

**THE DESIGN AND EVALUATION OF A SHORT-TERM**  
**GROUP PSYCHOTHERAPY MODEL FOR SURVIVORS OF A**  
**FIRST MYOCARDIAL INFARCTION**

**A thesis submitted in partial fulfilment of the  
requirements for the degree of  
DOCTOR OF PHILOSOPHY IN PSYCHOTHERAPY**

**of**

**RHODES UNIVERSITY**

**by**

**SHARON H. FREWEN**

**April 2005**

**Supervisor: Professor D. J. A. Edwards**

## ABSTRACT

There is extensive evidence that the rehabilitation of individuals with coronary heart disease needs to include psychological components to complement the exercise and dietary recommendations that are normally provided. However, psychological aspects have not been integrated into medical care in South Africa to any significant degree. Psychological interventions overseas have included the modification of the Type A behaviour pattern, stress management, cognitive restructuring, relaxation techniques, improved communication skills, the identification and expression of emotions, and emotional support. The aim of the present study was to design a short-term group intervention which incorporated these aspects and which included an exploration of the mind-body experience post infarct. In addition, the intervention aimed to increase participants' awareness of the compensatory dynamics of the Type A behaviour pattern. The intervention was tailored to South African conditions and was evaluated by means of a multiple case study design. The intervention was delivered to a group of nine coronary heart disease patients which included six survivors of myocardial infarction, the remaining participants having undergone a by-pass operation. Data included weekly feedback sheets evaluating each session, repeated measures on the Profile of Mood States, the Jenkins Activity Survey, a Spouse Rating Scale and extensive qualitative data on each participant including tape recordings of each session and data collected from a series of interviews before, during and after the programme. The feedback sheets and recordings of the sessions were used as a basis for recommendations for revising the content and structure of the programme for future use. Case narratives were written for three of the participants and provided an in-depth look at how and why individual

changes did or did not occur in response to the intervention. In addition, the case narratives revealed the role played by the compensatory dynamics of the Type A behaviour pattern in complicating rehabilitation for survivors of myocardial infarction. Two participants were offered a series of individual sessions at 18-month follow-up and the material from these sessions was also used to aid in the interpretation of the data. The content of the 18-month follow-up sessions provided evidence for the importance of conducting a developmental analysis of the origins of low self-esteem and insecurity that maintain and drive the Type A behaviour pattern. In these sessions, this analysis provided the basis for a brief focused psychodynamic psychotherapy that facilitated marked changes that had not been achieved in the 12-week structured group intervention. It is recommended that future research investigate the use of brief psychodynamic psychotherapy on an individual basis as a complement to a group intervention focusing on psycho-education, building social support and management of problematic emotions in everyday situations.

## ACKNOWLEDGEMENTS

The successful completion of this thesis was facilitated by a number of individuals. I therefore wish to thank:

- My supervisor, Professor Dave Edwards, for his unfailing moral support and for his insightful and caring mentoring throughout the process.
- The individuals who took part in my study, who so diligently attended all the sessions, who were so generous in sharing their past histories and vulnerabilities and who were available at all times to answer my questions. It has been an honour to work with you all!
- The staff at Rhodes University Library, especially Sue van der Riet, Senior Librarian; Debbie Martindale, Senior Library Assistant; Sue Rionda, Supervisor Interlibrary Loans; and Ann Stockwell, Clerical Assistant Interlibrary Loans. Thank you Sue for all the help with finding the literature and for locating those readings in a way that only you know how! Thank you Ann, Debbie and Sue for patiently handling all my requests for postage of books and articles over the years.
- My colleague Clinton Gähwiler who gave of his time to assist in the running of the groups.
- The Vincent Pallotti Hospital for the use of their conference facilities.
- Dr David Nathan, Dr Kevin Sheehy and Dr Zanda Jaquire for their patience and time in helping me to accurately present the medical literature.
- My friend Conlan Hartmann for helping me set up the graphs and tables and for the many hours of computer assistance. Thank you Conlan! Without your help this would have been an impossible task.
- My friend and colleague Cath Coetzee for reading the drafts and for her moral support.
- My friends, Joan Rhodes, Tony and Adèle Flint, Dr Lorraine Thiel, Dr Estelle de Wit and Pieter Du Toit Smit for the endless cups of tea and their ongoing encouragement.
- My brother Wayne, his wife Lawrene, and my sister Rosslyn for their special words of encouragement and love.
- My parents, Rodney and Sheila Frewen, for their love, courage and inspiration. It is to them that I dedicate this work.

LIST OF ABBREVIATIONS

CAD	Coronary artery disease
CABG	Coronary artery by-pass surgery
CHD	Coronary heart disease
ECG	Electrocardiogram
ECHO	Echocardiogram
HBAS	Health Behaviour Assessment Scale
HDL	High-density-lipoprotein
IHD	Ischaemic heart disease
JAS	Jenkins Activity Survey
LAD	Left anterior descending artery
LCA	Left coronary artery
LCx	Left circumflex artery
LDL	Low-density-lipoprotein
LHT	Lifestyle Heart Trial
MI	Myocardial infarction
PTCA	Percutaneous transluminal coronary angioplasty
POMS	Profile of Mood States
RCA	Right coronary artery
RCPP	Recurrent Coronary Prevention Project
SARCPP	South African Recurrent Coronary Prevention Project
SI	Structured Interview
SRS	Spouse Rating Scale
TABP	Type A Behaviour Pattern
TMD	Total Mood Disturbance
VSI	Videotaped Structured Interview

### LIST OF FIGURES

Figure 1	Diagrams of various types of vessel disease	6
Figure 2	Progression of atheromatous plaque from initial lesion to complex and ruptured plaque	9
Figure 3	Schematic representation of an artery with mature atheromatous plaque	10
Figure 4	Triangle of Relating	103
Figure 5	Jenkins Activity Survey scores for AvR	144
Figure 6	Spouse Rating Scale scores for AvR	146
Figure 7	Profile of Mood States scores for AvR for Tension, Depression and Anger	149
Figure 8	Profile of Mood States scores for AvR for Vigour, Fatigue and Confusion	150
Figure 9	Self-Monitor homework Sheet for AvR	155
Figure 10	Bombs and Fuses homework Sheet for AvR	158
Figure 11	Session 6 homework Sheet for AvR	161
Figure 12	Triangle of Relating homework Sheet for AvR	166
Figure 13	Jenkins Activity Survey scores for LR	193
Figure 14	Spouse Rating Scale scores for LR	195
Figure 15	Profile of Mood States scores for LR for Tension, Depression and Anger	196
Figure 16	Profile of Mood States scores for LR for Vigour, Fatigue and Confusion	197
Figure 17	Self-Monitor homework Sheet for LR	200
Figure 18	Second Self-Monitor homework Sheet for LR	203
Figure 19	Bombs and Fuses homework Sheet for LR	205
Figure 20	Time Urgency homework Sheet for LR	209
Figure 21	Underlying Belief System homework Sheet for LR	210
Figure 22	Session 6 homework Sheet for LR	212
Figure 23	Triangle of Relating homework Sheet for LR	215
Figure 24	Jenkins Activity Survey scores for EN	228
Figure 25	Spouse Rating Scale scores for EN	229
Figure 26	Profile of Mood States scores for EN for Tension, Depression and Anger	230
Figure 27	Profile of Mood States scores for EN for Vigour, Fatigue and Confusion	231
Figure 28	Self-Monitor homework Sheet for EN	234
Figure 29	Time Urgency homework Sheet for EN	236
Figure 30	Jenkins Activity Survey scores for all dropouts at the assessment interview	286

LIST OF TABLES

Table 1	Demographic information and medical status of participants	112
Table 2	Time frame and implementation of data collection	117
Table 3	Summary of six-week and eighteen-month follow-up questionnaire scores	266
Table 4	Jenkins Activity Survey standard scores for this study	268
Table 5	Comparison of Jenkins Activity Survey mean standard scores for this study with other studies	282

Acknowledgements	ii
Abstract	iii
List of Abbreviations	v
List of Figures	vi
List of Tables	vii

## TABLE OF CONTENTS

<b>INTRODUCTION</b>	1
---------------------	---

### *Chapter One*

<b>1.</b>	<b>CORONARY HEART DISEASE</b>	
1.1	The cardiovascular system	4
1.2	Coronary heart disease and atherosclerosis	7
1.3	Atherosclerosis and risk factors for coronary heart disease	8
1.3.1	The unmodifiable risk factors	11
1.3.2	The modifiable risk factors	11
	(a) The modifiable primary risk factors	12
	(b) The modifiable secondary risk factors	14
1.4	The advanced stage of atherosclerosis: Angina pectoris and myocardial infarction	15
1.4.1	Angina pectoris	15
	(a) Investigative procedures for angina pectoris	17
	(b) Treatment for chronic stable angina	18
	(c) Treatment for unstable angina	20
1.4.2	Myocardial infarction	20
	(a) Investigative procedures after myocardial infarction	22
	(b) Treatment after myocardial infarction	23
1.5	Compliance with cardiac medical and lifestyle interventions	24

*Chapter Two*

<b>2.</b>	<b>CORONARY HEART DISEASE AND PSYCHOLOGICAL FACTORS</b>	
2.1	Stress, coronary heart disease and the Type A behaviour pattern	25
2.2	The Type A behaviour pattern	27
	(a) An early medical model of the pattern	27
	(b) A psychosocial model of the pattern	28
2.2.1	Time urgency	29
2.2.2	Job involvement	31
2.2.3	Hard-driving and competitive behaviour	31
2.2.4	Hostility and aggression	32
2.3	Type As and Type Bs	32
2.4	The Type A behaviour pattern and modern-day living	33
2.5	The presence of the behaviour pattern as a predictor of ill-health	33
2.6	The Type A behaviour pattern in coronary heart disease patients	35
2.6.1	Predictive studies	36
2.6.2	Differential stress response and stress management in Type As and Type Bs	37
	(a) Differential reactions to stressors	38
	(b) Differential hormones released when under stress	39
	(c) Differential rates of blood clotting and serum cholesterol levels	40
	(d) A comparison of smoking habits	41
	(e) The physical and psychological consequences of stress	41
2.7	The psychological and psychosocial consequences of the Type A behaviour pattern	43
2.8	Psychodynamic formulations of the Type A behaviour pattern	44
	(a) A coping mechanism for exerting control over environmental demands	45
	(b) A compensation for low self-esteem and insecurity	46
	(c) A social learning model perspective: The impact of the family	48
	(d) A relational model perspective: The mother-child relationship	49
	(i) An optimal developmental trajectory	49
	(ii) A less than optimal developmental trajectory	52

	(e) The development of a compensatory pattern	54
2.9	The psychological impact of myocardial infarction	58
2.10	The post-myocardial infarction body relationship	62
2.11	Concluding remarks	65

### *Chapter Three*

<b>3.</b>	<b>CORONARY HEART DISEASE AND EXISTING PSYCHOTHERAPEUTIC INTERVENTION MODELS</b>	
3.1	Psychological interventions with individuals with undeveloped coronary heart disease	66
3.2	Psychological interventions with individuals with coronary heart disease	67
3.2.1	The Recurrent Coronary Prevention Project (RCPP)	69
3.2.2	The Lifestyle Heart Trial (LHT)	72
3.2.3	Results from other intervention studies	74
3.3	Concluding remarks	78

### *Chapter Four*

<b>4.</b>	<b>METHODOLOGY: PART I: DESIGN OF THE 12-WEEK INTERVENTION</b>	
4.1	Aims of the study	80
4.2	Psychological rehabilitation after myocardial infarction	81
4.3	General comment on the design of the intervention	82
4.4	<u>Session 1: Introduction to one another, the programme, relaxation, how the heart works and coronary heart disease factors. Group discussion on the heart attack experience and prescribed medication</u>	84
	(a) Aims	84
	(b) Design process and session outline	84
	(c) Progressive Relaxation Training	85
4.5	Sessions 2, 3 and 4: The Type A behaviour pattern	86
4.5.1	<u>Session 2: The Type A behaviour pattern</u>	86
	(a) Aims	86

	(b) Design process and session outline	87
	(i) The “Self-Monitor”	87
	(ii) “Bombs and Fuses”	88
4.5.2	<u>Session 3: Reducing Time Urgency</u>	88
	(a) Aims	88
	(b) Design process and session outline	89
4.5.3	<u>Session 4: Reducing anger and hostility</u>	91
	(a) Aims	91
	(b) Design process and session outline	91
	(i) The “Bait and Hook” exercise	92
	(ii) The AIAI acronym	93
4.6	Sessions 5 and 6: Effective communication and empathic listening	93
4.6.1	<u>Session 5: The identification and expression of feelings</u>	93
	(a) Aims	93
	(b) Design process and session outline	94
4.6.2	<u>Session 6: Listening with empathy and compassion</u>	95
	(a) Aims	95
	(a) Design process and session outline	95
4.7	Sessions 7, 8 and 9: The compensatory nature of the TABP	97
4.7.1	<u>Sessions 7: Basic psychological concepts, narcissism and the Type A behaviour pattern</u>	97
	(a) Aims	97
	(b) Design process and session outline	98
	(i) Behaviour	98
	(ii) The conscious and the unconscious	98
	(iii) The “self and other”	99
	(iv) The Greek myth of Narcissus	100
	(v) Defence mechanisms	100
4.7.2	<u>Session 8: The “Triangle of Relating”</u>	101
	(a) Aims	101
	(b) Design process and session outline	101
4.7.3	<u>Session 9: General discussion</u>	102

	(a) Aims	102
	(a) Design process and session outline	102
4.8	Sessions 10 and 11: The post-infarct mind-body relationship	104
4.8.1	<u>Session 10: The mind-body connection</u>	104
	(a) Aims	104
	(b) Design process and session outline	105
4.8.2	<u>Session 11: The lived body experience after myocardial infarction</u>	106
	(a) Aims	106
	(b) Design process and session outline	107
4.9	<u>Session 12: Summary of past 11 weeks and closure</u>	107
	(a) Aims	107
	(b) Design process and session outline	107
4.10	Concluding remarks	108

### *Chapter Five*

<b>5.</b>	<b>METHODOLOGY PART II: IMPLEMENTATION AND DATA COLLECTION</b>	
5.1	Participants	109
5.1.1	Initial inclusion criteria	109
5.1.2	Rationale for the inclusion criteria	109
5.1.3	Exclusion criteria	110
5.1.4	Process of selecting participants	110
5.1.5	Revised inclusion criteria and participant spread	111
5.1.6	Participant dropout	113
5.2	Implementation of the intervention	113
5.3	Methodology: Multiple case study design	114
5.4	Data collection	116
5.4.1	Informed consent and contract with participants	116
5.4.2	The Frewen Cardiac Rehabilitation Psychological Assessment Interview	118
5.4.3	The Profile of Mood States (POMS)	119
5.4.4	The Jenkins Activity Survey (JAS)	121
	(a) Criticisms of the Jenkins Activity Survey	123

5.4.5	The Spouse Rating Scale (SRS)	125
5.4.6	Weekly feedback sheets	126
5.4.7	Research interviews	126
5.4.8	Homework and drill sheets	127
5.4.9	Group session videotapes	127
5.4.10	General	128
5.4.11	Six-week and eighteen-month follow-up	128
5.4.12	Individual psychotherapy session	129
5.5	Data reduction	129

## *Chapter Six*

<b>6.</b>	<b>RESULTS: CASE NARRATIVES</b>	
6.1	<u>Case narrative one: AvR</u>	133
	(a) Initial assessment, July 2002	133
	(b) Background information	134
	(c) Medical history and coronary heart disease risk factors	141
	(d) Formulation	142
	(e) Session 1: Introduction to one another, the programme, relaxation, how the heart works and coronary heart disease risk factors. Group discussion on the heart attack experience and medication	148
	(f) Sessions 2 to 4: The Type A behaviour pattern	152
	(g) Sessions 5 and 6: Identifying and expressing feelings, listening with empathy and effective communication	162
	(h) Sessions 7 to 9: The compensatory nature of the Type A behaviour pattern	164
	(i) Sessions 10 and 11: The lived body and the mind-body connection	165
	(j) Session 12: Summary of past 11 weeks and closure	168
	(k) Follow-up and summary	170

6.2	<u>Case narrative two: LR</u>	
	(a) Initial assessment, July 2002	174
	(b) Background information	175
	(c) Medical history and coronary heart disease risk factors	188
	(d) Formulation	189
	(e) Session 1: Introduction to one another, the programme, relaxation, how the heart works and coronary heart disease risk factors. Group discussion on the heart attack experience and medication	198
	(f) Sessions 2 to 4: The Type A behaviour pattern	199
	(g) Sessions 5 and 6: Identifying and expressing feelings, listening with empathy and effective communication	211
	(h) Sessions 7 to 9: The compensatory nature of the Type A behaviour pattern	213
	(i) Sessions 10 and 11: The lived body and the mind-body connection	216
	(j) Session 12: Summary of past 11 weeks and closure	217
	(k) Follow-up and summary	219
6.3	<u>Case narrative three: EN</u>	223
	(a) Initial assessment, July 2002	223
	(b) Background information	223
	(c) Medical history and coronary heart disease risk factors	225
	(d) Formulation	226
	(e) Session 1: Introduction to one another, the programme, relaxation, how the heart works and coronary heart disease risk factors. Group discussion on the heart attach experience and medication	232
	(f) Sessions 2 to 4: The Type A behaviour pattern	233
	(g) Follow-up and summary	237

*Chapter Seven*

<b>7.</b>	<b>DISCUSSION</b>	
7.1	A thematic evaluation and discussion of the intervention model	246
7.1.1	Myocardial infarction: Comparing the experience	246
7.1.2	Myocardial infarction: The physiology of how and why it happened	249
7.1.3	Stress and coronary heart disease	250
7.1.4	Increasing awareness of the manifestations and compensatory nature of the Type A behaviour pattern	252
7.1.5	The identification and expression of feelings and improved empathic communication	255
	(a) Empathic communication (Session 6)	255
	(b) The identification and expression of feelings (Session 5)	256
7.1.6	Increasing psychological mindedness to facilitate further understanding of the compensatory nature of the TABP	258
7.1.7	Metaphoric language as a way of understanding the post-infarct mind-body relationship	260
7.2	An evaluation and discussion of the format of the intervention	263
7.2.1	Length of the intervention	263
7.2.2	A group intervention format	263
7.2.3	A combination of group and individual sessions	265
7.2.4	Long-term follow-up	265
7.3	A developmental analysis of the origins of the low self-esteem and insecurity underlying the compensatory nature of the Type A behaviour pattern	267

*Chapter Eight*

<b>8.</b>	<b>CONCLUSIONS AND RECOMMENDATIONS</b>	
8.1	Limitations of the study and thoughts for future research	278
8.1.1	Lack of physiological data	278
8.1.2	Participants	278
8.1.3	Limitations of the data collection methods	280

	(a) The Profile of Mood States (POMS)	280
	(b) The Jenkins Activity Survey (JAS)	281
	(c) The Spouse Rating Scale (SRS)	287
8.2	Reluctance of medical professionals to refer to psychological interventions	288
8.3	Summary of the recommended changes to the format of the intervention	290
8.4	Summary of the recommended changes to the lecture content of the intervention	291
8.5	Concluding remarks	293
	<b>REFERENCES</b>	294

## VOLUME TWO

	<b>LIST OF APPENDIXES</b>	313
	<b>APPENDIXES A TO AAA</b>	315-426

## INTRODUCTION

In South Africa, 25% of myocardial infarction (MI) result in sudden cardiac death, placing an MI as the leading cause of death for Asian, White and Coloured individuals over the age of 15 (Bradshaw, Laubscher & Schneider, 1995; Bradshaw, Schneider, Dorrington, Bourne & Laubscher, 2002). Black Africans generally die from diseases related to poverty and under-development (Bradshaw et al., 2002) with few heart attacks occurring in the Black African community (Medical Research Council of South Africa News, 2001). However, as people adopt a typical Western lifestyle, so their risk profiles will increase. This transition is now occurring in the Black African community where hypertension and diabetes are becoming increasingly prevalent (Medical Research Council of South Africa News, 2001). As a result, the presence of these secondary risk factors for CHD may well, in time, contribute towards an increased mortality rate for the disease in the Black African community.

In countries such as America, Canada and Australia, only 15% of first-time MIs are associated with sudden death, a statistic which has been ascribed to earlier detection and improved surgical care (Allan & Scheidt, 1996; Wielgosz & Nolan, 2000). At least 45% of coronary heart disease occurs under the age of 65, with two-thirds of these individuals going on to achieve some level of recovery (Allan, 1996). A high percentage of individuals therefore survive an MI and require medical, physical and psychological input in order to reach a level of optimal functioning and wellness. This emphasises the importance of cardiac rehabilitation for secondary prevention and improved quality of life (Grace et al., 2002; World Health Organization, 1993). However, even with

improved intervention and medical techniques, the risk of re-infarction and death after MI is prevalent (Timmons, 1984). This has been attributed to poor compliance with prescribed medication and a 50% attrition rate for CHD rehabilitation programmes within the first year of attendance (Burke, Dunbar-Jacob & Hill, 1997; Oldridge, 1982; 1984).

Poor compliance is a multivariate phenomenon (Haynes, 1979), one contributory factor being an absence of psychological readiness for change (Becker et al., 1977). This includes the mind-set of the MI survivor before and after the life-threatening experience. Research in this area found that by addressing the psychosocial aspects that contribute towards the development of CHD, a 44% decrease in new coronary events was achieved (Bracke & Thoresen, 1996; Friedman et al., 1986). The researchers of the Lifestyle Heart Trial (Billings, Scherwitz, Sullivan, Sparler & Ornish, 1996; Ornish et al., 1983; 1990) ran a comprehensive lifestyle intervention that also addressed the psychosocial issues and found a decrease in the diameter of the blocked artery.

In the early eighties, local research already pointed to the need for a rehabilitation model that included psychotherapeutic intervention (Fullard, 1982). However, South African cardiac rehabilitation programmes still only emphasise the medical and physical aspects, such as exercise and diet. None of them include a structured psychotherapeutic intervention as part of a rehabilitation model (M. Bartlett, Head Office, Heart Foundation of South Africa, personal communication, May 2002). Those programmes that do acknowledge the importance of psychological support do so on a needs-basis only. The design and implementation of a short-term psychotherapeutic intervention that addresses

the pre- and post-MI psychological issues which impede rehabilitation and accelerate the chances of re-infarction are therefore warranted for the local context. This study set out to develop and evaluate a culturally appropriate short-term psychotherapy intervention model for survivors of an MI in South Africa.

## CHAPTER ONE

### Coronary Heart Disease

Ischaemic heart disease (IHD) or coronary heart disease (CHD) are terms used interchangeably to refer to cardiovascular conditions caused by coronary artery disease (CAD), a disease of the arteries that feed the heart. Symptoms of CAD include either stable or unstable angina pectoris, arrhythmia (irregular heartbeat), heart failure, silent ischaemia (silent MI or heart attack), acute MI (which the person survives), and sudden cardiac death, defined as death within one hour of the onset of symptoms (Cotran, Kumar & Robbins, 1989; Scheidt, 1996). By the time CHD presents as an MI, or angina pectoris, or both, a complex series of factors originating very early in life, have contributed towards the disease. The implementation of a psychotherapeutic intervention after an MI requires an understanding of both how CHD develops and the intricate relationship between the physical and psychological contributing factors. In this chapter, the medical and most commonly accepted contributory physical and lifestyle factors are reviewed.

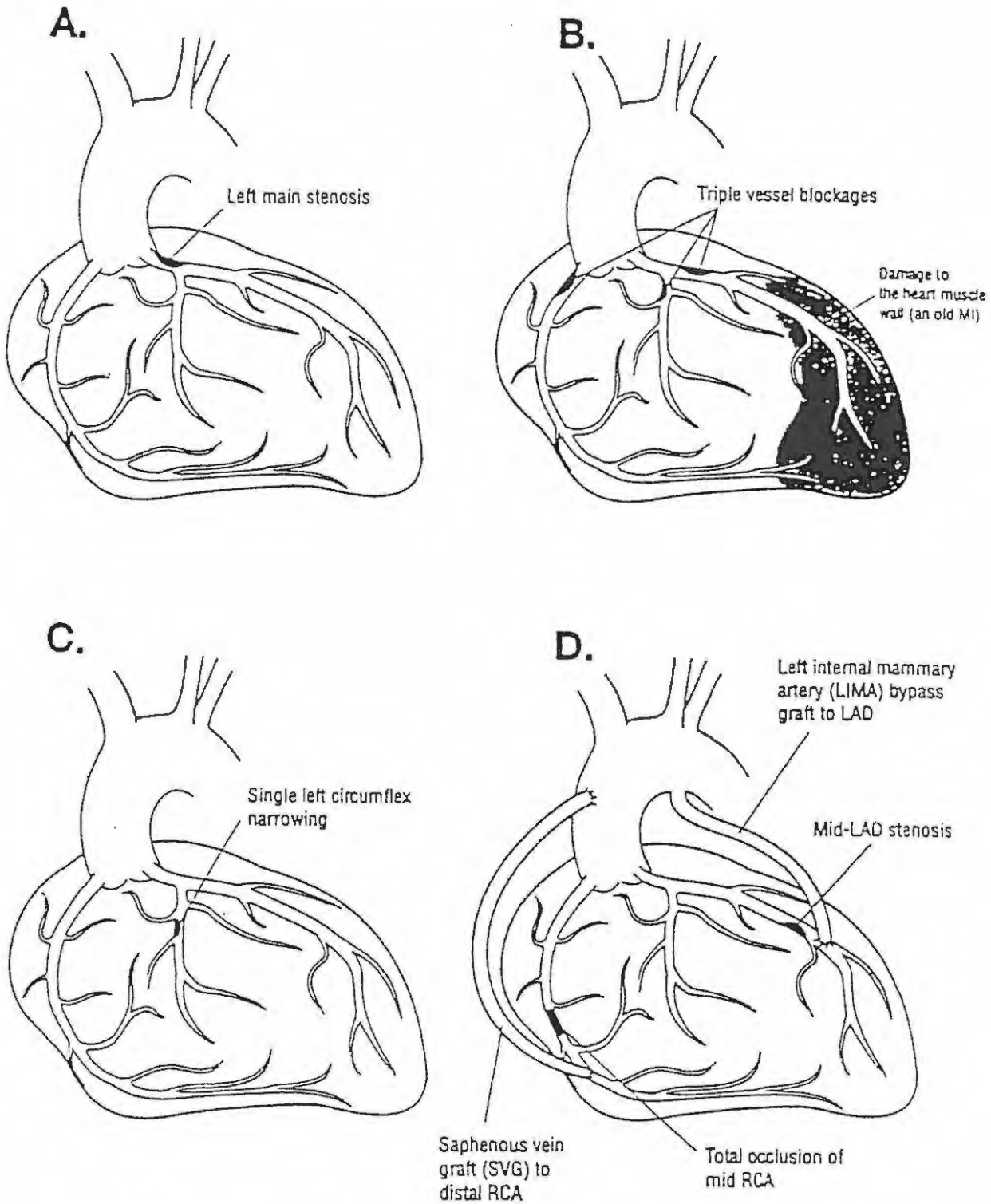
#### 1.1 The cardiovascular system

The cardiovascular system is a circulatory system consisting of the heart and a closed system of blood vessels called arteries, veins and capillaries (Cotran et al., 1989). Shaped somewhat like an egg, the heart is approximately the size of a person's fist and is located behind the breastbone, usually a little to the left of the centre of the chest. The basic function of the heart (a muscular pump) is to circulate blood throughout the body. In

order to carry out this function, the heart requires its own supply of oxygenated blood. The supply of oxygenated blood is provided via the coronary artery system (Cotran et al., 1989).

Two main coronary arteries originate from the aorta, the largest artery of the body, and from this origin run along the outside surface of the heart muscle and then branch out into smaller arteries that penetrate the heart muscle at different points. The right coronary artery (RCA) supplies oxygenated blood to the front and underneath of the right side of the heart muscle. The left coronary artery (LCA) splits into two after running along the surface of the heart for only a short distance. One branch of the LCA, the left anterior descending (LAD) artery, supplies oxygenated blood to the front of the heart muscle. The other branch of the LCA carries oxygenated blood to the back of the heart muscle and is called the left circumflex (LCx) artery. The LCA and its two branches usually supply a considerably larger area of heart muscle with oxygenated blood than does the RCA (Cotran et al., 1989). Disease of the proximal section of the LCA is therefore a determining factor with regard to the severity and prognosis for CHD. Figure 1 presents diagrams of the various types of vessel disease (Scheidt, 1996). In most cases, single-vessel disease has the best prognosis, while multiple-vessel disease has a worse prognosis. The implications stemming from disease of the various arteries are discussed throughout this chapter.

Diagrams of various types of vessel disease



From Scheidt (1996)

A: Left main stenosis which is very dangerous. B: Proximal triple-vessel blockages, also very dangerous. C: Single left circumflex narrowing, not statistically that dangerous. D: Double vessel-disease shown with by-pass grafts.

## 1.2 Coronary heart disease and atherosclerosis

Optimal functioning of the coronary artery system is vital for life and for effective nourishment of the heart muscle. Disease of this system therefore has severe implications for a person's cardiac health. Atherosclerosis is the underlying pathological process in CHD and refers to an abnormal build-up of fatty deposits in the inner layer of an artery that can eventually interfere with the blood flow to the heart muscle (Cotran et al., 1989; Grech, 2003b; Ross, 1986, 1999; Steinberg, 1983). Atherosclerosis is characteristically a "silent disease" that can start from age 10 to 15 but which naturally advances with age. By the time it manifests in symptomatic form as arrhythmia, heart failure, angina pectoris, silent ischaemia, an acute MI or sudden cardiac death, it is well advanced (Grech, 2003b).

It is hypothesised that microscopic injury to the endothelium (or inside lining) of the artery wall initiates the disease process of atherosclerosis (Ross, 1986, 1999; Steinberg, 1983). When injury results in the denuding of the endothelial surface, an inflammatory process sets in which interrupts the release of vasodilators and results in vasoconstriction (a clamping down of the artery and loss of the normal dilated state of the vessel). Platelets can then adhere to the underlying connective tissue at the site of injury where they aggregate and release chemicals that promote thrombus formation (clotting) and vasoconstriction. Simultaneously, at the site of injury to the endothelium, smooth muscle cells and circulating blood cells called monocytes penetrate the intima (the layer between the endothelium and the smooth muscle) where they proliferate and change their phenotype. The monocyte blood cells ingest lipids, the ingestion of which converts them

to foam cells, while the connective tissue from the smooth muscle cells changes its phenotype and forms a fibrous capsule around the foam cells or lipid core.

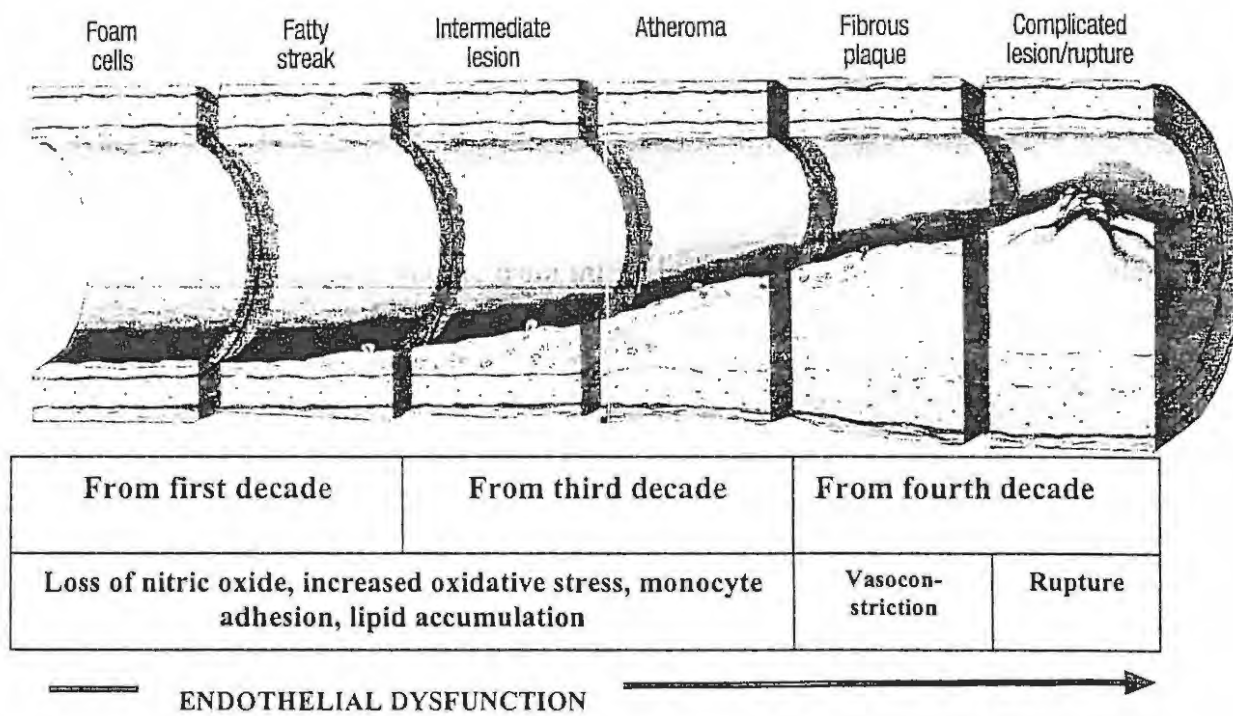
Over a period of time deposits of monocytes, platelets, smooth muscle cells, calcium and cholesterol crystals form a plaque on the inside of the originally smooth endothelium of the coronary arteries (Celermajer, 1997; Forgione, Leopald, & Loscalzo, 2000) (see Figure 2). Mature atherosclerotic plaque is made up of a lipid core of foam cells surrounded by a fibrous capsule (Cotran et al., 1989; Leaf & Weber, 1988) and once it reaches a certain size, causes irregularities of the endothelial surface (see Figure 2). The endothelium consequently loses its elasticity and becomes unstable and vulnerable. As the build-up of plaque increases, the lumen (or internal diameter of the artery) is reduced and the artery narrowed (see Figure 3). In lay terms, this atherosclerotic plaque is referred to as “hardening of the arteries”. At this point, atherosclerosis is in the advanced stage of development and is usually prevalent in an individual predisposed to CHD. For such an individual, the endothelium is increasingly damaged and the process of atherosclerosis is accelerated (Cotran et al., 1989; Leaf & Weber, 1988).

### 1.3 Atherosclerosis and risk factors for coronary heart disease

In individuals with certain predisposing risk factors, atherosclerosis can accelerate and worsen. A risk factor is any variable that is found to co-vary in multivariate studies with the development of CHD (Perkins, 1989). These risk factors play a more or less direct causal role in CHD in terms of how they exacerbate atherosclerosis. Early screening of at-risk patients through family history and genetic make-up is therefore imperative for

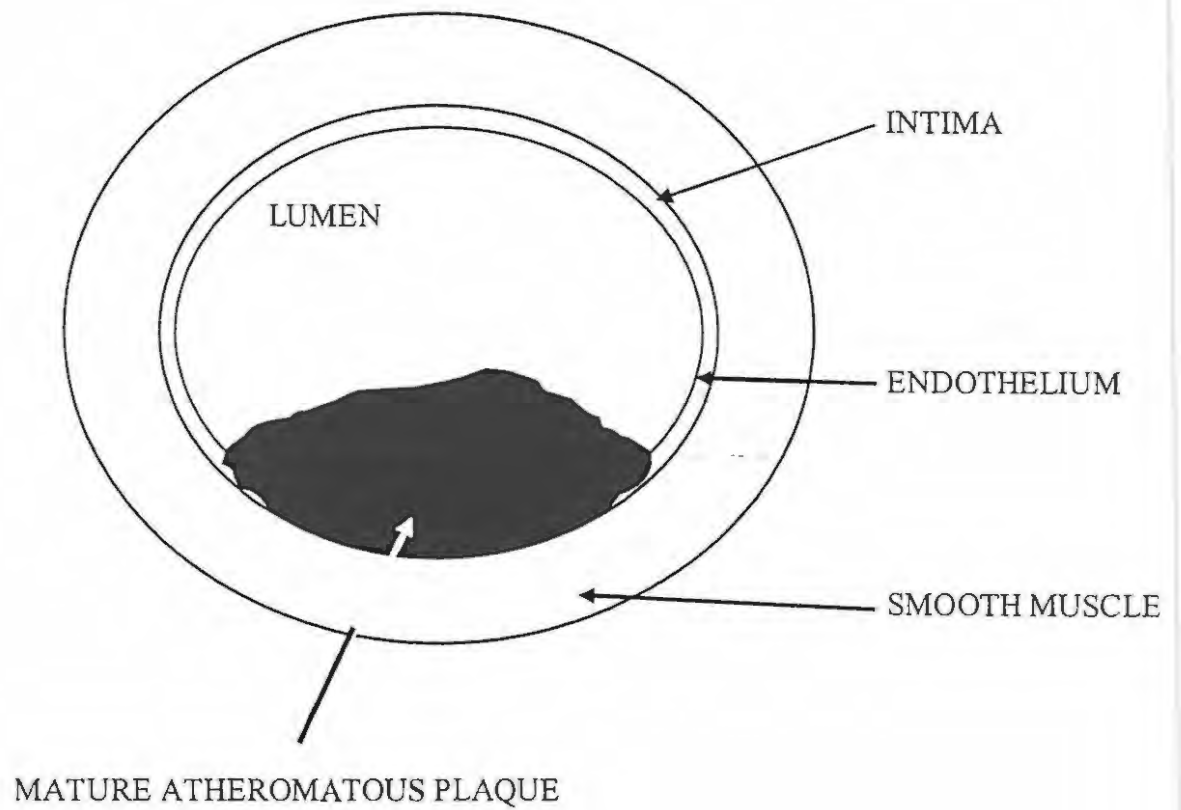
Figure 2

Progression of atheromatous plaque from initial lesion to complex and ruptured plaque



From Grech (2003b) and Pfizer laboratories (undated) handout on endothelial dysfunction

Figure 3

Schematic representation of an artery with mature atheromatous plaque

From Grech and Ramsdale (2003b)

revealing factors amenable to intervention. In the following section those medically accepted physical and lifestyle risk factors that play a significant role in the development of CHD are discussed. These risk factors are usually referred to as the “unmodifiable” and “modifiable” risk factors.

### 1.3.1 The unmodifiable risk factors

A person’s genetic make-up in terms of gender and family history is referred to as an “unmodifiable risk factor”. Males with a family history of the disease are at increased risk for CHD while women remain protected until the age of 40. After 40 the onset of menopause and a change in hormones leaves women more susceptible. While unmodifiable risk factors provide a genetic potential for the development of CHD, it is the presence of other risk factors that accelerates the manifestation of the disease (Cotran et al., 1989; Friedman & Rosenman, 1974; Perkins, 1989).

### 1.3.2 The modifiable risk factors

Modifiable risk factors are so called because medical and lifestyle interventions can attenuate their significance. There are two categories of modifiable risk factors, namely, primary and secondary risk factors. Any one of the primary risk factors can accelerate the process of atherosclerosis but the likelihood of the disease worsening is incrementally increased with the presence of multiple risk factors (Grech, 2003a).

(a) The modifiable primary risk factors

Primary risk factors are those conditions that play a direct causal role in the development of atherosclerosis by causing damage to the endothelium. The removal of these risk factors significantly decreases the risk of CHD. The primary risk factors are:

(i) Raised cholesterol: The body's cholesterol is derived from two sources. The first is from the liver which produces sufficient cholesterol for the body's needs such as in the manufacturing of hormones and as a component of cell walls. The second is from the excess amounts of cholesterol that are consumed from fatty foods in the diet. An excess from either source will contribute towards the development of atherosclerosis. The concentration of cholesterol per volume of blood is measured in millimols per litre (in the United States it is grams per 100ml). For example, a moderate cholesterol level for an individual of 60 years of age is 5,80 and a high level is 7,70. However, more important than the overall cholesterol level, is the ratio between the two kinds of cholesterol present in the blood. High density lipoprotein (HDL) is commonly referred to as "good" cholesterol and helps clear excess cholesterol from the blood back to the liver. Low-density-lipoprotein (LDL), or "bad" cholesterol, is found in the fatty deposits in the arteries and increases the risk for CHD (Cotran et al., 1989).

According to the LDL receptor hypothesis, the development of atherosclerosis is accelerated by a high concentration of LDL-cholesterol in the blood (Brown & Goldstein, 1984). It is suggested that cholesterol in the blood penetrates the endothelium at the site of injury and contributes towards the process of atherosclerosis. Therefore, a high HDL will help clear high levels of LDL while a low HDL and a high HDL will be a risk factor

for developing CHD. Although moderate cholesterol levels can usually be managed with an eating plan that controls fat intake, as well as an exercise regimen, aggressive treatment of raised LDL-cholesterol by means of lipid lowering drugs such as statins and dietary control is standard. Clinical trials that compared cholesterol concentration and degree of atherosclerosis by means of autopsy, angiography, coronary calcification and degree of peripheral atherosclerosis, indicated that a raised cholesterol level did not always predict the degree of atherosclerosis (Ravnskov, 2002). The correlation between cholesterol concentration and degree of atherosclerosis is a topic of ongoing medical research. For now, cholesterol continues to be treated as a primary risk factor in CHD.

(ii) Smoking: Smoking affects blood pressure and has a direct influence on the risk of increased blood clotting. The toxins nicotine and carbon monoxide from smoking not only reduce the oxygen in the blood, resulting in vasoconstriction of the arteries and an increase in blood pressure (hypertension), but also damage the endothelium.

(iii) Diabetes mellitus: The raised blood sugar occurring in diabetes mellitus has also been shown to damage the endothelial surface. This damage then creates points of weaknesses that are rendered susceptible to atherosclerotic build-up.

(iv) Hypertension: In individuals with high blood pressure, changes occur within the vascular endothelium resulting in impaired endothelial function (Gibbons & Dzau, 1994; Panza, Quyyumuni, Callahan & Epstein, 1993). One cause of injury to the endothelium has been ascribed to vulnerability of the very narrow blood vessels when blood is circulated under pressure that is above “normal”, that is, high blood pressure (hypertension). High blood pressure in a diseased artery requires the heart muscle to

work harder under pressure. It is the increased pressure in the artery that adds to the possibility of damage to the endothelium.

(b) The modifiable secondary risk factors

Secondary risk factors refer to a wide variety of conditions that affect the primary risk factors and therefore indirectly contribute to the development of CHD. These secondary risk factors are:

(i) Poor eating habits: Poor eating habits contribute towards a raised cholesterol level, which in turn advances the process of atherosclerosis. Foods high in fat such as full cream dairy products (e.g., biscuits, cake and chocolate), as well as fatty meats, such as lamb, are examples of culprit food groups. A high salt intake exacerbates hypertension.

(ii) Obesity: Obesity has been associated with heart failure, stroke and MI independent of lipid status, diabetes mellitus, hypertension and coronary endothelial dysfunction (Suwaidi, Higano, Holmes, Lennon & Lerman, 2001). Obesity also requires more physical output from the cardiovascular system. The standard measurement is the body mass index (BMI), which is an indication of mass per height (Garrow & Webster, 1985). It is determined by dividing the mass (in kilograms) of a person by the square of their height (in metres). This gives a result measured in kilograms per metre squared. Individuals with obesity have a BMI that ranges from 30 to 40 while that of very obese individuals ranges from 40 to 68. A healthy BMI falls in the 18 to 25 range with 18 being the upper limit for underweight individuals.

(iii) Sedentary lifestyle: Regular physical exercise reduces the risk of developing CHD because it increases cardiovascular efficiency and facilitates circulation (Miller, Balady

& Fletcher, 1997). It is also important for rehabilitation purposes in terms of reducing risk factors such as cholesterol levels and blood pressure, for the impact it has on a patient's sense of well being, and for its contribution to stress management (Oldridge, Guyatt, Fischer & Rimm, 1988).

#### 1.4 The advanced stage of atherosclerosis: Angina pectoris and myocardial infarction

By the time CHD presents as either angina pectoris or myocardial infarction, or both, there is generally atherosclerotic narrowing of one, two or even all three of the major coronary arteries or their main branches, respectively referred to as single, double and triple-vessel disease (see Figure 1, section 1.1).

##### 1.4.1 Angina Pectoris

Angina pectoris indicates the inevitable presence of advanced coronary atherosclerosis that has resulted in a narrowing of more than 50% of the lumen diameter or more than a 75% reduction in cross-sectional area (Grech, 2003a) (see Figure 3). When angina pectoris occurs, it manifests as a warning pain that signals a depleted supply of oxygenated blood to the heart muscle. The pain is most commonly experienced as a "tight band" across the chest but can also occur in the left, or both arms, jaw and neck and even only as shortness of breath. Angina attacks limit an individual's exercise tolerance and are frightening and painful. Relief from angina pain can be achieved with rest alone, but ideally a nitrate spray or tablet equivalent that dilates the artery and reduces the blood pressure should be used.

Angina pectoris can present as either chronic stable angina or as unstable angina (O'Toole & Grech, 2003). Chronic stable angina can continue for years or decades with little change in the patient's health status. It presents with a predictable pattern and the same amount of effort produces the same level of angina pain and subsides again within the same time of resting. Unstable angina, on the other hand, indicates a worsening of the disease in that the pain occurs more frequently, with less and less effort, and takes longer to subside. Pain can eventually occur even at rest. The prognosis for unstable angina is substantially worse than for chronic stable angina (O'Toole & Grech, 2003). Appendix A outlines a widely used graded classification of angina (Grech, 2003b).

Angina is mostly precipitated by an event that requires exertion or that places an increased demand on the cardiovascular system. However, as indicated above, depending on the severity of arterial disease as in unstable angina, pain may occur even at rest. In order to meet the increased bodily demand for oxygen, the heart muscle works harder to pump the blood through the body under greater pressure and with more force and speed. The heart muscle itself therefore demands more oxygenated blood to carry out the job at hand. At this time, narrowing in the coronary artery (or arteries) results in an insufficient supply of oxygenated blood to the heart muscle. Angina pectoris then occurs as a warning pain that signals this deficiency. Physical exertion is a major precipitating factor for angina pectoris because of the high demand that it places on the heart muscle to supply the body with more oxygen.

Besides physical exertion, other common precipitating factors include extreme cold or heat, consumption of alcohol, a large meal, mental stress, emotional upset, anger, rushing around and time pressure, all of which require extra output from the cardiovascular system (Grech, 2003a). An individual prone to angina pectoris can, for example, experience pain while swimming in very cold water, taking a hot shower and through exertion in extreme weather. Walking up a hill, hurrying to catch a train to work or even an argument with a spouse are other conditions that may elicit an angina attack.

(a) Investigative procedures for angina pectoris

Patients presenting with chest pains can already be identified as having possible or even definite angina pectoris based on their history and an assessment of risk factors (Grech, 2003b). However, various investigative procedures are usually used to assess the severity of the CAD and these are categorised as either non-invasive or invasive methods.

The non-invasive investigations include an electrocardiogram (ECG) and an exercise or stress ECG. For an ECG, electrodes are attached to the chest to measure the electrical activity of the heart. Like any muscle, the heart requires electrical impulses for it to contract. These electrical impulses are conducted through the heart and can be recorded by the ECG. The waves should form predictable patterns and certain deviations from those patterns indicate problem areas. An exercise or stress ECG records an individual's achieved workload and ECG response during graded exercise on a treadmill or exercise bicycle while hooked up to an ECG machine. It is the most widely used test for evaluating individuals with suspected angina (Grech, 2003b). A poor prognosis is

indicated for those individuals who have a reduced capacity for exercise, an abnormal blood pressure response and profound ischaemic ECG changes (Grech, 2003b).

An angiogram is an invasive procedure that is the only absolute way of evaluating the full extent of CAD. Even after a by-pass operation, it is performed on patients presenting with any of the following: a strong positive stress ECG, poor control with drug treatment, an uncertain diagnosis of angina if CAD cannot be excluded by non-invasive testing, or continual angina (Grech, 2003b). The procedure involves the insertion of a catheter in the entire length of the artery from the groin to the heart. A dye is injected and the extent of the arterial disease is viewed on a screen.

#### (b) Treatment for chronic stable angina

The presenting risk factors will generally be treated by medication as well as lifestyle intervention, such as exercise and diet, in order to ameliorate the risk of further deterioration in health. Anti-ischaemic drugs improve symptoms and quality of life but do not reduce mortality or the risk of MI (O'Toole & Grech, 2003). Anti-platelet drugs result in less risk of blood clotting and cholesterol lowering drugs reduce risks in patients being treated with drugs only, as well as in those undergoing revascularisation by means of either percutaneous coronary intervention or by-pass surgery (O'Toole & Grech, 2003).

Percutaneous transluminal angioplasty (PTCA) is usually carried out at the same time as an angiogram and involves the insertion of an inflatable balloon or wire stent into the artery that forces back the plaque and opens up the artery. Depending on the severity of the symptoms and the location of the blockage(s) most percutaneous procedures are

undertaken to treat single and double vessel disease (O'Toole & Grech, 2003). Poor symptom control with medication will also warrant PTCA (Grech, 2003b; O'Toole & Grech, 2003).

If the damage in the artery is not amenable to PTCA, then a coronary artery by-pass graft (CABG) will be undertaken. This procedure involves the placement of grafts to by-pass the blocked section of the artery and is usually the treatment option for patients with extensive vessel disease. A blockage to the main trunk of the LCA before it branches into the LAD and the LCx (see Diagram A, Figure 1, section 1.1), is particularly dangerous because of the large portion of heart muscle that depends on this artery for the supply of oxygen. Such a blockage will require immediate by-pass surgery. Simultaneous blockage in all of the origin points of the arteries is equally dangerous and will require immediate by-pass surgery (see Diagram B, Figure 1, section 1.1).

Historically, most grafts were undertaken with veins taken from the legs (venous grafts) but increasingly the left internal mammary artery (arterial graft) is used as this has a greater longevity than the venous graft (O'Toole & Grech, 2003). Arterial grafts provide a life span of up to 10 years as well as increased post-operative survival and reduced long-term symptoms. More recently, the radial artery from the arm has also been used (Dr Willie Koen, cardiac surgeon, lecture to Mended Hearts Group, November, 2003). The median life span of a venous graft is usually seven years. After CABG surgery, only 15% of patients are free of either recurrent angina, MI, or both (O'Toole & Grech, 2003).

### (c) Treatment for unstable angina

The diagnosis of unstable angina usually requires urgent hospitalisation. Bed rest, oxygen, opiate analgesics for pain relief, as well as anti-ischaemic and anti-thrombotic drugs (e.g., aspirin) form part of the initial treatment (Grech & Ramsdale, 2003b). Aggressive modification of risk factors (e.g., cessation of smoking, lowering of cholesterol levels and hypertension management) is vital (Grech & Ramsdale, 2003b). PTCA and CABG procedures may also be carried out.

#### 1.4.2 Myocardial infarction

Some patients with CHD experience MI without any prior build-up of angina pectoris as the first symptomatic indicator of the disease. For these individuals, the lack of prior symptoms as well as the suddenness of such an attack is, in itself, a frightening ordeal. MI usually occurs when a vulnerable plaque ruptures and exposes the underlying tissue (Stefanadis, Vavuranakis & Toutouzas, 2002). This attracts platelets, the accumulation of which triggers coagulation that results in thrombosis. Once the blood clot has formed it may cause a blockage if there is atherosclerotic build-up at the site of injury. The occurrence of MI therefore depends on whether or not the blood clot totally obstructs the flow of oxygenated blood to the heart muscle (Cotran et al., 1989).

The blockage caused by the blood clot in the narrowed artery prevents oxygenated blood from reaching the heart muscle. The heart muscle that has been deprived of oxygen gradually ceases to function and after about six hours becomes necrotic (or dies) (Cotran et al., 1989; Scheidt, 1996). Delay in seeking medical help therefore negatively impacts

on treatment and prognosis. The point of plaque rupture will also determine the extent of heart muscle necrosis. See Figure 1 (section 1.1, Diagram A) for an example of a plaque rupture point that will result in a large amount of heart muscle damage due to the lack of oxygen supply. The accompanying symptoms for MI may include severe chest pain, often radiating to the neck or left arm, dizziness, nausea, blackouts, profuse sweating, shortness of breath and palpitations. Some patients may experience very mild symptoms and it is not unusual to hear a patient ascribe the pain to indigestion. Immediate treatment upon hospitalisation is aimed at re-opening the point of blockage and restoring blood flow. This can be done by the administration of a thrombolytic agent that will dissolve the clot. Primary PTCA (or direct angioplasty), which mechanically disrupts the thrombus and opens the artery, is an alternative treatment option (Grech & Ramsdale, 2003a).

The precipitating factors for MI are similar to those for angina pectoris, being any demand for increased cardiac output including physical, psychological, social and environmental stressors. However, it is still uncertain as to how the increased demand on the cardiovascular system precipitates a plaque rupture. The occurrence of a major life event (e.g., death of a spouse, a change in relationships, excessive work or study load up to six months prior to an MI) has been cited as a possible psychosocial precipitating factor (Byrne, 1983; Glass, 1977; Rahe, Bennett, Romo, Siltanen & Arthur, 1973; Stephanos, 1982; Twisk, Snel, Kemper & Van Mechelen, 1999; Kits van Heijningen & Treurniet, 1966; Zellermyer, 1955; Zhou, Qian & Zhang, 1991). While depression, anxiety and general mood disturbance have for some time been positively correlated with

the onset of MI (Kaufmann, Pasacreto, Cheney & Arcuni, 1985-86; Sibilis, Picozzi & Nardi, 1995; Van Diest, 1992), depression is increasingly emerging as an important precipitating risk factor for CHD (Jiang, Krishnan & O'Connor, 2002). Ongoing medical research pertaining to the increased risk of CHD resulting from the physiological effects of depression includes hypercortisolism that results in the redistribution of body fat (Mayo-Smith et al., 1989), the increased release of noradrenaline (Carney, Freedland, Eisen, Rich & Jaffe, 1995), and platelet aggregation (Musselman et al., 1996).

(a) Investigative procedures after myocardial infarction

The severity of the MI is determined by the amount of necrotic heart muscle, the extent of which is some indicator of where the rupture occurred in the narrowed artery. The length of time that elapses before treatment is received is an indicator of the likelihood of saving viable muscle. Individuals who suffer a major MI with extensive heart muscle damage are at increased risk for re-infarction and death (Timmons, 1984). It is therefore important to identify the extent of the necrotic muscle as a guideline for treatment and rehabilitation. An angiogram is an invasive investigative procedure performed in order to explore the extent of atherosclerosis in the arteries.

There are a number of non-invasive ways of ascertaining the extent of the necrotic muscle. These include (1) blood tests of cardiac enzyme levels. The more enzymes that are present, the more heart muscle has been damaged. (2) Irregularities on an ECG test are a rough guide to the extent of the damaged heart muscle. (3) An echocardiogram (ECHO) measures regional and global left ventricular impairment which, for this test, can

be induced by an intravenous infusion of drugs that increases the heart rate (stress ECHO) and myocardial contraction (Grech, 2003b). For this test, an ultrasound probe is held over the heart to assess muscle movement and damaged areas. There are two different tests. A straight ECHO will show areas that do not move well as a result of the MI and also how well the ventricle as a whole is working. A stress ECHO is used to confirm the diagnosis or severity as the cardiologist can see how the heart muscle reacts to a drug that increases the workload.

(b) Treatment after myocardial infarction

The implementation of early medical intervention can greatly reduce the mortality rate in CHD patients, as well as assist the remaining healthy heart muscle to take over the function of the necrotic heart muscle. The treatment choices and prognosis depend on a number of factors, namely the extent of the atherosclerotic build-up, the point in the artery where the rupture occurred and the severity of the MI. Treatment modes will always include medication and lifestyle interventions such as exercise and diet. Severe triple-vessel disease, severe left main coronary artery stenosis or occluded vessels that are unsuitable for PTCA can be referred for CABG (see Diagram D, Figure 1, section 1.1). There are three different classes of medication. One prevents thrombosis by interfering with the clotting mechanism (e.g., Disprin, Warferin), another treats the risk factors (e.g., serum cholesterol, blood pressure, or diabetes mellitus), and the third treats complications such as heart failure (e.g., beta-blockers or similar drugs which control the heart rate and improve heart function) (Cotran et al., 1989; Scheidt, 1996).

### 1.5 Compliance with cardiac medical and lifestyle interventions

The regimen for most CHD patients requires medication, as well as a number of physical and lifestyle interventions. In order to minimise the risk of re-infarction it is necessary for an individual to comply fully with all aspects of the regimen. In spite of the life-threatening nature of CHD, low compliance rates are reported for medical, physical and lifestyle interventions. Burke et al.'s (1997) survey of the literature on compliance with cardiovascular disease intervention strategies indicates that 16 to 50% of hypertension patients discontinue their medication within the first year of treatment. A relapse rate of 79% in the first six months has been established for smokers, 82% for lipid-lowering agents and 50% for exercise regimens. In addition, 80% of all deaths attributed to CHD occur prematurely and are facilitated by poor compliance with prescribed medicine.

All in all, while a high percentage of CHD individuals may survive the first infarct, re-infarction is likely if compliance with recommended medical and lifestyle changes is poor (Timmons, 1984). For those survivors who do attend some form of cardiac rehabilitation, at least 50% of participants drop out within the first year (Oldridge, 1982; 1984). Compliance with CHD interventions is therefore an area that requires ongoing investigation and improvement. Besides psycho-education concerning risk factors, a number of other psychological factors should be considered to aid compliance and these are dealt with in the next chapter.

## CHAPTER TWO

### Coronary Heart Disease and Psychological Factors

The pathogenicity for CHD is not solely dependent on any one particular risk factor but a combination of factors as they pertain to an individual's particular lifestyle, genetic and biological predispositions, and personality (Carmelli, Dame & Swan, 1992; Donker, 2000). The traditional primary and secondary risk factors outlined in the previous chapter have been established as powerful and consistent predictors of CHD in many countries and with many different population groups (Johnston, 1993). Psychological variables have not achieved this status, although it is evident that they contribute towards these primary and secondary risk factors and negatively impact on health behaviour as well as compliance with CHD medical and lifestyle interventions. These psychological variables are considered in this chapter. In particular, the Type A behaviour pattern (TABP) commonly found in CHD patients, and stress and the stress response, are examined for their role in the maintenance of the risk factors and poor compliance. In addition, because the TABP describes only an aspect of an MI survivor's personality (Booth-Kewley & Friedman, 1987), psychodynamic factors that drive and maintain this behaviour pattern are discussed.

#### 2.1 Stress, coronary heart disease and the Type A behaviour pattern

The physician Heberden (1772) first documented a connection between stress and cardiovascular disease in the late eighteenth century. Some hundred years later the cardiologist William Osler (1897) described the coronary patient as living under high

pressure in order to succeed. Around the early half of the twentieth century, psychiatrists started to hypothesise a link between stress and CHD with Dunbar (1943) being the first to note a competitive pattern in individuals prone to CHD. At about the same time, several psychoanalytic writers observed strong aggressive tendencies (Menninger & Menninger, 1936) and the presence of repression and identification as defences against feelings of failure (Arlow, 1945) in individuals with CHD. Arlow found that coronary patients identified with a strong father figure out of fear more than admiration and that this underlay the need to strive for success.

Quite independent of the psychoanalytic writers, the cardiologists Friedman and Rosenman became increasingly aware of a particular type of behaviour in their CHD patients. They were first alerted to this behaviour by an upholsterer who pointed out that only the front three inches of the chairs in their waiting room were worn down. They subsequently spoke with the patients' spouses and other family members and found that "stress" was consistently named as a common problem for the patients. They continued to observe their patients' behaviour and finally coined the term the "Type A behaviour pattern" (Friedman & Ulmer, 1985). Their attention to the behaviour pattern was a welcome attempt at understanding the surge in heart disease post-World War II. By describing the observable behaviour they made it possible to intervene with CHD patients in a practical way.

## 2.2 The Type A behaviour pattern

(a) An early medical model of the pattern: In contrast to the psychoanalytic formulations, Friedman and Rosenman (1959) first defined the TABP as a medical disorder consisting of a set of overt clinical signs and symptoms that were elicited by situations perceived as challenging by the Type A person. The various signs and symptoms included a number of psychomotor activities such as disturbed vocal tones, abnormal speech rhythms, respiratory dysfunction, grimaces, tics, body movements such as a clenched fist and a tense and hostile face (Friedman & Rosenman, 1959). In response to a challenge, individuals who displayed the pattern sat on the edge of their chairs, talked, walked and ate rapidly, clenched their fists, gritted their teeth and so forth.

The Structured Interview (SI), and later the videotaped SI (VSI) (Friedman & Powell, 1984) was developed as a stress situation that elicited the behaviour pattern in response to 27 general interview questions. The video clinical examination (VCE) evolved in 1986 (Friedman et al.) and consisted of specific, rather than general questions, as did the SI/VSI. These tests noted the voice stylistics and psychomotor mannerisms of the respondent, while the verbal content was only minimally considered. Based on their responses, individuals were classified as extreme Type A (A1), mild Type A (A2), an equal mix of A and B (X), and Type B.

The advantage of rating Type As in terms of psychomotor agitation and observed responses was that it limited the Type A's potential for denial of the presence of the pattern (Jenkins, 1979; Jenkins, Zyzanski & Rosenman, 1979). However, the SI/VSI was

costly and time-consuming to learn and to use, and relied on the perceptions of the interviewer. This created the possibility that the interviewer's style of speech and mannerisms could influence responses (Dembroski et al., 1978). While this predicament was partially rectified with the structured VCE, obtaining training in America poses a logistical problem for researchers abroad. This method of assessing the psychomotor aspects of the TABP has also been criticised for being insensitive and unethical in that it forces a response from individuals (Thoresen & Powell, 1992).

(b) A psychosocial model of the pattern: In contrast to the original formulation of the pattern as a typology of clinical signs and symptoms, the TABP was subsequently conceptualised as a continuum of behaviour. According to this later formulation, the core elements of the TABP are a combination of personality traits such as hard-driving determination for achievement and extremeness of competitiveness that present as a constant display of time urgency and an over-involvement in work. When thwarted in their endeavours to achieve, Type As become hostile and aggressive. Time urgency, haste and impatience with slowness, a fast pace of living, multi-tasking, free-floating hostility, explosive speech and hyper-alertness are some of the overt manifestations of the behaviour pattern (Jenkins, 1979; Jenkins et al., 1979).

The Jenkins Activity Survey (JAS) (see Appendix B) was developed in accordance with this formulation and categorised an individual according to the degree of evident Type A behaviour (Jenkins et al., 1979). It was developed as a standard psychometric procedure in an effort to duplicate the SI and to make the assessment of the pattern accessible to a

wider pool of practitioners and researchers (Jenkins et al., 1979). While the items in the JAS resemble those in the SI, the JAS does not measure heightened sympathetic activity, as does the SI. Instead, the JAS measures the rapid pace of living and achievement-striving aspects of the pattern (Matthews, 1982). Unlike the SI which measures an elicited style of response, the JAS is a self-report questionnaire that measures an individual's perception of his or her behaviour.

The JAS provides four separate scores, although there is a degree of overlap in the questions. The first measures the global Type A construct of the behavioural pattern and the second, Factor S (Speed and Impatience), measures time-urgent behaviour. The third, Factor J (Job Involvement), measures the degree of dedication to occupational activity and the type of occupational setting that is conducive to the emergence of the TABP. The fourth score, Factor H (Hard-Driving and Competitive), measures individuals' perceptions concerning character traits and values associated with the TABP (e.g., hard-driving, conscientious, responsible, serious, competitive and applying more effort than other people (Jenkins et al., 1979). A description of the components that describe aspects of the TABP is presented below.

### 2.2.1 Time urgency

Type As incessantly struggle to achieve more and more objectives in less and less time (Friedman, 1978; Friedman & Powell, 1984). They drive, walk, talk, move and eat in a hurry, usually because they allot insufficient time for tasks. Multi-tasking such as shaving, reading the morning newspaper and eating breakfast, all at the same time, is a

result of the Type A's attempts to achieve as much as possible in as little time as possible. Even when seated, there is a display of motorised behaviour such as foot and finger tapping, fidgeting and playing with an object such as a pencil. The Type A appears vigilant in expression and posture as though on the alert and ready for action. Thought processes are hurried and result in impulsive behaviour. Speech is often accentuated with key words expressed in an explosive manner. Type As not only hurry their own speech but also have a tendency to hurry others, even to the point of completing sentences for them (Friedman & Rosenman, 1974; Friedman & Ulmer, 1985). Type As are therefore so occupied with their own thoughts and ideas that the possibility of listening empathically is minimised (Billings et al., 1996; Ornish et al., 1983, 1990).

Although they may appear alert, Type As are inattentive to detail and make significant task errors (Conte, Schwenneker, Dew & Romano, 2001; Friedman & Rosenman, 1959; Rosenman & Friedman, 1961). They incorrectly estimate the passage of time and are more likely to signify that one minute has passed before it has done so (Yarnold & Grimm, 1982). Type As subscribe to deadline control and become impatient and irritable when tasks are not completed on time (Glass, Snyder & Hollis, 1974). They are concerned with how to fill the passage of time with productive activity and with the greatest efficiency, and become impatient when another person delays the completion of a task (Conte et al., 2001). All these are usually elicited in work environments where productivity is emphasised in terms of heavier workload and a faster work pace.

### 2.2.2 Job involvement

Individuals who display this component of the TABP usually have challenging, high-pressured jobs, work overtime and confront important deadlines (Friedman & Rosenman, 1974; Friedman & Ulmer, 1985). They prefer promotion to a pay increase, but usually have received both in the last few years (Jenkins et al., 1979). These individuals are generally over-involved with their work and all tasks are approached with an inflated sense of responsibility and a perseverance to succeed. They tend to extend themselves and to take work home with them during the week and on weekends. Even when on vacation, it is difficult for Type As to relax and to switch off and they often fill their time with chores and work. Despite all this hard work, Type As do not always achieve job success and satisfaction and are often displeased with their accomplishments (Glass et al., 1974). This sets up a vicious cycle of increased goal setting, job involvement and hard-driving, competitive behaviour (Friedman & Rosenman, 1974; Friedman & Ulmer, 1985).

### 2.2.3 Hard-driving and competitive behaviour

Type As conscientiously approach all tasks with extreme competitiveness and determination to achieve, driving themselves to meet high and sometimes unrealistic standards (Friedman, 1978; Friedman & Powell, 1984). The tasks may differ but the intensity of drive and competitiveness does not. For example, Type As will generally approach a game of cards, even with children, with the same amount of competitiveness and need to win, as they do a task at work. At a cardiac rehabilitation programme, the researcher frequently observed patients timing how much faster they could walk around

the exercise track week after week. For them it was insufficient that they could once again exercise; it had to be competitive in order for it to be meaningful.

#### 2.2.4 Hostility and aggression

Type As have strong tempers and if impeded in their hard-driving behaviour, they become impatient, irritable, hostile and aggressive (Friedman & Rosenman, 1974; Rosenman, 1978; Friedman & Ulmer, 1985). For example, if a slower vehicle obstructs a Type A motorist, an aggressive display of clenched fist, cursing and hooting will most likely be evident. As mentioned above, this aspect of the TABP is measured by the SI/VSI/VCE but not by the JAS.

#### 2.3 Type As and Type Bs

Type Bs generally exhibit some or all of the Type A characteristics, but these are only elicited in appropriate situations. Type Bs are only the opposite of Type As when one is comparing extreme manifestations of the pattern. Compared with Type As, Type Bs pursue their goals and ambitions as healthy achievement striving, are typically non-aggressive in how they compete and are selectively time-urgent. Without the aggressive drive of Type As, they are generally more relaxed, easy-going and patient individuals (Rosenman, 1978). They play for fun and can relax without guilt (Friedman & Rosenman, 1974). Should Type Bs work long hours, they do so without feeling a need to compress events, to multi-task and to relinquish their vacation time (Rosenman, 1978). Visually, Type Bs do not appear as if in a perpetual hurry, nor do they display the facial grimaces, clenched fists, fast speech and constant motorised behaviour of Type As

(Rosenman, 1978). A crucial difference between Type As and Type Bs is that for the former, the indiscriminate and therefore harmful manner in which they use the drive for achievement and success has become habitual and is present even when not required (Friedman & Powell, 1984; Friedman & Rosenman, 1974; Jenkins, 1979; Jenkins, Rosenman & Friedman, 1967; Jenkins et al., 1979; Roskies, 1987).

#### 2.4 The Type A behaviour pattern and modern-day living

It is evident that the TABP typifies aspects of the First-World lifestyle such as a fast pace of living and aggressive competitiveness to achieve. Components of the TABP are common and reinforced in society and are present to a greater or lesser degree in all individuals (Matthews, 1982). However, these have become so absorbed in our modern, Western lifestyles, that the Type A nature of these activities goes unnoticed (Condon, 1987). Lasch (1980) and Van Wyk (2000) suggest that it is difficult for an individual to succeed in Western commerce and industry without exhibiting some form of the behaviour pattern. Although the pattern is prevalent in our world today, its significant presence should be a warning rather than a justification for its acceptance. Of importance for this study is the occurrence of the TABP in CHD patients and how this pattern of behaviour renders these individuals susceptible to ill-health.

#### 2.5 The presence of the Type A behaviour pattern as a predictor of ill-health

The various components that make up the TABP have been found to differentially predict ill-health. Haney et al. (1996) and Smith, Glazer, Ruiz and Gallo (2004) suggest that hostility is a strong predictor of ill-health, while Ramsay, McDermott and Bray (2001)

found that hostility was a relatively unimportant predictor of CHD when compared with anxiety and depression. More recently, the hostile competitiveness and impatience aspect of the TABP has been referred to as the “toxic” component of the pattern (Birks & Roger, (2000). Some researchers proposed that a combination of time-urgent behaviour and hostility would be predictive of CHD and not hostility by itself (Friedman & Ghandour, 1993; Friedman, Fleischmann & Price, 1996).

Hart’s (1997) summary of the research using the JAS found that time urgency was uniquely predictive of illness incidence, severity (Suls & Marco, 1990), and physiological reactivity (Ohman, Nordby & Svebak, 1989). It was also strongly related to somatic symptoms (Edwards & Baglioni, 1991). These studies also suggest that time urgency is the factor that most strongly predicts ill-health (Booth-Kewley & Friedman, 1987; Conte et al., 2001) because of how the time-urgent behaviour results in the physical stress response and, over a period of time, places the individual in jeopardy of exacerbating potential cardiac disease risk (Bracke & Thoresen, 1996). The constant excitation of the stress response has been found to result in general ill-health (Kvetnansky, 1992; Suls & Marco, 1990), as well as hypertension, thrombosis formation, angina pectoris, arrhythmias, MI (Everly, 1989; Glass, 1977; Jenkins, 1971; Nestel, Verhese & Lovell, 1967; Rosenman & Friedman, 1971; Russek, 1965; Wolf, 1967) and organ failure (Everly, 1989). It is this link between the TABP and the stress response that predisposes individuals to CHD. Individuals especially at risk are males of all ages, females over 40, individuals with a familial history of the disease and the presence of primary and secondary risk factors (Cotran et al., 1989).

Contributing to the discrepancies in these findings is the differential use of the SI/VSI and the JAS. Although the SI and the JAS are purported to measure the same construct (i.e., the TABP) (Jenkins et al., 1979), Friedman and others continue to regard the SI/VSI as the only reliable predictor for identifying those individuals who will eventually develop CHD (Friedman & Powell, 1984; Friedman et al., 1996). This is because the SI/VSI measures the voice stylistics and psychomotor agitation of individuals being assessed and also elicits the specific symptoms of the behaviour (i.e., time urgency and free-floating hostility). The prediction of ill-health based on the presence of the Type A profile is of lesser significance for this study as the participants were already CHD sufferers. However, the identification, measurement and follow-up measurement of an individual's Type A profile is valuable for assessing areas that require modification and for monitoring changes to the profile as a result of an intervention.

#### 2.6 The Type A behaviour pattern in coronary heart disease patients

Since the inception of the TABP concept, a large body of supportive data drawn from predictive studies conducted in the sixties, as well as ongoing research, has indicated that a high percentage of MI survivors under the age of 60 are Type As (Friedman & Ghandour, 1993). Further evidence for the presence of the TABP among CHD individuals was gained from a comparison of Type As with Type Bs in respect of physiological responses to stress and how certain of the primary risk factors for CHD are more extreme in Type As than in Type Bs. These findings are discussed below.

### 2.6.1 Predictive studies

The Western Collaborative Group Study (WCGS) (Rosenman et al., 1964, 1966) is the most comprehensive predictive study of the TABP in CHD patients. In this prospective epidemiological study, 3 154 men aged 39 to 59 years were monitored for the development of CHD over a period of 8,5 years. There were 2 249 (71,3%) individuals in the 39- to 49-year age bracket and 905 (28,7%) in the 50- to 59-year age group. This study used the SI to assess the TABP and a polygraph test to monitor the responses to the interview. These tests indicated that 1 589 subjects exhibited the Type A pattern, while 1 565 were assessed as Type Bs. The researchers hypothesised that Type As rather than Type Bs would be more likely to develop CHD. The study also tested a number of physiological factors in addition to the presence of the behavioural pattern. These included blood lipids, blood coagulation, blood pressure, body measurements, history of illness, medication and parental longevity and illness. Socio-economic factors such as education, income, marital status, occupation and responsibilities were considered as well as individual habits (e.g., physical activity at work, exercise, smoking, alcohol and diet) (Rosenman et al., 1964, 1966).

The results at 8,5-year follow-up were described by Rosenman et al. (1975) as follows. CHD had developed in 257 subjects (178 Type As and 79 Type Bs) and death had occurred in 140 subjects. Of these deaths, 31 were due to a sudden MI, 19 due to a recurring MI and 90 due to non-CHD causes. In all incidences, those participants judged to be Type A at the beginning of the study experienced significantly ( $P < ,0001$ ) more incidences of CHD than did Type Bs. The incidences of recurrent or fatal coronary

events were also higher for the Type As than the Type Bs. A total of 2 391 participants did not manifest with CHD. Of these, 1 129 were Type As and 1 262 were Type Bs. Therefore, of the 1 589 individuals classified as Type A, only 178, or 11% developed CHD, while 89% of these did not. Therefore, a large number of subjects with the Type A pattern did not develop CHD within the 8,5-year follow-up. In addition, a number of Type Bs also developed CHD. Ragland and Brand (1988) conducted a 22-year follow-up of the original WCGS participants and found that the TABP failed to predict cardiac mortality over the two decades.

Blood pressure, smoking, diabetes and other CHD risk factors did not account for significant differences between Type As and Type Bs. Although multivariate regression analyses of the risk factors assessed in the study indicated that TABP accounted for the second highest proportion of the variance after serum cholesterol for CHD (Brand, 1978; Zyzanski, 1978), these results have not been convincingly replicated (Booth-Kewley & Friedman, 1987; Johnston, 1993; Matthews, 1988). It is now considered that a combination of risk factors has an interactive-cumulative effect upon the total risk for CHD (Carmelli et al., 1991; Donker, 2000; Dutch Heart Foundation, 1995; Perkins, 1989). That is, the cumulative effect contributes more than separate risk factors alone.

#### 2.6.2 Differential stress response and stress management in Type As and Type Bs

Type As and Type Bs have been measured for how they respond differently to stress and how they elicit the stress response. A number of aspects of stress and the stress response are of importance for CHD, particularly the central task of the cardiovascular system in

the stress response and how this renders the system vulnerable to illness. Type As and Type Bs were also found to differ in respect of the evaluation of stressors (real or imagined) that trigger the stress response and in terms of the various hormones that are released to mobilise the body for action. These are dealt with in turn.

(a) Differential reactions to stressors

The stress response is an innate physical and psychological reaction that prepares an individual for fight or flight in response to a stressor (Cannon, 1934; Everly, 1989). A stressor is any condition or situation in the environment appraised by an individual as threatening (primary appraisal) and which, according to the person's judgement of how he or she will be able to cope with the situation (secondary appraisal), pushes him or her beyond a level of tolerance and an ability to cope (Sutherland & Cooper, 1990). Stressors include minor events (such as the problems of daily living, difficulties at work, environmental factors like noise and cramped urban living), as well as major life events (e.g., death of a spouse or significant other, divorce, relationship issues, translocations and major changes in lifestyle and responsibilities (Everly, 1989; Holmes & Rahe, 1967). Major life events have been found to be a common precipitating factor for MI (see section 1.4.2) (Byrne, 1983; Glass, 1977; Kits van Heijningen & Treurniet, 1966; Rahe et al., 1973; Stephanos, 1982; Twisk et al., 1999; Zeller-mayer, 1955; Zhou et al., 1991).

Primary and secondary appraisal are therefore vital determinants for the stress response. Type As generally view demands from the environment as challenging, a perception that is governed by the hard-driving and competitive component of the pattern (Friedman &

Rosenman, 1974; Glass, 1977; Jenkins, 1979). This in turn increases time urgency and job involvement. If Type As are thwarted in their endeavours to achieve, they become hostile and aggressive. Type As are therefore more likely to react to stressors in a way that elicits the stress response. The various physiological tests reported next confirm this.

(b) Differential hormones released when under stress

The physiological response is set in motion once a stressor has been evaluated as threatening. The catecholamines adrenaline (associated with anxiety-provoking stressors) and noradrenaline (aggressive-provoking stressors), along with lipids (plasma free fatty acids, triglycerides, cholesterol and endogenous opioids), and the steroid hormone cortisol, are secreted by the adrenal glands and result in increased activity in the sympathetic nervous system (Everly, 1989). For example, the eyes dilate, the vessels constrict, and blood pressure and heart rate increase, resulting in sweating. This equates with the alarm phase of Selye's (1956) model of the "general adaptation syndrome" (GAS). In this elevated state of physiological arousal, the body is geared for physical action, the body's innate form of relieving the stress response. The results from studies that compared Type As and Type Bs in terms of the stress response indicated that Type As have higher levels of noradrenaline, as well as higher heart rate and blood pressure measurements, when faced with a competitive situation (Friedman, Byers, Diamant & Rosenman, 1975). Hostility and aggression are emotions that are evident when Type As are frustrated, and these may be more prevalent because of the increased presence of noradrenaline in Type As during the stress response.

(c) Differential rates of blood clotting and serum cholesterol levels

The catecholamines adrenaline and noradrenaline released during the stress response have been found to facilitate the aggregation of blood platelets and this then leads to thrombosis (Friedman, Rosenman & Carroll, 1958; Markovitz, Matthews, Kiss & Smitherman, 1996). These catecholamines also raise cholesterol and blood pressure levels in preparation for the stress response and therefore heighten the risk of CHD in individuals with a history of unmodifiable and modifiable risk factors. In their earliest research, Rosenman and Friedman (1961) found that when compared with Type Bs, Type As presented with hypertension more often and with higher levels of serum cholesterol. These results were not confirmed in the WCGS (Rosenman et al., 1964, 1966), where such risk factors did not account for significant differences between Type As and Type Bs.

Friedman et al. (1958) found increased rates of blood clotting and higher serum cholesterol levels in coronary-prone accountants (individuals who were designated as Type A, but who had not yet developed CHD) tested during times of high stress when compared with times of low stress. Friedman et al. (1975) established that, under competitive conditions, the plasma noradrenaline concentration of coronary-prone individuals rose an average of 30% compared to that of non-coronary-prone individuals, which remained unchanged. For individuals with CHD, the excitation of the stress response escalates the risk of MI. For coronary-prone individuals the risk of developing CHD is increased.

(d) A comparison of smoking habits

Friedman et al. (1975) compared Type As and Type Bs with regard to smoking habits and established that while both Type As and Type Bs tended to smoke cigarettes, Type As smoked more cigarettes per day. Smoking not only damages the arteries, as presented in section 1.3.2, but also triggers the stress response. That is, smoking, along with other everyday biogenic composites such as chocolate and coffee, possesses some electrical or biochemical properties that bypass the cognitive process and immediately elicit the stress response (Everly, 1989). Supposedly used as a stress relief, smoking therefore worsens the situation, as the unnecessary excitation of the stress response is inevitable.

(e) The physical and psychological consequences of stress

The cardiovascular system is considered to be the prime target for the stress response because of its central role in meeting the body's increased demand for output when under stress (Everly, 1989). Without immediate physical relief from the stress response, enormous strain is placed on the system resulting in a sense of lethargy and tiredness (the resistance stage of Selye's model). Some individuals may experience this exhaustion as emotional (e.g., depression, hopelessness, feelings of low personal accomplishment), mental (e.g., poor concentration or negativity in all aspects of their lives), or physical (e.g., headaches, nausea, burnout, disturbed sleep, eating patterns or weight gain) (Maslach & Jackson, 1981). Psychological disorders that have been linked with stress include post-traumatic stress disorder, adjustment disorders, various anxiety and affective

disorders, brief reactive psychosis and some forms of schizophrenia (Everly, 1989; Kaplan & Sadock, 1998).

Continual levels of excitation over an extended period of time result in over-stimulation and exhaustion of the organs involved in preparing the body for the stress response (Selye's third stage). Eventually this renders these organs susceptible to disorders of the gastrointestinal, cardiovascular, respiratory, muscular-skeletal, skin and immune systems (Everly, 1989; Kvetnansky, 1992). Individuals with a predisposition to CHD are therefore at increased risk of hypertension, thrombosis formation, angina pectoris, arrhythmias and sudden death because of the possibility of lethal arrhythmia or myocardial infarction during the state of excitation of the stress response (Everly, 1989; Glass, 1977; Jenkins, 1971; Nestel et al., 1967; Rosenman & Friedman, 1971; Russek, 1965; Wolf, 1967).

Besides CHD, studies have linked the TABP with other non-cardiovascular conditions such as allergies, mononucleosis, stomach disorders and head colds (Suls & Marco, 1990). Since the early nineties the TABP has also been posited as a risk factor in strokes (Kim et al., 1998), and has been linked with burnout (Lavanco, 1997) and duodenal ulcers (Thankachan & Mishra, 1996). These studies support the link between stress, disease and the TABP, and indicate that in addition to CHD, the TABP predisposes individuals to a number of other illnesses.

While the pattern itself has links with ill-health (Everly, 1989; Markovitz et al., 1996; Rosenman & Friedman, 1961), the primary and secondary risk factors for CHD also become part of the individual's coping strategy. For example, smoking becomes a way of dealing with frustration, anger, depression or any situation or feeling that the individual cannot tolerate or manage. The drive for achievement and success has a ripple effect on job involvement, long hours at the office and insufficient time or energy for exercise, healthy eating and so on. Despite the fact that aspects of the TABP may be lauded in modern society, the negative implications of the pattern in terms of potential ill-health cannot be ignored.

### 2.7 The psychological and psychosocial consequences of the Type A behaviour pattern

Despite constant hard-driving and competitive behaviour, Type As do not always achieve the status they strive for. Although they feel energised and motivated in the course of working on a challenge, they do not experience the satisfaction of success. In effect, before one goal is achieved, the next is in sight. The pattern also creates its own problems as the time urgency and hard-driving and competitive components of the TABP add stress to the individual's way of being in the world. The time-urgent component in particular results in the stress response as discussed above (Bracke & Thoresen, 1996), as well as chronic impatience, restlessness and agitation (Friedman & Rosenman, 1974). Additional consequences of the TABP include sleep disturbance, obsessive punctuality or lateness, chronic feelings of time pressure, feeling overburdened or overwhelmed, relationship difficulties and a lack of close friends (Ulmer & Schwartzburd, 1996). The hostility that arises as a result of frustration when Type As are thwarted in their efforts to

achieve is most likely to prevent upward mobility at work and to add stress and strain to personal relationships and quality of life. The behaviour pattern does not therefore leave the individual feeling fulfilled and satisfied with life.

In spite of the negative consequences of the TABP, even when Type As are made aware of the pattern and its negative effects, they are resistant to change (Jenkins et al., 1979; Roskies, 1987). This resistance remains entrenched even after the life-threatening experience of an MI. Some studies (Catipovic-Veselica, Glavas, Kristek & Sram, 2001; Cohen, Ardjoen & Sewpersad, 1997) hypothesised that the TABP is beneficial for the prevention of re-infarction because Type As use the pattern positively to address the rehabilitation recommendations. The clinical experience of the researcher is that Type As frequently approach rehabilitation after a coronary with the same level of intensity and competitiveness with which they have addressed other challenges in their lives. However, although they use the competitive drive component of the TABP to rehabilitate, they do so in a way that is self-defeating and sometimes dangerous to their health, as they generally tend to over-exercise. In addition, the poor compliance rates reported in section 1.5 attest to the reality that Type As generally do not use the pattern in a way that is beneficial for rehabilitation. An understanding of the psychodynamics of the pattern reveals why the pattern is so entrenched in spite of its negative consequences.

## 2.8 Psychodynamic formulations of the Type A behaviour pattern

There is much observed variation in degree and intensity of the observed behaviour differences among Type As concerning time urgency, hostility and impatience, as well as how the pattern is acquired and maintained (Bracke & Thoresen, 1996; Booth-Kewley &

Friedman, 1987; Hart, 1997; Johnston, 1993; Matthews, 1982; Price, 1982; Riska, 2000). Some individuals are blatantly hostile, while others present primarily with anxiety and depressive symptoms (Bracke & Thoresen, 1996). These differences can be best understood in the context of psychodynamic formulations of the pattern.

(a) A coping mechanism for exerting control over environmental demands

The first hypothesis advocates that the TABP is a coping mechanism for exerting control over environmental demands (Friedman & Rosenman, 1974; Glass, 1977; Jenkins, 1979). An experience of external locus of control (“I am controlled by situational factors”), as opposed to internal locus of control (i.e., “I am in charge”) (Rotter, 1982), is indicated. Kirkcaldy, Cooper and Furnham (1999) found that Type As respond with frustration, hostility, competitiveness, dominance and unhappiness to a feeling of external locus of control. When faced with such a situation Type As typically become hard-driving and competitive. Instead of decreasing their stress levels and affording some relief in terms of how they manage environmental demands, Type As exacerbate the situation by attempting to achieve more.

A feeling that one is controlled by external circumstances as well as an inability to cope with situations that are perceived as uncontrollable negatively impacts on an individual’s experience of self-efficacy or beliefs about personal abilities in a specific situation (Bandura, 1977). An inability to gain control over environmental demands therefore becomes an additional source of internal or psychological pressure for Type As and the need for the pattern is intensified. This hypothesis explains a coping mechanism in

which Type As are indeed attempting to gain control over environmental demands, but it minimally explains the deeper dynamics of why Type As increasingly succumb to environmental pressure.

(b) A compensation for low self-esteem and insecurity

A second hypothesis is that the TABP is a pattern that has developed as a way of compensating for underlying feelings of low self-esteem and insecurity (Bracke & Thoresen, 1996; Friedman & Ulmer, 1985; Jenkins, 1979; Price, 1982; Price, Friedman, Ghandour & Fleischmann, 1995). This hypothesis suggests that Type As attempt to gain control over their internal worlds by controlling their behaviour in the external world. It therefore takes the first hypothesis to a deeper level.

A belief that self-worth is obtained by success and quantity of tasks and an evaluation of self in terms of achievement is part of a compensatory system established by Type As (Friedman & Powell, 1984; Price et al., 1995). As a result, an apparent greed to acquire an unrealistic number of responsibilities, material possessions, or symbols of self-achievement is evident. Type As become so dedicated in their drive to compensate for low self-esteem that all their energies are channelled into this goal. It is therefore not surprising that Type As are most often described as egocentric, self-preoccupied, self-involved (Scherwitz, Graham, Grandits, Buehler & Billings, 1986) and narcissistic (Bracke & Thoresen, 1996; Chessick, 1987; Condon, 1987). Should the compensatory behaviour fail, as for example when Type As are unsuccessful in their accomplishments, then negative feelings, such as anxiety, depression and anger, connected with beliefs

about the self as unworthy and inadequate, surface and the pattern is intensified in an attempt to ward off these negative feelings (Bracke & Thoresen, 1996; Friedman & Ulmer, 1985; Price et al., 1995; Ulmer & Schwartzburd, 1996). Therefore, in addition to the inherent external pressure from society to succeed and achieve, Type As are driven to maintain a psychological equilibrium in order to avoid feelings of low self-esteem and insecurity from surfacing.

As noted by several authors (Bracke & Thoresen, 1996; Price et al., 1995), Type As are subjectively unaware of their behaviour and lack insight into the dynamics and compensatory nature of the pattern. In terms of expression of feelings, Billings et al. (1996) suggest that CHD patients are more prone to express "big muscle" emotions such as anger, frustration or impatience as opposed to sensitive or tender feelings. In doing so, sensitive or tender feelings are minimised and discarded as irrelevant and uninteresting. It is therefore not surprising that CHD patients tend to think, solve and then move on from an issue, an emotion or an experience (Billings et al., 1996). As a result, the behaviour pattern becomes a mindless attempt to please, to impress and to numb feelings. Billings et al. (1996) ascribe this to a possible lack of awareness of subtle feelings as well as to a belief that revealing tender feelings may result in a sense of vulnerability or inadequacy.

While this second psychodynamic formulation explains an important motivating factor for the development of the TABP as a need to compensate for low self-esteem and insecurity, it does not account for the origins of the low self-esteem and insecurity. Nor

does it explain why, other than a lack of skill, these individuals cannot identify and express their feelings. The following formulation addresses this lacuna.

(c) A social learning model: The impact of the family

Price (1982) proposed a social learning model of how a child is exposed, already at a very young age, to Type A beliefs and behaviours through direct experience, instruction and social modelling in the family environment. Price (1982) does not directly address the earliest experiences accumulated in the mother-infant relationship, although she alludes to it when she refers to the child's physical and emotional dependence on his or her caretaker. She focuses her formulation on the formative years of the young child and suggests that parents who severely criticise a child and who emphasise the outcome, rather than the process of such efforts, are modelling the need for achievement and success, one of the components of the TABP. In addition, a child who is exposed to unloving, unresponsive or very unpredictable parenting will develop a sense of anticipation and dread of failure in the family environment. One means of avoiding such negative feedback about one's self as lacking in worth is to strive continually for success. Eventually a need to prove oneself and a belief that self-esteem is measured by accomplishments becomes part of an individual's belief structure. Beliefs about success and achievement and the accompanying behaviours as indicators of self-worth are later reinforced through expectations at school, college, university, work and the social environment.

(d) A relational model perspective: The mother-child relationship

From a relational model perspective, the foundation for feelings of insecurity and low self-esteem that are at the core of the TABP is hypothesised to commence far earlier than just the formative years, per Price's social learning model. According to a relational model perspective, one's earliest experience of being in the world, commencing with the nature of the mother-infant (or earliest caretaker-infant) dyad, is vital for facilitating the infant's emotional growth and development (Greenberg & Mitchell, 1983). The nature of these earliest relational configurations therefore forms not only the bedrock for future relational constellations with others and with the self, but also affects how individuals tolerate, identify, express and manage their emotions (Greenberg & Mitchell, 1983). In the absence of a satisfactory fit between mother and infant, the nascent self may fail to develop optimally and become over-reliant on psychological defences to deal with negative emotions and difficult life experiences.

(i) An optimal developmental trajectory

A new-born infant is utterly dependent upon his or her mother or primary caregiver for survival (Bowlby, 1969; Winnicott, 1986). In the earliest moments of the mother-infant relationship, the symbiotic union of mother and infant (Winnicott, 1952b) facilitates the infant's instinctive attachment behaviour (Bowlby, 1969) and the mother's ability to be in tune with her infant. Winnicott (1956) refers to the mother's frame of mind in this early stage as *primary maternal preoccupation* (Winnicott, 1956). At this time, the normally healthy mother withdraws into a dissociated, fugue-like state in which she is merged with

her infant a few weeks prior to, and immediately after, the birth. This enables the mother to be in touch with her infant's needs and enhances the likelihood of her being a *good-enough mother* (Winnicott, 1971). Assisted by her state of primary maternal preoccupation, the good-enough mother is in tune with her infant's needs and gestures and meets these with an exactness of adaptation. This means that, in the very beginning, the tending by the mother needs to be as closely matched to the infant's needs as possible. As the infant's ability to tolerate frustration increases, she or he can endure less exactness of adaptation. Of importance is the mother's ability to move out of the state of primary maternal preoccupation so that she can have empathy for her infant's needs rather than to stay merged with him or her.

In the infant's earliest experience "there is no such thing as a baby", only an infant and its mother" (Winnicott, 1952a, p. 99). The mother is the environment for the infant and she functions as a mirror that reflects the infant's gestures and experiences. This is a profound function, for without the mirror the infant cannot experience him or herself as existing (Kohut, 1966, 1972; Winnicott, 1971). As the new mother comes to know and understand her infant's cries, she learns to respond appropriately. In a healthy dialectic between mother and infant, the mother continually makes sense of and gives meaning to her baby's communications about its physical and emotional needs (Bion, 1959).

The good-enough mother's empathic attunement to and appropriate mirroring of her child's physical and emotional needs facilitate the development of an integrated sense of self, a process which is enhanced by the ongoing practice of the naming of feelings and the transformation of these into meaning for her growing child (Bion, 1959; Winnicott, 1956). The good-enough mother (Winnicott, 1971) or Mahler's *ordinary devoted mother* (Mahler, Pine & Bergman, 1975) therefore provides a *facilitating* (Winnicott, 1971), or an *average expectable* (Hartmann, 1958) environment for the infant's emotional and physical development. The role of the mother, in helping her child to negotiate an optimal emotional developmental trajectory, as well as a supportive father or partner who enables the mother to carry out this role, is important for establishing a foundation for a healthy sense of self (Winnicott, 1945). Containment by first the mother and then also the father is an ongoing process and is not merely of the earliest pre-verbal experiences. It is a continual holding and attunement throughout the child's developing years.

A mother who meets the gestures and experiences of her infant and who repeatedly makes sense of them enables the infant to develop into an individual with a secure sense of self that is worthy and valued. Part of attaining psychological maturity is to learn to evaluate one's potentialities, to accept one's limitations and to achieve a substantial correspondence between how one wishes to be (an ideal shape of the self) and the actual state of the real self (Reich, 1960). Those who have attained this milestone are characterised by a sense of themselves

as integrated, separate, valued individuals with the capacity to engage in mutually fulfilling relationships. Such persons are able to tolerate and manage their emotions and to experience challenges to their sense of self without resorting to excessive defensiveness. They may even use challenging occasions as opportunities for personal growth. Although this position reflects the ideal and desired trajectory of psychological development, this is not always attained.

(ii) A less than optimal developmental trajectory

The quality of care in the facilitating environment not only impacts on the development of the infant's sense of self, but also on his or her ability to tolerate feelings (Winnicott, 1945). The mother who does not meet the gestures and experiences of her infant, and who substitutes the infant's gestures with her own, fails her infant in the mirroring process (Klein, 1952; Winnicott, 1960). A lack of maternal attunement and mirroring is overwhelming and frightening for the infant and the eventual impact of this is a sense of self that is fragile, vulnerable and wounded. A lack in the earliest experience lays a blueprint for future relationships and attitudes. Without a good-enough maternal experience, the infant also struggles to understand and manage his or her feelings and will experience painful emotions as intolerable and overwhelming (Bion, 1959; Klein, 1952; Winnicott, 1945). Failure to receive such good-enough mothering contributes towards a poor sense of self-worth and an inability to tolerate, identify, express and transform feelings (particularly negative ones) and experiences into meaning (Bion, 1959; Winnicott, 1945). An inability to manage

emotions provides a negative feedback loop that exacerbates the low self-esteem that originates in childhood and continues throughout the person's life. This differs from an inability to identify and express emotions, although they are linked, as an inability to tolerate emotions negatively impacts on an individual's ability to make sense of and to communicate about his or her feelings and experiences. As a result such individuals will struggle to use their emotions as feedback about reactions to events in the world (Greenberg & Pascual-Leone, 1997).

To deal with difficult emotions and experiences, narcissistic defences such as denial, splitting (i.e., of the emotion from the experience, as well as splitting off of aspects of the developing self), projective identification and omnipotence are employed (Kaplan & Sadock, 1998; Klein, 1952). These defences are called narcissistic because they are instituted at a time of emotional development when the infant does not see him or herself as separate from the mother (Klein, 1952; Winnicott, 1945). Generally, the term narcissism refers to some aspect of concern with the self (Cooper, 1986). Specifically, Kohut (1966) defines narcissism as part of a normal developmental line. Individuals who receive inappropriate mirroring from the mother will continue to seek out opportunities to receive this positive mirroring throughout their lives. For Mahler et al. (1975), narcissism is a defence against subjective feelings of helplessness because the infant has not successfully negotiated the separation-individuation task of the rapprochement phase. In this phase, the infant's recognition of separateness from the mother is

coupled with an awareness that she or he still needs the parent. This results in feelings of vulnerability. The infant grapples with this vulnerability by reunion with the mother, interspersed with attempts at separateness, with which its confidence to separate grows. A child who has not progressed through this phase will experience ongoing separation-anxiety.

(e) The development of a compensatory pattern

The relational model provides a theory for how the earliest self and other relational constellations are formed, as well as how the mother-infant relationship dictates the extent to which an individual may learn to tolerate or manage his or her emotions. It is hypothesised that in the absence of a satisfactory fit between mother and infant, the nascent self may fail to develop optimally. Depending in part on the child's constitutional make-up (e.g., temperament), such a child may be particularly vulnerable to family and social milieu feedback or criticism. Price's social learning model proposes a particular type of family environment that predisposes a young child to adopting Type A behaviours as a means of gaining approval and dealing with developing feelings of low self-esteem and insecurity. These behaviours, learnt in the formative years, are simply reinforced in the greater society where achievement and success are emphasised.

In adulthood, as in childhood, the function of any psychological defence is to ward off negative feelings and to maintain a level of stability and positive affective colouring of an individual's self-perception. The more tenuous the sense of self, the more likely the person is to perceive the world as threatening and people as critical, and to experience

these kinds of feelings more frequently and intensely. While all individuals have degrees of insecurities and low self-esteem, for some this experience of the self is only situation-specific, and often appropriately so. For others this experience of the self as tenuous may be triggered at random and may become so encompassing that everyday life is difficult. Individuals therefore vary in terms of severity of insecurity and low self-esteem. They also vary in terms of how they tolerate and manage the feelings that arise from the sense of self as inadequate or lacking in worth. These may include feelings of failure and inferiority (Morrison, 1986; Reich, 1960), shame, guilt (Morrison, 1986) and anxiety (Bracke & Thoresen, 1996; Friedman & Ulmer, 1985; Price et al., 1995). At all costs, these affective experiences need to be managed by the individual and the sense of self protected, maintained, restored, repaired and stabilised when it is threatened or significantly lowered (Morrison, 1986; Pulver, 1970; Stolorow, 1986).

As a result of life's challenges, the need for concern with the self is constantly brought into play. This may be in the form of concentration of psychological interest upon the self, in manifested attitudes towards the self, or even in the regulation of self-esteem and well-being (Joffe & Sandler, 1987). Various authors (Cooper, 1986; Duruz, 1981; Lasch, 1980; Millon, 1998; Stone, 1998) suggest that the presence of narcissistic traits is normal and healthy in people who have a mature, reality-based sense of self. Thus, it is not the presence of narcissism *per se* that is considered problematic, but rather the extent to which the individual relies on an over-investment in the self to function.

For individuals with a fragile sense of self, the drive to succeed and to fit in with societal norms is increasingly motivated by a need to protect the sense of self and to compensate for low self-esteem and negative feelings related to this experience of the self. Eventually, beliefs about entitlement also become part of the person's frame of reference and manifest as an attitude that one should have whatever one wants, regardless of what others consider reasonable or the cost to others (Young, 1998). Individuals with this belief feel that they are entitled to be exploitative and control the behaviour of others by keeping them in line with their own needs and desires. Bracke and Thoresen (1996) link a sense of entitlement and the Type A's hostility with a hypersensitivity to disapproval, an exaggerated need for control and an excessive sense of entitlement. Type As also believe that they can do and say whatever they want without repercussion. This includes their relationship with themselves and their bodies. The body is treated like a machine that must simply keep up with their demands (Chessick, 1987), in spite of signs of stress and ill-health. High expectations of the self and of others preclude an ability to accept human frailty and to forgive transgressions that disappoint (Kaplan, 1992).

Beliefs about entitlement are reinforced in a modern Western culture where acknowledgement and acceptance require a personality style that strives for achievement in terms of personal gratification and self-enhancement (Duru, 1981; Lasch, 1980; Millon, 1998; Stone, 1998). Such a society inculcates a belief that failure will result in rejection (Price, 1982). As a result, the need to be successful becomes a goal that is striven for, often at the expense of social, community and relationship factors, a loss of which can add to imminent alienation in a fast-paced, modern world.

Thus, for someone with a tenuous sense of self, the dynamic tension between the internal and the external worlds reinforces and intensifies the need for a compensatory behavioural pattern. For Type As, the TABP has developed as a stable compensatory pattern of defending against feelings and experiences that are a potential threat to the sense of self. While many individuals in society manifest with components of a compensatory mechanism such as the TABP, an individual with a genetic predisposition to CHD and who presents with the primary and secondary risk factors for the disease, (i.e., the coronary-prone individual), is most likely to experience an MI.

The compensatory pattern helps such an individual to cope with life and to manage the intolerable underlying feelings that arise from a belief about the self as lacking worth. Because these individuals are subjectively unaware of their behaviour and lack insight into its dynamics and compensatory nature (Bracke & Thoresen, 1996; Price et al., 1995), they are partly successful in denying their feelings. Such individuals also become increasingly unperturbed about how they treat their bodies, taking little cognisance of possible consequences of bad habits such as smoking, bad eating and lack of exercise. At such times the pattern is effective. When the compensatory pattern fails to the point that intensification of the pattern is impossible, as may occur when the Type A has an MI, then this is not necessarily because the pattern itself fails, but because the origins of the low self-esteem and insecurity and the accompanying feelings that arise as a result of the life-threatening experience, can no longer be compensated for and must be addressed at their roots.

At present there is no literature in which this level of developmental analysis is examined in relation to MI patients and one of the goals of this thesis is to open up this territory for exploration. This level of analysis addresses the root of the low self-esteem and insecurity that drives and maintains the TABP. It also explains, in part, why these individuals struggle to tolerate and manage emotions and experiences.

### 2.9 The psychological impact of myocardial infarction

For individuals so precariously balanced in terms of self and who struggle to manage their emotions on a daily basis, a heart attack is the final blow that bursts their bubble of a seemingly self-sufficient and impregnable existence. Not surprisingly, some MI survivors experience an MI as an attack on their physical and emotional integrity (Singer, 1987). MI survivors invariably have some psychological reaction to the first signs and symptoms of the onset of an MI such as pain or shortness of breath, and so on. Some deny the experience while others become completely overwhelmed and feel helpless (Goldbeck, 1997), a feeling that is unfamiliar and frightening. This feeling of helplessness in itself negatively affects their decision to go for help (Hackett & Cassen, 1975).

After the life-threatening and terrifying experience of the heart attack itself (Ice, 1985), MI survivors have to deal with their reactions to the experience itself, as well as with the knowledge that they have to change their lifestyles and aspects of their personality. Some react by simply over-compensating and set out to push themselves harder. This is visible in obsessive attention to eating habits and exercise (clinical experience of the

researcher). Denial is prevalent amongst MI survivors (Berg-Larsen, 1970; Goldbeck, 1997; Kaufmann et al., 1985-86; Sobel, 1969; Soloff, 1977-78) and the term has been applied to patients who: do not accept their diagnosis, or appear oblivious to it; minimise the implications of their illness; delay seeking medical advice; refuse or comply poorly with treatment; or appear unperturbed and detached in the face of their illness (Goldbeck, 1997). Denial is considered adaptive during the acute phase of hospital recovery but maladaptive after discharge (Imboden, 1972; Janne, Reynaert & Cassiers, 1990; Kavanagh, 1984; Levine et al., 1987), especially when the patient denies even having experienced an MI (Havik & Maeland, 1986). The researcher's clinical experience indicates that denial is less likely to remain entrenched if these emotions are identified before the physical aspects (such as exercise and diet) of the rehabilitation commence.

For those individuals who do not employ denial as a means of coping, overwhelming feelings of nervousness (Wiklund, 1984), irritability (Deems, Duyvis, Beunderman & Lie, 1984; Pleszewski, 1978), depression (Berg-Larsen, 1970; Brown & Munford, 1983-84; Deems et al., 1984; Jiang et al., 2002; Kaufmann et al., 1985-86; Pleszewski, 1978; Rafanelli et al., 2003; Ruo et al., 2003; Stuart & Cole, 1996) and anxiety (Berg-Larsen, 1970; Kaufmann et al., 1985-86; Wiklund, 1984) may surface. These feelings all impact on the MI survivor's relationships with family members (Singer, 1987). In addition, a decrease in sexual activity, sometimes as a result of the prescribed medication, sometimes because of depression, also adds strain to personal relationships (Deems et al., 1984; Shanfield, 1990).

It is recognised that while the above psychological factors are most commonly experienced post-infarct, they may well have been present prior to the MI. MI has also been found to reactivate unresolved conflicts regarding personal inadequacy (Viswanathan & Vizner, 1984) and to exacerbate pre-morbid personality patterns (Kaufmann et al., 1985-86). The presence of low self-esteem (Bracke & Thoresen, 1996), insecurity (Martin & Lee, 1992) and even personality changes (Dongier, 1974) commonly found post-MI is inevitable when the compensatory pattern fails. The presence of the range of emotional reactions negatively impacts on motivation and ability to change health behaviour for some individuals (Viinamaeki, Taehkae & Koskela, 1992). In particular, anxiety and depression complicate and impair recuperation and rehabilitation and are usually evident at long-term follow-up (Brown & Munford, 1983-84; Jiang et al., 2002).

Most studies, with the exception of Carney, Freedland, Veith and Jaffe (1999), recommend the treatment of depression. Carney et al. (1999) found no normalisation in cardiac autonomic tone for patients treated for depression after MI. They suggest that treatment for depression improves the quality of the patient's life but does little to ameliorate the risk of cardiac morbidity and mortality. It is this perception that may contribute towards the finding that only 10% of post-MI depressed patients received pharmacological treatment (Schleifer et al., 1989). Jiang et al. (2002) conducted a survey of the literature on depression in individuals with CHD and attribute this in part to the pharmaceutical companies' concern with safety in respect of the various antidepressant

drugs for heart patients, as well as the lack of research regarding how the treatment of depression in heart patients improves their prognosis.

While the treatment of depression may have little merit from a prognosis point of view, the presence of depression has negative consequence for compliance with medical regimens as depressed patients are less likely to comply with recommended lifestyle changes than those who are not depressed (Brown & Munford, 1983-84; Grace et al., 2002). Furthermore, Downing, Littman, Scheer and Pegg (1992) found that depression blocked a patient's capacity to benefit from exercise. Therefore, while there may be little scientific evidence for improved prognosis in heart patients if treated for depression, dealing with depression will have a positive impact on the patient's attitude towards rehabilitation. This in turn will ameliorate the risk of further re-infarction (Timmons, 1984).

The MI survivor therefore has to face a barrage of feelings about the physical and psychological trauma that suddenly surfaces after the attack. In light of the enormity of this assault to the individual's experience of being and because of the Type A's general inability to deal with such feelings, psychological intervention is imperative when the Type A's sense of self is thus threatened. Because the MI survivor has constantly minimised and denied feelings, when these inevitably surface as a result of the life-threatening trauma, the person feels extremely vulnerable. Survivors of MI therefore have to deal with the effects of trauma to both the body and to the self.

In an act of self-preservation, individuals suffering from organic pain and discomfort tend to withdraw their interest from the outside world. They become more self-involved as part of the process of physical and emotional healing and are temporarily unable to feel love for their love objects (Freud, 1914/2001; Scherwitz, Graham & Ornish, 1985). This withdrawal negatively impacts on relationships. It is in this state of negative withdrawal that it becomes difficult to distinguish between Type As and Type Bs as the former manage to create a temporary Type B veneer (Jenkins, 1979).

Taking into account that MI survivors only succeed with difficulty in adjusting to a state of chronic illness (Langosch & Egger, 1985), it is important that psychological intervention be administered as soon after the infarct as possible. Insight and knowledge about the presence and origin of these feelings will empower the individual to deal with the trauma to the self and to the body. This in turn will improve compliance with the recommended CHD interventions.

#### 2.10 The post-myocardial body relationship

In respect of the post-MI body experience, some psychoanalysts have reported material from individual case studies (Chessick, 1987; McDougall, 1986, 1989; Miliora, 1998; Sidoli, 1993), while only two papers discuss how MI survivors attempted to normalise the experience in terms of how they constructed meaning from the incident (Cowie, 1976; Levy, 1981). No large-scale studies have been conducted that explore how MI survivors experience their bodies post-infarct. There is therefore a paucity of literature pertaining to the post-myocardial body relationship. Based on many years of clinical work with MI

survivors, the researcher believes this to be a vital aspect to include in counselling these individuals.

Because MI is a life threatening experience, it not only violates Type As' illusion of control, but is also a terrifying reminder of their existential vulnerability. This is a shocking reality for Type As and many feel let down and wounded by their bodies, which, up until now, have been treated like machines at their command (Chessick, 1987; clinical experience of the researcher). After MI there is a heightened awareness of the body and the heart. Some survivors tentatively go about physical rehabilitation for fear of causing further damage to their hearts. It is as if for the first time they become aware of their hearts as life-support organs. This is not surprising after a life-threatening experience.

These patients are in contrast to others who continue to approach the physical rehabilitation as though the heart and body are mere machines or pieces of equipment that require control. That is, there is a distancing from the body and such individuals tend to treat their bodies as though they were a foreign object. All these are examples observed by the researcher in her clinical work with MI survivors and represent the dichotomy between the mind and the body that occurs as a way of coping with the emotions about the physical trauma. Such a split invariably impedes compliance, as self-defeating behaviours, such as over-exercising, rigid dietary control to the point of exclusion rather than the moderation of important food groups, and over-working as a way of proving a sense of ability, become evident.

It is therefore vital to help the individual to understand the multi-layered impact of the MI. An awareness of the inextricable link between the mind and the body (Freud, 1905b/2001; Kaplan & Sadock, 1998; McDougall, 1986, 1989; Merleau-Ponty, 1962, 1963) is also important for empowering individuals to deal with MI as a trauma not only to the body, but also to the self.

Merleau-Ponty's concept of the lived body aptly describes the mind-body link. He suggests that the body is not just a material mass, but is a "living envelope of our actions" through which our intentions are expressed (Merleau-Ponty, 1963, p. 188). According to Merleau-Ponty, the body is not just a vehicle for expression nor is it just an object as seen by the world. "Man (*sic*) is his body and his body is the potentiality of a certain world" (Merleau-Ponty, 1962, p. 106). All that is experienced and expressed through the body, therefore, has meaning.

One way of exploring the mind-body link with MI survivors is via their metaphoric use of language as this reveals something of an individual's psychological world. Miliora's (1998) MI patient consistently described her lifetime experiences as "heartbreaking" while Morse and Mitcham (1998) found that MI patients used the definite article ("*the* heart attack" rather than the personal pronoun ("*my* heart attack") to describe their experience. Morse and Mitcham (1998) hypothesised that because physicians used disembodied language as a means of maintaining a professional distance, patients learnt this language from the physician. Their sample was too small to substantiate this

conjecture. There is also a point of view that emphasises the role of the physician without exploring why patients continue to refer to their bodies in a detached manner. The analysis of metaphoric language could therefore reveal insight into how MI survivors experience their bodies after the trauma and how this was addressed in this study will be described in Chapter 4.

### 2.11 Concluding remarks

This chapter has surveyed the literature pertaining to the multiplicity of factors that play a role in the development of CHD as well as those psychological concepts pertinent for individuals who have survived an MI. All the intricate psychological dynamics of the MI survivor must be considered in cardiac rehabilitation programmes as a way of improving compliance, preventing re-infarction and achieving overall wellness. To address the medical and physical symptoms alone is only a partial solution to the rehabilitation of cardiac patients. The following chapter presents an overview of interventions with individuals with CHD to date.

## CHAPTER THREE

### Coronary Heart Disease and Existing Psychotherapeutic Intervention Models

#### 3.1 Psychological interventions with individuals with undeveloped coronary heart disease

Numerous studies have been conducted that aimed to change the TABP and its components in individuals who had not yet presented with the clinical signs and symptoms of CHD (Gidron & Davidson, 1996; Gould et al., 1995; Nakano, Mochizuki & Sato, 1996; Roskies, 1980; Roskies et al., 1979). Gidron and Davidson (1996) conducted eight 90-minute weekly sessions to address hostility in 22 healthy males. Individuals in the experimental group reduced observed and self-reported hostility levels while these increased in the control group. Nakano et al. (1996) were equally successful in modifying the time-urgent component in healthy females by increasing participants' awareness of their behaviour. The study by Roskies et al. (1979) was conducted to evaluate the possibility of changing Type A behaviour in healthy managers. Six of the 36 apparently healthy participants who presented with clinical CHD upon physical examination remained on the study as a control group. After the initial treatment all groups showed a similar pattern of improvement which was maintained at six-month follow-up. The study indicated that presenting with the clinical signs of CHD was not necessarily the ultimate motivating factor for change. As outlined in the previous chapter, individuals with CHD are also not always motivated to change the pattern because of the presence of illness. As discussed in section 2.7, this may be due to the deeper dynamics that maintain the primacy of the pattern.

### 3.2 Psychological interventions with individuals with coronary heart disease

Methods of psychological intervention with individuals with CHD include individual psychotherapy as well as group therapy, although the latter has proved most effective with these individuals (Billings et al., 1996; Bracke & Thoresen, 1996). Group therapy has been found to create a sense of social support and interpersonal connectedness. In this social milieu, improvements were found in individuals' listening and communication skills, as well as the tendency to focus on themselves to the point of excluding others. Group participants also indicated a benefit from the feedback and experience of peers and this was deemed more valid than the feedback offered solely from a professional (Bracke & Thoresen, 1996; Friedman et al., 1986; Ornish et al., 1990). The perceived benefits of group therapy by individuals with CHD are important as these individuals are notoriously reluctant to enter into individual therapy (Condon, 1987; Roskies, 1987).

One potential drawback of group treatment with CHD individuals is that they are not always comfortable with self-disclosure of personal tragedies and sorrows (Roskies, 1987). While skills can be taught using everyday experiences and can be supplemented by homework sheets for disclosure of more personal issues, Roskies (1987) suggests that a group meeting may not, in any case, be the appropriate forum for certain levels of self-disclosure. This thought is echoed by Yalom (1994) who says that to use the group to deal with implicit past information sacrifices the here-and-now interactional focus of the group. Both authors therefore indicate that certain issues may need to be addressed in individual sessions.

Group psychotherapy interventions with individuals with CHD aim to modify the TABP and its components. Change is achieved through education about the pattern and its link with CHD, cognitive restructuring techniques, relaxation training, behaviour modification, stress management, emotional support, skills that help individuals to identify and express feelings, empathic communication, as well as psychodynamic formulations of the underlying forces that instigate and maintain the TABP (Blumenthal et al., 1997; Friedman et al., 1986; Fullard, 1982; Ornish et al., 1983, 1990; Rahe, Ward & Hayes, 1979). The Recurrent Coronary Prevention Project (RCPP) (Friedman et al., 1986) and the Lifestyle Heart Trial (LHT) (Ornish et al., 1983, 1990) produced particularly good results and have been replicated overseas (Blumenthal et al., 1997; Burell, 1996) and locally (MacLennan, 1996; Venter, 1993; Viljoen, 1993).

The RCPP and the LHT differed in terms of the emphasis placed on the psychological aspects addressed. For the RCPP, the TABP was a focal point of intervention, while the LHT achieved particularly good results with lifestyle interventions, stress management and group support meetings without reference to the TABP. Interventions with individuals with CHD do not, therefore, always focus on the TABP as a central theme as did the RCPP. Because this study was designed in part using a combination of methods adapted from these studies, their findings are presented in some detail in this chapter. Other pertinent studies are briefly summarised.

### 3.2.1 The Recurrent Coronary Prevention Project (RCPP)

The RCPP (Friedman et al., 1986) was a five-year study with a four-and-a-half-year follow-up, and comprised 928 adult male and 84 adult female post-myocardial infarction patients. Participants had experienced MIs six months or more prior to the commencement of the study, were younger than 64 years, with an average age of 53,2 years, were not diabetic and had never smoked or had stopped smoking for six months or longer. Participants were assessed for the TABP using the VSI, as well a spouse report designed for the study. All participants received a complete physical examination and a resting ECG. In addition, participants completed several self-report scales that measured anger, social support, work satisfaction, self-efficacy and ability to relax, eat, talk and walk slowly.

Participants were randomly assigned to either of two treatment groups: Type A counselling (n = 592) or cardiac counselling (n = 270). A third group (n = 150) was the control group that received no treatment. The focus in the Type A counselling group was to increase awareness of the TABP and its signs and symptoms, as well as to teach self-management techniques. Groups of 10 patients participated in weekly 90-minute sessions for two months. Thereafter they met every second week for two months and then once a month for the remainder of the study (a total of 62 sessions). In the cardiac counselling group, medical issues, as well as diet and nutrition, were discussed. Participants met bi-monthly over the five-year period (a total of 33 sessions). To test whether or not the reduced number of sessions for the cardiac counselling group had

impacted on this group, the participants in this group were re-assigned to a Type A counselling group at the end of the study for a further year.

The researchers set out to improve psychosocial health, to decrease the TABP and to abate the chances of re-infarction (Bracke & Thoresen, 1996; Friedman et al., 1986; Powell, 1996). One of the aims of the treatment programme was to reduce the excessive physical, emotional and behavioural arousal that results from the TABP. The starting point was to increase participants' awareness of the TABP and its pervasive consequences and to help them develop a greater self-awareness of personal manifestations of the TABP. Participants were taught strategies for physical and psychological relaxation, healthy alternatives to time urgency and hostility, healthier Type B behaviours and to recognise and modify Type A attitudes and beliefs. With these interventions they hoped to reduce participants' insecurity, foster healthier ways of maintaining self-esteem and help participants improve relationships with spouse, family, friends and co-workers.

Education about the TABP and the reduction of the physical tension was achieved with relaxation techniques that included abdominal breathing, progressive muscle relaxation, autogenic and guided imagery. Individuals were asked to practise these exercises on a daily basis. To improve perceptions of self-control, participants were taught to distinguish between situations that created anxiety and to identify those situations that they could or could not control. A general sense of self-efficacy or personal competence and positive perceptions of self-worth were enhanced in a number of ways: examining

Type A beliefs, assertiveness training to aid in resolving conflicts in relationships and assisting participants to find ways of experiencing self-achievement. The latter was achieved by broadening aesthetic and spiritual interests through involvement in hobbies, music, literature and art. Greater self-acceptance was encouraged via a more realistic evaluation of achievements and performance expectations.

Knowledge of the manifestations of the TABP and its pervasive consequences improved awareness of self and others. This, in turn, facilitated insight into the arrogance, the grandiosity and the self-centredness of the Type A and improved relationships with spouse, family, friends and co-workers. A significant reduction in time urgency and impatience was evident in the study (Friedman et al., 1996). This component of the TABP has been found to be predictive of CHD on its own (Suls & Marco, 1990). The researchers proposed that by responding to situations in a relaxed manner, the TABP could change.

At the end of the third year of the project, the rate of coronary recurrence was 7,2% for the Type A counselling group compared to 13% for the cardiac counselling group. Participants in the Type A counselling group also significantly reduced their TABP while individuals in the cardiac counselling group did not. When the cardiac counselling group was exposed to the content of the Type A counselling group, they too showed a marked reduction in new coronary events and in the TABP. At four-and-a-half-year follow-up after the end of the programme, participants still showed an overall reduction in self-reported depression and in the TABP as measured by the VSI. They also experienced

increased confidence about being able to relax, eat slowly and listen to others. The major physiological finding for this study was that participants sustained 44% fewer new coronary events, compared to the control group. These findings point to the value of learning about how the TABP manifests in everyday life and developing skills to reduce its presence.

### 3.2.2 The Lifestyle Heart Trial (LHT)

The LHT (Ornish et al., 1983, 1990) is the most comprehensive lifestyle intervention programme designed for individuals with CHD. The main dependent variable for the study was percent diameter stenosis of the coronary artery tested by means of an angiogram. In addition to this, blood tests for cholesterol levels were carried out. Individuals were taken off their heart medication to fully monitor the impact of the programme. The TABP was not measured or addressed directly. A diet diary and a questionnaire concerning exercise were a means of data collection for these lifestyle factors. There were 28 participants in the experimental group and 20 in the control group. The control group participants received none of the interventions and were merely monitored by their physician.

More than 13 hours of participation a week were required and individuals in the experimental group took part in a low-fat diet, exercise, two, three-and-a-half-hour stress management sessions a week and group support meetings. The stress management sessions consisted of stretching, relaxation, yoga breathing techniques and guided imagery. The group support meetings comprised twice-weekly group sessions over a

period of one year. In addition to stress management, the researchers addressed the poor interpersonal skills prevalent in individuals with CHD by focusing on the identification and expression of feelings, empathic listening and communication. They found that enhanced communication skills improved interaction with others and facilitated the development of strong emotional bonds (Ornish et al., 1983, 1990; Billings et al., 1996).

At five-year follow-up, the diameter stenosis measured at the commencement of the study had decreased slightly in the experimental group but worsened in the control group (Ornish et al., 1990). This minor decrease in stenosis was sufficient to provide improved health and decreased coronary risk. The researchers (Billings et al., 1996; Ornish et al., 1983, 1990) concluded that the lifestyle interventions of diet, exercise, stress management and support group meetings alone, that is, without any drugs or surgery, resulted in a regression of coronary atherosclerosis and improved myocardial functioning. No regression analysis was carried out to identify if any specific intervention contributed most to the change in stenosis. Allan and Scheidt (1996) comment on the small number of subjects and the extreme media coverage of this study that elevated participants to the status of folk heroes and suggest that this may have impacted on the results. However, if the media attention was a positive contributing factor, then the control group should have received some benefit from this. They did not adhere to the recommended dietary and lifestyle changes and experienced a slight worsening in their condition.

### 3.2.3 Results from other intervention studies

- (1) Blumenthal et al. (1997) replicated the RCPP by conducting 16 weekly 90-minute sessions with a 17-month follow-up with 107 CHD patients. One group addressed stress management issues by utilising education, cognitive behavioural therapy and progressive muscle relaxation that were modelled in part on the RCPP study. Another group attended exercise training. A group of CHD individuals who lived too far away to attend the programme were a non-random comparison group. At follow-up, there was a significant reduction in cardiac events (death, non-fatal MI, CABG and PTCA) in the stress management group compared to the comparison group. The stress management group also showed less hostility as measured by a General Health Questionnaire. This change was not evident in the exercise group who only showed less depression. The positive impact of exercise on depression is well documented in cardiac patients (Blumenthal, Emery & Rejeski, 1988).
- (2) Fullard (1982) conducted a six-week programme consisting of two 90-minute sessions per week (12 in total) with a two-month follow-up. He used a three-way experimental design with a psychotherapy group, a physical exercise group, and a no-treatment control condition. Subjects were white, married South African males between the ages of 35 and 60 who had experienced a first MI. He used the JAS, the Beck Depression Inventory, the Hostility Scale, the Purpose in Life Test, and a Depression Adjective Check List to gather his data. In this study the psychotherapy treatment was associated with the most significant changes. The no-treatment group indicated either no change or a consistent trend in the negative direction. Concerning findings with the JAS, individuals who participated in the psychotherapy group

indicated a reduction in the Global Type A and the Hard-Driving and Competitive scores. The other JAS component scores remained unchanged. The Hostility Scale scores also remained the same. At follow-up the changes on the JAS had not been maintained.

(3) Rahe et al. (1979) randomly assigned 44 first-time MI survivors under the age of 60 to group therapy and medical intervention and a control group that received only medical intervention. The physiological conditions monitored for cardiac morbidity included arrhythmias, angina pectoris, re-infarction and CABG. A psychiatrist clinically assessed participants for depression and anxiety and at the start of the study all participants reported low levels of anxiety. The researchers utilised a brief questionnaire, designed for the purposes of the study, to measure coronary-prone behaviours in terms of job involvement, time urgency and life dissatisfaction.

The intervention consisted of six, educationally based, bi-monthly 90-minute sessions. Topics included life stress and the onset of MI; the contribution of physical and psychological risk factors to CHD; coronary-prone behaviour; home problems; and difficulties with returning to work. At four-year follow-up all groups were less depressed than at the start of the study. The group intervention participants improved only slightly more on depression than the control group. The low levels of anxiety remained the same throughout the study. The individuals who participated in the group intervention improved significantly on the job involvement and time urgency components compared with the control group who did not improve as much. The group intervention participants also had significantly less follow-up coronary

morbidity and mortality. Deaths occurred only in the control group. Patients who received group therapy returned to work far sooner than did control patients.

Individuals who received information on the physiological and psychological aspects of CHD had little recall at follow-up. Rahe et al. (1979) concluded that those individuals who participated in the group therapy benefited the most from this supportive experience. However, at long-term follow-up the significant differences found between the groups at the start of the study had lessened. The researchers emphasised the importance of ongoing reinforcement to maintain the changes.

- (4) Venter (1993) and Viljoen (1993) jointly conducted a replication of the RCPP in South Africa, referred to as the South African RCPP (SARCPP), with 23 MI survivors who were randomly divided into either a treatment group (for eight sessions) or a control group (no intervention). No information is provided in respect of the ethnicity of the groups. The treatment group covered the basic concepts from the RCPP and individuals were assessed using the VSI, the Stress Scale, the Spielberger State-Trait Anxiety Scale and the Cook and Medley Hostility Scale. The researchers achieved their aim of shortening the 44-session presentation used in the RCPP to eight sessions and of applying the study in the South African context. They also achieved reductions of the global Type A behaviour as well as some of its components.

This study was fraught with 50% non-attendance, a very high dropout rate and insignificant changes in perceived stress, anxiety and hostility. They ascribed the lack of success to a number of factors: the lack of time given to practising relaxation and the various skills taught; insufficient attention to the various aspects of the

behaviour pattern; poor measurement devices; a small sample; and the possibility of interviewer bias on the VSI.

MacLennan (1996) conducted a revised version of the SARCPP and addressed some of the pitfalls of the SARCPP. A total of 70, mainly male subjects, who were either MI survivors or who had undergone CABG approximately one year prior to the study, and who ranged in age from 40 to 65, were allocated to three groups. No breakdown of the ethnicity of the groups is given. Twenty-two subjects participated in an eight-week intervention that was of the exact design as the SARCPP and acted as a control group in determining the effectiveness of the revised SARCPP 10-session group, which comprised 25 individuals. The remaining 18 subjects were assigned to a waiting list control group who received no intervention. MacLennan designed her own questionnaire for this study by combining the JAS, the Framingham Type A Scale and the Bortner Rating Scale (no example is given in the thesis). She also used the VSI format (but did not videotape the interview), the Behavioural Stress Index, the Beck Depression Inventory, the Cook-Medley Hostility Scale and the Anger Expression Scale. No clinical interviews were conducted but subjects completed a questionnaire about their histories.

In addition to the core input from the SARCPP, she included an opportunity to practise Type B behaviours, stress and anxiety management by means of relaxation techniques, homework exercises and discussions on self-esteem. Each individual received a manual, a drill book and a relaxation tape. A refundable deposit of R100 and follow-up calls were included to prevent relapse and resulted in a 95% compliance rate. Although she achieved some decrease in the global Type A

behaviour, there were no changes in the Type A components, or feelings of depression, anger and anxiety. She ascribes some of the lack of success to using only self-report measures and interviewer bias on the VSI.

### 3.3 Concluding remarks

All the studies cited set out to modify various aspects of the behaviour of individuals with CHD and to improve the mood states of participants. The two long-term studies, the RCPP and the LHT, produced the most significant changes in terms of a reduction in new coronary events and a decrease in diameter stenosis respectively. These studies also provided an invaluable contribution to the pool of knowledge on rehabilitating individuals with CHD. The results from these studies may have been particularly good because they were long-term interventions and they also were intensive in terms of the number of hours and type of intervention offered. However, long-term studies such as these require enormous resources in terms of funding and staff. Besides, it is difficult to determine precisely what aspect of the interventions maintained the changes in these multivariate studies. While positive changes occurred in the short-term studies, participants did not always maintain the changes at follow-up. The low success rates in these studies may have been due to a lack of qualitative information and intervention in respect of motivation and personality aspects of participants, as well as a lack of qualitative data on processes set in motion by the interventions.

While the results from these multivariate pre-post-test group comparison design studies provide substantial evidence that the TABP can be modified, they reveal nothing about

how and why their participants changed. As a result, after 55 years of research in the area of cardiac rehabilitation, poor compliance rates are still evident and interventions are plagued with a number of scenarios that negatively impact on compliance. It is evident that while some individuals change their behaviour post-infarct without intervention (Friedman et al., 1986; Jenkins, 1979; Matthews, 1988; Roskies, 1987), others cannot sustain the changes long-term (Johnston, 1993; Rahe et al., 1979). Others are unable to change their behaviour in spite of some intervention and some behaviour worsens as a result of individuals recognising how the pattern manifests in their everyday life (Roskies, 1987). Individuals who refuse help even though they are in need are of particular concern for health care professionals.

An understanding of the complex process underlying the compensatory nature of the TABP is imperative so that intervention programmes can target these underlying tenets of the pattern. This suggests that it would be valuable to complement existing research with pre-post-test group comparison designs with a programme evaluation study which is case-based and which will provide more in-depth information about participant responses, perceptions and personality factors that might contribute to resistance and dropout.

## CHAPTER FOUR

### Methodology Part I: Design of the 12-week psychotherapeutic intervention model

#### 4.1 Aims of the study

- To design and implement, with a multi-cultural South African sample, a 12-session group psychotherapeutic intervention model, based partly on overseas studies, for the rehabilitation of survivors of a first MI.
- To evaluate the intervention's practical and educational aspects and to make recommendations for improvement if indicated.
- To test the theory of the role that compensatory dynamics may play in individuals with CHD and to examine how these compensatory dynamics may complicate rehabilitation.
- To examine the extent to which compensatory dynamics can be addressed in a brief intervention both in terms of insight and sustained change.
- To use case studies to investigate whether the interventions had the intended impact by examining the psychological processes set in motion by the programme.
- To examine CHD cases in terms of a developmental analysis using a relational model perspective and to develop theory linking the two.
- To delineate implications for treatment as a result of the theory building.

#### 4.2 Psychological rehabilitation after myocardial infarction

Considering the literature surveyed and the researcher's clinical experience, the following concepts were deemed important for inclusion in a psychotherapeutic intervention model after MI: (1) the trauma of MI and the psychological impact of the experience, (2) psycho-education in respect of the function of the heart and the impact of stress on the cardiovascular system, (3) the identification and modification of the TABP, (4) the identification of feelings and empathic communication, (5) psycho-education to create psychological mindedness that could facilitate insight into the compensatory dynamics of the TABP, (6) an exploration of the effect of an MI on a survivor's experience of his or her body.

An important goal for this study was to provide psychological assistance to MI survivors so that they could reach a point of psychological readiness to accept the required lifestyle changes and to comply with their rehabilitation regimens. As outlined in Chapter 2, to overlook the emotional reactions to a life-threatening experience of an MI results in denial and over-compensation and these in turn impede compliance with recommended medical, physical and lifestyle regimens. In order to achieve this, the psychological impact of the physical trauma (i.e., the MI, the angina attacks, and so on), as well as the pre- and post-infarct psychological profile, was addressed.

One aspect of the pre- and post-psychological profile dealt with was the TABP, a pattern that developed as a means of compensating for the underlying inadequacy and low self-esteem. The individual's drive for success and achievement contributed to and facilitated

the denial and minimisation of dissonant beliefs and uncomfortable feelings about the self. Compensation was generally successful until the advent of an MI that threatened the individual's seemingly self-sufficient existence. In this study, the CHD individual's struggle to identify and express emotions and to communicate empathically was hypothesised as being due partly to a lack of skill but also to an inability to tolerate emotions that emanated from the person's earliest interactions in the mother-infant dyad.

This intervention model therefore incorporated the link between the TABP and the underlying psychological issues that instigate and maintain the pattern. The psychodynamics of the pattern, as well as general psychological concepts, were addressed in the intervention as it was hypothesised that an understanding of the nature and origin of the pattern, as well as some understanding of drive behind behaviour, could facilitate insight into the harmful and self-defeating behaviours such as smoking, unhealthy eating patterns and lack of exercise that developed as a result of the stressful Type A lifestyle. The researcher added the concept of the mind-body link as a way of exploring how these individuals felt about their bodies after an MI.

#### 4.3 General comment on the design of the intervention

Because the general research on compliance has shown a 12-week period to be an optimal time-frame (Haynes, 1979; Roskies, 1987), the researcher chose this time-frame for the purposes of this study. The researcher used some of the exercises for this 12-session group intervention model from the RCPP (already used within the South African context) and LHT studies outlined in Chapter 3. The remaining concepts are a

combination of information obtained from the literature survey and from the researcher's clinical experience. Most of the concepts addressed in the programme were covered in a series of either two or three sessions. Accordingly, where applicable, sessions are grouped together (see Appendix C for a programme outline).

Session 1 was an introduction to the aims of the 12 weekly sessions and the workings of the heart. It was also an opportunity for participants to meet one another and to share their coronary experiences and medication being taken. Sessions 2, 3 and 4 dealt with the TABP using the concepts and exercises adapted from the RCPP project. Sessions 5 and 6 addressed the issue of effective communication of feelings and empathic listening using the concepts from the LHT project. The researcher designed the content of the remaining sessions. Sessions 7 and 8 introduced psychological concepts to help participants to understand the compensatory nature of the TABP and Session 9 served as an experiential group discussion of all the concepts covered thus far. Sessions 10 and 11 covered the lived body experience after an MI and Session 12 dealt with closure. As recommended by the researchers of the international studies, each session ended with a relaxation exercise. In the following section, each session is discussed in terms of specific aims, design, concepts and practical exercises used.

4.4 Session 1: Introduction to one another, the programme, relaxation, how the heart works and coronary heart disease factors. Group discussion on the heart attack experience and prescribed medication

(a) Aims

In this first session, a comfortable, safe, trusting environment was created for the participants. The specific aims were (i) to introduce an outline of the 12-week programme, (ii) to facilitate an introduction of each participant to the group so that they could become acquainted with one another, (iii) to discuss CHD and its associated risk factors and the workings of the heart, (iv) to run a group discussion so that participants could share their MI experience and discuss medication being taken, and (v) to introduce progressive relaxation.

(b) Design process and session outline

After general introductions by each individual, a brief outline of the 12-week programme was followed by input on the practical workings of the heart. This study used the same material as Fullard (1982) (see Appendix D), firstly, for educational purposes and secondly, to facilitate an increased sense of self-efficacy in participants, a factor which has been found to improve compliance (Bandura, 1977). A group discussion enabled participants to talk about their CHD experiences, as well as the medication being taken. The idea for this kind of group discussion evolved out of the researcher's work at a cardiac rehabilitation programme where it was found that sharing a common experience proved to be an extremely comfortable ice-breaker for participants. It also created an experience of a common goal and a sense of camaraderie. This is in line with findings by

Cowie (1976), that by reconstructing the past and comparing MI experiences, the coronary incident is normalised. In addition, East, Brown and Twells (2004) found that by retelling their “stories” MI survivors revealed their ongoing fears and vulnerabilities regarding their health. Once verbalised, these could then be noted and addressed. In this first session participants were also introduced to the concept of progressive relaxation.

(c) Progressive Relaxation Training

Bernstein and Borkovec’s (1973) manual on progressive relaxation formed the basis for the relaxation technique devised by Marais (1989), which is used in this study. Marais modified Bernstein and Borkovec’s method in terms of the sequence of the muscle relaxation exercises and also varied some of the exercises. The relaxation exercises were aimed at relaxing the body. She then followed the relaxation sequence with visualisation or guided imagery as a way of relaxing the mind. Marais also produced an audiocassette tape of her method of relaxation (see Appendix E for the relaxation tape insert). Although both her method of progressive relaxation training and audiocassette tape were used successfully at the Western Cape Cardiac Rehabilitation programme and by the researcher, they were utilised in this study with an awareness that not all individuals respond well to the different aspects of relaxation exercises. Some individuals may show a preference for certain aspects of relaxation (e.g., the feeling of tensing a muscle), while feeling biased towards methods that may appear to be less Western and clinical (e.g., visualisation) (Lichstein, 1988; Smith, 1990).

In the first session, the basic concepts underlying progressive relaxation were introduced. Included was an explanation of the 15 muscle groups as well as how tension could be created in each of these (see Appendix F for wording). From Session 3, the seven-muscle group technique was introduced (see Appendix G). In addition to the relaxation exercises conducted at the weekly sessions, Marais' audiocassette tape was handed to each participant at the first session for daily practice at home. Directions on the relaxation tape insert were on Side A and the visualisation exercise on Side B.

#### 4.5 Sessions 2, 3 and 4: The Type A behaviour pattern

The aims of these three sessions were (a) to increase participants' awareness of the TABP and its components, (b) to increase awareness of the excessive physical, emotional and behavioural arousal that results from stress and the chronic TABP hostility, (c) to learn to manage the physiological effects of the TABP through relaxation and visualisation exercises, and (d) to identify personal manifestations of the TABP in terms of behaviour, emotional reactions, attitudes and beliefs by means of group discussions and work assignments.

##### 4.5.1 Session 2: The Type A behaviour pattern

###### (a) Aims

The specific aims of this session were (i) to introduce the TABP and the components of hard-driving competitiveness, time urgency, job involvement and how these can trigger anger and hostility, (ii) to introduce the concepts of the "Self-Monitor" and "Bombs and Fuses", (iii) to hold a group discussion on thoughts and feelings about the concepts

introduced, (iv) to discuss the work assignment, and (v) to experience a 20-minute relaxation and visualisation session.

(b) Design process and session outline

The lecture for Session 2 was planned around the TABP, the content of which was based on a summary of the literature (see Appendix H for wording). The concepts of the “Self-Monitor” and the “Bombs and Fuses” from the RCPP (Friedman et al., 1986) were introduced to assist participants in identifying their particular TABP.

(i) The “Self-Monitor”: The researchers of the RCPP (Bracke & Thoresen, 1996; Friedman et al., 1986) devised this concept to address the limited self-awareness of CHD individuals. Bracke and Thoresen (1996) did not expand on this concept in terms of the practical exercises given, other than to say that the Self-Monitor is a monitor that is respectful, curious and interested in understanding the self. This is as opposed to a harsh, rigid, perfectionistic, internal critic that was found to command the inner world of the CHD individual. This researcher designed a worksheet that enabled participants to take note of their emotional and behavioural responses to situations and to notice their critical or caring self-monitor responses. A covering page with wording adapted from Bracke and Thoresen (1996, pp. 271 - 272) introduced the concept. The worksheet provided columns for the date, the situation, the behaviour, the emotional response, the internal critic’s response and a caring self-monitor’s response (see Appendix I for the Self-Monitor worksheet).

(ii) “Bombs and Fuses”: This metaphor was used to identify CHD risk behaviour. The bomb was any one or all of the following: the original MI, the occluded coronary arteries, cardiac denial. The bomb could be detonated by any of the following fuses: (a) the TABP, especially anger and impatience, (b) excessive and prolonged physical exercise at high altitude, (c) excessive and prolonged physical exercise to a state of exhaustion, (d) one extremely heavy-fat meal, (e) chronic mental and emotional exhaustion, (f) excessive use of caffeine, and (g) chronic use of alcohol. The researcher designed a front page to the worksheet that introduced the concept. The second page provided three columns for the date, the situation and the fuse behaviour (see Appendix J for the “Bombs and Fuses” worksheet). Participants were asked to complete the Bombs and Fuses worksheet for the week to come.

#### 4.5.2 Session 3: Reducing Time Urgency

##### (a) Aims

In this session the researcher aimed to create an awareness of the time urgency component of the TABP and to provide a learning experience for alternative, healthier Type B behaviours. The specific aims of this session were (i) to introduce the concept of stress and the stress response, (ii) to develop a further awareness of time urgency, (iii) to hold a group discussion on thoughts and feelings about the concepts introduced, (iv) to discuss the previous week’s work assignment, and (v) to experience a 15-minute relaxation and visualisation session.

(b) Design process and session outline

The session commenced with a lecture on the physiological and emotional consequences of stress in terms of the fight-flight response and its link with CHD (see Appendix K) (Everly, 1989; Friedman et al., 1958; Friedman et al., 1975; Glass, 1977; Jenkins, 1971; Kvetnansky, 1992; Markovitz et al., 1996; Nestel et al., 1967; Rosenman & Friedman, 1971; Russek, 1965; Wolf, 1967). An adapted version of Everly's (1989) systems approach was used to impart this information (see Appendix L). As administered by Friedman et al. (1986), this information was formulated (i) to help individuals to understand the cognitive-affective appraisal process in terms of their particular history, belief system and personal make-up, (ii) to assist in the identification of particularly difficult stressors, (iii) to teach strategies to avoid, minimise and modify exposure to stressors, (iv) to teach skills to deal with the stressors, and (iv) to highlight ways of dealing with the physiological effects of stress through exercise and relaxation. In this study, participants were given an adapted version of the Holmes and Rahe stress scale as a homework exercise to assess their life stressors (see Appendix M). Time-urgent behaviour as a component of the TABP was introduced and a general group discussion was held about the new concepts (see Appendix N for lecture outline).

The researchers of the RCPP (Bracke & Thoresen, 1996; Friedman et al., 1986) tackled the reduction of time urgency through discussions about its nature, causes and destructive effects. Time-urgent behaviour was reduced by making individuals aware of specific manifestations of such behaviours. Daily drill sheets were devised to help participants find healthier alternatives to the usual time-urgent and hostile behaviours associated with

the TABP. These involved structured exercises that focused on acting and thinking in healthier, Type B ways. The exercises were aimed at modifying actions and attitudes in the areas of impatience (e.g., “Eat more slowly”), hostility (e.g., purposely say “Maybe I’m wrong”), self-esteem (e.g., “Contemplate your positive achievements for 10 minutes”), and improving relationships (e.g., “Ask a family member about his or her day’s activities”). For example:

- Monday: Alter one of your usual habits or ways of doing things.
- Tuesday: Ask a member of your family about their day’s activities.
- Wednesday: Leave off your watch.
- Thursday: Walk more slowly.
- Friday: Verbalise affection to spouse or children.
- Saturday: Eat more slowly.
- Sunday: Practise smiling as you remember two to three happy events of the past.

A survey of the general literature on this TABP component provided additional examples that could be used in the worksheet devised for this study. The following time-urgent drills from the study by Nakano et al. (1996) were also used:

- Fix the number of minutes of eating per meal.
- Sit at the dining room table during the time for eating.
- Do not read or work at meals.
- Plan how to spend time relaxing after each meal by, for instance, listening to music or watching TV.

- Leave places of work and spend the time relaxing somewhere else.
- Do not work, and do not even think about work during the relaxation time.

The covering page for the worksheet designed for this study introduced the time urgency concept. The second page provided a diary of daily Type B behaviours for participants to practise. A column was provided for comments by participants about their experiences with these exercises. A list of additional exercises for future practice was also included (see Appendix O for the Time Urgency worksheet).

#### 4.5.3 Session 4: Reducing anger and hostility

##### (a) Aims

The aims of this session were similar to those of the RCPP (Bracke & Thoresen, 1996; Friedman et al., 1986). They were (i) to reduce anger and hostility by increasing awareness of how these personally manifested for participants, (ii) to increase awareness of situations that evoked anger and hostility, (iii) to increase awareness of situations which created anxiety, insecurity, stress and promoted displaced anger and hostility, (iv) to identify and modify personal beliefs, and (v) to develop, practise and apply healthier methods of dealing with provocative situations.

##### (b) Design process and session outline

In the RCPP (Bracke & Thoresen, 1996; Friedman et al., 1986) group discussions were held to address the reduction of anger and hostility of its participants and to increase awareness of the signs and symptoms of the TABP. The content of this session was

designed around the material used in the RCPP (Bracke & Thoresen, 1996; Friedman et al., 1986) (see Appendix P for wording of the lecture). In this study, participants were introduced to the concept of impatience or irritation as a response to a stressor. Based on the concept of classical conditioning, the researcher pointed out that reactions to the same stressor over time could become conditioned and automatic. The researcher also noted that while some stressors may be unpredictable and therefore leave one feeling out of control, that one did have a choice in terms of how one reacted. Participants were asked to consider if they had been angry within the past 24 hours and to think about what had caused the reaction. They were also asked to think about a range of possible reactions to the same situation. The “Bait and Hook” exercise from the RCPP (Bracke & Thoresen, 1996; Friedman et al., 1986; Powell, 1996) was a useful one for explaining how belief systems act as hooks that activate a reaction to a stressor.

(i) The “Bait and Hook” exercise: In the RCPP (Bracke & Thoresen, 1996; Friedman et al., 1986; Powell, 1996), participants were taught that one’s belief system colours one’s perceptions of a situation. The belief system was described as a hook, while obstacles in life were the bait. It was pointed out that one’s personal perception of a situation acted as the hook that activated the aggressive response. Participants were encouraged to understand that while one could not always control the environment, one could control one’s reaction to a situation. This exercise helped participants to identify bait situations, as well as to identify personal belief systems. Belief systems that were challenged included ideology (e.g., politics, religion, and so forth), attitudes, situations that press for deadlines, and so on. This researcher designed a cover page that introduced the Bait and

Hook exercise and a second page that provided four columns to note the date, the bait situation, the hook attitude and the underlying belief system (see Appendix Q for the Bait and Hook worksheet).

(ii) The “AIAI” acronym: In the RCPP (Bracke & Thoresen, 1996; Friedman et al., 1986), the acronym “AIAI” (anger, irritation, aggravation, impatience) was used to describe the typical knee-jerk reaction towards stress exhibited by the TABP individual. This acronym was included in the lecture content.

#### 4.6 Sessions 5 and 6: Effective communication and empathic listening

Sessions 5 and 6 dealt with effective communication and expression of feelings, as well as empathic listening. The overall aims for Session 5 and 6 correspond to those of the researchers of the LHT (Ornish et al., 1983, 1990), which were to enhance participants’ interpersonal styles of communication within a supportive group environment. Specific aims for each session are outlined below.

##### 4.6.1 Session 5: The identification and expression of feelings

###### (a) Aims

The aims of this session were (i) to introduce the overall concepts of communication and effective listening, (ii) to introduce the concept of communicating with “I feel” messages, (iii) to conduct a 10-minute meditation exercise, (iv) to focus on a feeling and to communicate this with the group, (v) to hold a group discussion on thoughts and feelings about the concepts introduced thus far, (vi) to discuss the previous week’s work

assignment, (vii) to discuss the work assignment for the present week, and (viii) to experience a 15-minute relaxation and visualisation session.

(b) Design process and session outline

The LHT researchers (Ornish et al., 1983, 1990) focused on the self-affirming properties of self-expression and worked with the identification and expression of feelings as follows:

- A meditative exercise commenced with a focus on breathing and a general feeling state. This method was used to quieten and relax participants. They were then asked to become aware of a feeling and if necessary to locate it as a physical sensation, such as a heartbeat.
- The inner state experience was then translated into language by asking participants to use words to describe the feeling. For those participants who struggled with putting words to a feeling, it was suggested that they take cognisance of a physical sensation and put words to that physical sensation. For example, if someone experienced a fast pulse rate, this was described in words. Participants had to distinguish between a feeling and a thought. For example, “I feel that I am right” was defined as a thought rather than as a feeling. Participants were asked to continue being aware of this process throughout the day.

- The session concluded with an exercise which required that participants complete a sentence beginning with “I feel...” or to use one word to describe how they felt.

The current study used the same method as the LHT. In addition, the concepts that had been introduced thus far in the study were planned as topics for discussion and communication (see Appendix R for overhead for this lecture).

#### 4.6.2 Session 6: Listening with empathy and compassion

##### (a) Aims

The aims of this session were (i) to conduct a five-minute meditation exercise, (ii) to introduce the concept of empathic listening, (iii) to work in pairs in order to experience this concept, (iv) to use this opportunity to discuss insights from the Self-Monitor, Bombs and Fuses and Bait and Hook exercises using “I feel... messages”, (v) to introduce the work assignment which was to listen to others empathically, and (vi) to experience a 20-minute relaxation and visualisation session.

##### (b) Design process and session outline

In order to improve the ability to listen empathically and with compassion, this study used the guidelines from the LHT (Ornish et al., 1983, 1990). They were as follows:

- Participants were advised that everything that took place had meaning. In addition to the actual words spoken, it was suggested that silence was also

a form of communication. It was pointed out that jokes and sarcasm were poor forms of communication.

- Participants were encouraged to listen carefully, to scan their own pasts for similar feelings or situations and to relive them briefly in imagination before responding. Giving unsolicited opinions and advice was discouraged, the rationale for this being that these kinds of responses often left the person who was sharing with a feeling of inadequacy for not being able to solve his or her own problem. Furthermore, the advice-giver would then assume a position of superiority with the result that the person receiving the advice would feel withdrawn and isolated in his or her experience of not being understood. This could add to existing feelings of low self-esteem.
- In terms of the expression of empathy and compassion, and to enhance the connection in the group, it was suggested that participants not give advice, reassurances or testimonials about their own successful or unsuccessful experience with a problem unless asked to do so.
- The LHT informed participants that empathic responses usually took the form of sharing a feeling through a physical sensation, an emotion, or a memory of a similar experience.

Over and above the method followed by the LHT, the researcher added two further guidelines. These were that participants should not judge an experience or a feeling, and should listen with the other person's ears, that is, listen to what she or he wants you to

hear. In the session, participants were given the opportunity to practise the concepts introduced thus far by working in smaller groups of twos and threes. The importance of using “I feel...” messages and listening with empathy and compassion was emphasised. (See Appendix S for lecture outline.)

#### 4.7 Sessions 7, 8 and 9: The compensatory nature of the Type A behaviour pattern

These three sessions dealt with the TABP as a compensation for insecurity and low self-esteem. The previous sessions indirectly addressed insecurity and self-esteem by examining the TABP and the underlying belief system. Increased self-awareness and self-efficacy were reinforced with the homework exercises. Besides improving communication, it was intended in Sessions 7, 8 and 9 to increase an awareness of self, of how a sense of self develops, as well as potential vulnerabilities and strengths of the self. In order to achieve this, a number of specific aims were identified for each session.

##### 4.7.1 Session 7: Basic psychological concepts, narcissism and the Type A behaviour pattern

###### (a) Aims

The overall aim of this session was to introduce some general psychological concepts. The specific aims for this session were (i) to introduce the concepts of behaviour, the self and other, the conscious and unconscious, and the connection between emotions and experiences, (ii) to relate the story of Narcissus, (iii) to introduce the concept of the world as a mirror experience, (iv) to introduce the concept of defence mechanisms, (v) to integrate this theory with that of the Self-Monitor, the Bombs and Fuses, and the Bait and

Hook, (vi) to do a brief meditation exercise to visualise the “inner core or self” and how it has been protected, (vii) to work briefly in pairs to relate how the “inner core or self” was visualised, (viii) to use “I feel...” messages and listen with empathy, (ix) to introduce the work exercise which was to take note of reactions to situations in the coming week, and (x) to experience a 20-minute relaxation and visualisation session.

(b) Design process and session outline

The lecture content for this session has been used successfully by the researcher in general lectures to the public and teaching organisations. Where necessary, it was adapted for the programme.

(i) Behaviour: This aspect of the lecture was aimed at helping participants to understand that all behaviour has meaning (see Appendix T for overhead). The researcher used the metaphor of the behaviour as the tapestry of the psyche to explain that what one sees in terms of behaviour may be motivated by a host of complex forces, symbolised by the interwoven threads on the flip side of a tapestry. The homework exercises from the previous sessions were used to reinforce this notion. The exercises completed thus far had started with the recognition of a particular behaviour or response. Analysis of this behaviour led to a deeper understanding of the behaviour and the accompanying emotions.

(ii) The conscious and the unconscious: A triangle divided by a horizontal line was used to present this concept (see Appendix T for overhead). The top part of the triangle

represents the conscious mind, the lower part the unconscious mind and the horizontal line the variety of defence mechanisms potentially used. Examples given of unconscious material included Freud's thinking on dreams, jokes and slips of the tongue (1905a/2001). The use of psychotherapeutic intervention as a way of connecting the conscious and the unconscious in order to reveal the unconscious was introduced. This is in keeping with Winnicott's (1989) view that nothing new is revealed as it is already known - it is just new to consciousness. In previous lectures the researcher found that this type of introduction to the concept of therapeutic intervention lessened some of the anxiety that individuals experience concerning exploring their difficulties through psychotherapy.

(iii) The "self and other": Participants were introduced to the concept of "self and other". Two circles depicted the physical separateness between oneself and the rest of the world, or other (see Appendix U). The way that individuals protect themselves from the other was shown by a line symbolising a "wall" of defences. The importance of creating a bridge between oneself and the world, the conscious and the unconscious, as well as between emotions and experiences, was discussed. It was suggested that every experience that one reacts to could be seen as a mirror of oneself and that one could learn from these experiences and interactions with others. An understanding of one's behaviour and emotional reactions was posited as an opportunity for gaining such an understanding (see Appendix V). At this point, the exercises that had been completed thus far were restated and discussed in the light of previously presented material.

(iv) The Greek myth of Narcissus: Cooper's (1986) version of the myth is well written (see Appendix W for the myth read to participants). The researcher chose to read the myth to the participants as it was thought to be a non-threatening method of introducing the concept of narcissism. It was also a simple way of talking about the world as a mirror for one's experiences and interactions in the world.

(v) Defence mechanisms: A very simple definition of a defence mechanism was presented to participants. It was defined as "an adjustment made, often unconsciously, either through action or the avoidance of action to keep oneself from recognising personal qualities or motives that might lower self-esteem or heighten anxiety" (Atkinson, Atkinson & Hilgard, 1983, p. 624). A list of the major defence mechanisms was adapted from Kaplan and Sadock (1998, pp. 220-221) (see Appendix X). In smaller groups of twos and threes, individuals were given the opportunity to identify which defence mechanisms they believed they used. The researcher joined the various groups intermittently to facilitate the discussions.

A worksheet was devised to summarise and reinforce the concepts covered thus far. These included a trigger factor or situation, the ensuing reactive behaviour, the accompanying emotion, the Fuse, the Bait, the Hook, the underlying belief system and the Self-Monitor response (see Appendix Y for worksheet).

#### 4.7.2 Session 8: The “Triangle of Relating”

The broad aim of this session was to increase participants’ awareness of how past experiences impact on present behaviour.

##### (a) Aims

The specific aims were (i) to introduce the concept of the “Triangle of Relating”, (ii) to conduct a brief meditation session in which participants were asked to visualise a recent situation in which they had reacted rather than responded, (iii) to work in pairs to discuss insights, (iv) to use “I feel...” messages and to listen with empathy, (v) to share insights as a group, (vi) to introduce the work exercise which was to use the Self-Monitor to note reactions versus responses to situations, (vii) to then use this information to understand the root cause of the reaction, and (viii) to experience a 20-minute relaxation and visualisation session.

##### (b) Design process and session outline

The material covered in the first seven sessions identified and increased the awareness of patterns of communication and behaviour. An identification of a pattern does not tap into historical factors, nor does it indicate how such factors contribute to why one reacts or responds to situations or people in a particular way. The concept of the “Triangle of Relating” was used to achieve the aims. The Triangle of Relating evolved through its use in the clinical practice of the researcher in an attempt to find an uncomplicated way of communicating how an understanding of one’s past impacts on the present. The researcher found that knowledge of this enhanced self-efficacy and self-knowledge and facilitated a deeper understanding of behaviour. It also provided an opportunity for a

deeper psychological awareness of the role of the TABP as a compensatory mechanism for preventing access of the outside world to the core vulnerability. A simple diagram (see Figure 4) depicted the influence of the past on the present. A worksheet was devised so that individuals could make notes of reactions to situations and people in the week following the session (see Appendix Z for worksheet).

#### 4.7.3 Session 9: General discussion

Session 9 provided an opportune moment to facilitate an extended discussion concerning the vast number of concepts introduced to the group thus far.

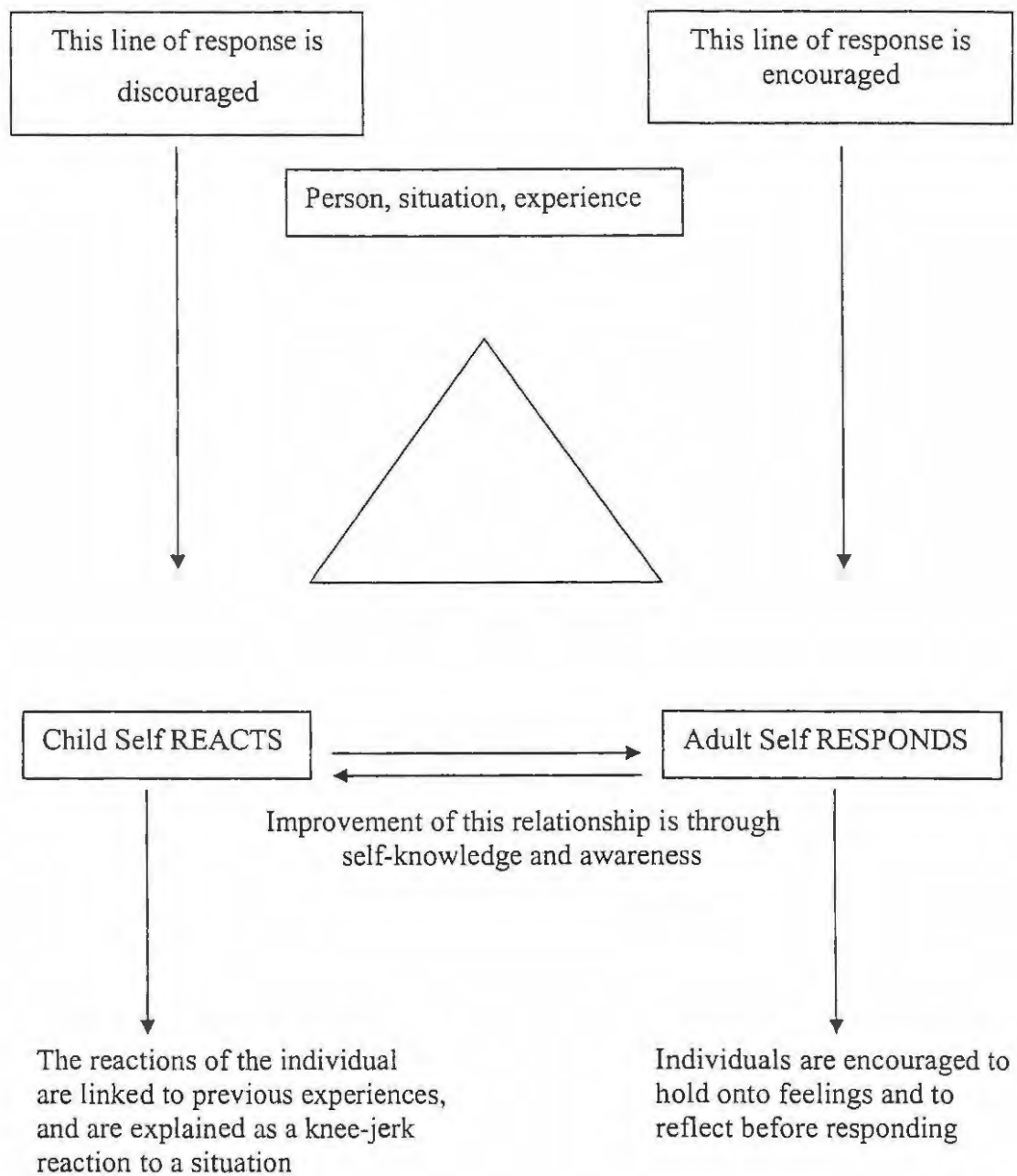
##### (a) Aims

Specific aims for the session were (i) to begin the session with a short meditation exercise to help participants identify a feeling state, (ii) to work in pairs to discuss insights obtained as a result of the previous work exercise on understanding the root of one's reactions, (iii) to use "I feel..." messages and to listen with empathy, (iv) to identify connections to the self, the TABP, self-esteem and defence mechanisms with the assistance of the facilitator, and (v) to experience a 20-minute relaxation and visualisation session.

##### (b) Design process and session outline

No new material was conceptualised for this session as it was a summary of concepts covered thus far.

Figure 4

The Triangle of Relating

#### 4.8 Sessions 10 and 11: The post-infarct mind-body relationship

The next two sessions covered the concept of the post-infarct mind-body relationship. The main aim of this section of the intervention model was to offer to participants the possibility that metaphoric language that is embodied, as well as illnesses or physical symptoms, has a deeper meaning. This meaning attests to the fact that there is a mind-body connection and that many everyday expressions and physical symptoms can reveal something of the psychological world.

##### 4.8.1 Session 10: The mind-body connection

The concept of the mind-body connection provided a context for discussion and exploration of the experience of the body after MI.

###### (a) Aims

The overall aim for this session was to create a general awareness of the mind-body connection and to facilitate a more in-depth understanding in terms of specific illnesses. The session aimed (i) to ask participants to list any physical illnesses or symptoms, (ii) to then present the concept of the mind-body connection, (iii) to present the concept of the lived body, (iv) to ask participants to brainstorm everyday communications which in some way had reference to the body, (v) to look at the list of illnesses drawn up at the beginning of the session and try to link them with some emotional or other life situation experienced at the time, and (vi) to experience a 20-minute relaxation and visualisation session.

(b) Design process and session outline

The lecture commenced with a brief outline of the history of the mind-body split from the time of Descartes in the seventeenth century, to the more integrated view that is held today. The impact of the Cartesian split on modern medicine was expounded (see Appendix AA for lecture). A brief story from Patton (1990, p. 9) was used to describe how one's belief system can influence one's perspective on an issue:

A man who lived in a country without fruit set out to discover this much heard of and exciting sounding thing called fruit. He carefully followed the map he was given and eventually arrived at an apple orchard. It was springtime and the apple trees were in blossom. He entered into the orchard and sampled the blossoms on a number of trees. While the blossoms were incredibly beautiful, he found them bitter to the taste. He left the orchard deciding that this thing called fruit was not so amazing after all. Because he did not know the difference between spring blossoms and ripe apples, he never realized that he still had not tasted fruit.

This story served as an introduction to the idea of the lived body in that, if one believes that physical symptoms are purely physical, then that is what one continues to believe. Joyce McDougall's (1989) concept of the drama played out in the body was presented as a way of linking with Merleau-Ponty's (1963) concept that everything that happens in the body has meaning and that the body assists us in actualisation. Participants brainstormed

a list of everyday sayings that pertain to metaphoric language that is embodied. For example, “I need to get this off my chest”, as a way of expressing the need to talk about something; “I feel choked up”, as a way of communicating overwhelming feelings, and so on. Participants were asked to note words used by others which might indicate a connection between mind and body, and to discuss these in the next group meeting. In addition, participants had to think about the functions of the heart and to furnish examples of their understanding of what might be expressed in the experience of a heart attack. This was followed by a discussion around their personal experiences of their heart attacks in the context of trying to understand the message played out in the body. Group discussions pertaining to thoughts and feelings concerning these concepts were held.

#### 4.8.2 Session 11: The lived body experience after myocardial infarction

The general aim of this session was a continuation of an exploration of the lived body experience after MI.

##### (a) Aims

The specific aims were (i) to hold a brief feedback discussion of the previous session to ascertain whether or not individuals were more aware of everyday language used by themselves and others that was embodied, (ii) to discuss the possible meaning of a heart attack or by-pass experience, or both, (iii) to experience a 25-minute relaxation and visualisation session that focused on the heart attack experience, and (iv) to hold a discussion of this relaxation exercise.

(b) Design process and session outline

A relaxation and visualisation exercise was carried out which addressed all body parts, starting from the toes and moving up through the body. Participants were asked to think of any past injuries or illnesses and to try to relax through whatever experience or visualisation came up for them while that particular part of the body was being relaxed (see Appendix BB for a verbatim transcript of this particular relaxation exercise).

4.9 Session 12: Summary of past 11 weeks and closure

(a) Aims

The main aim of this session was to facilitate closure of the programme.

(b) Design process and session outline

After 12 weekly sessions together, it was important to facilitate closure, an integral part of any group intervention (Yalom, 1994). The session commenced with a brief meditation to focus participants on the here-and-now, after which each member was given a chance to say how she or he felt about closure and the experience of the group. The researcher summarised all the concepts used in the preceding 11 sessions and participants were given a summary sheet as well as visual aids in the form of cards to help them remember key aspects from the sessions. By the end of the programme participants had a file consisting of all the lecture notes and concepts presented. The researcher planned a goodbye ritual in the form of a finger-supper and a planned follow-up event to facilitate the process of closure.

#### 4.10 Concluding remarks

This chapter has outlined the design of each of the 12-session interventions for this study.

The next chapter presents the implementation of the intervention, how the data was collected and the process of data reduction.

## CHAPTER FIVE

### Methodology Part II: Implementation and data collection

#### 5.1 Participants

##### 5.1.1 Initial inclusion criteria

At the outset of the study, participants were matched against the following selection criteria:

1. A first MI within a period of three months prior to selection.
2. A maximum age of 60 years.
3. Attendance, or future attendance, at physical rehabilitation.
4. Availability of a spouse or partner who could co-rate the participant's behaviour.
5. A commitment to attend all 12 sessions.

##### 5.1.2 Rationale for the inclusion criteria

Rahe et al. (1979) found that participants who began treatment soon after an MI were less depressed at the end of the programme and had also maintained a level of sexual functioning. Delay in commencement of treatment was therefore thought to complicate successful rehabilitation. The age was initially restricted to 60, based on the finding by Friedman and Ghandour (1993) that individuals who have an MI under the age of 60 invariably are Type As. The need for some form of physical exercise was included as a criterion as the positive effects of exercise on health have been well established (Allan & Scheidt, 1996). The criticism levelled at mainly self-report scales was addressed by

including a rating scale from a spouse or significant other, which necessitated the fourth inclusion criterion. The fifth point is self-evident.

### 5.1.3 Exclusion criteria

The following exclusion criteria limited potential confounding variables:

1. The experience of more than one MI.
2. Major heart surgery, such as a by-pass or open heart surgery.
3. Any other serious medical or psychological disorder.
4. Current psychological intervention.

### 5.1.4 Process of selecting participants

The researcher intended to obtain a diversity of ethnic groups in the study and therefore wrote to Cape Town-based private- and general hospital-based cardiology practices and cardiac rehabilitation programmes. Cardiologists and convenors of the programmes were also communicated with telephonically. One cardiologist from a local training hospital replied to the request for participants, indicating that the selection criteria were too stringent and that no patients fitted the criteria. Another cardiologist communicated the same comment telephonically. Other cardiologists did not respond, despite numerous attempts by the researcher to contact them. Only one of the local cardiac rehabilitation programmes responded with a list of names. From this list, one participant was suitable for the study. In light of comments from the cardiologists and rehabilitation programme convenors, the inclusion criteria were then adjusted as follows:

### 5.1.5 Revised inclusion criteria and participant spread

1. A first MI within a period of 12 months prior to selection.
2. A maximum age of 65 years.
3. Attendance, or future attendance, at physical rehabilitation, or participation in some form of physical exercise such as walking.
4. Availability of a spouse or partner who could co-rate the participant's behaviour.
5. A commitment to attend all 12 sessions.

The initial exclusion criteria of having had only one MI within the past three months was therefore broadened to a year, the age limit was increased, and exercise as part of a personal regime, such as walking, was considered adequate. The researcher then placed a series of advertisements in local community newspapers that are freely distributed to a range of cultural and socio-economic areas. The diversity of people who called in still did not fit the criteria. For example, some individuals had not yet presented with the advanced stages of CHD in the form of either angina pectoris or MI, or both, but were concerned about their high cholesterol and hypertension levels. In the end the researcher commenced the research with a mixed group of nine individuals. The final sample consisted of individuals who had had more than one MI, as well as two who had undergone by-pass surgery, but who had not had an MI. Two participants were over the age of 65 and one of these (participant 7), was judged to be at high risk for non-compliance because he denied having had an MI, did not take his cholesterol medication and was persuaded to join the group by his wife. Table 1 is a summary of the

Table 1

Demographic information and medical status of participants

SEX	CULTURE	CODE NAME	AGE	MARITAL STATUS	MI	CABG	OTHER	REHAB
1.Female	White	AvR	63	Married	1999		Angina	No
2. Male	White	BC	55	Fiancée		CABGx5 22.4.02	Angina	No
3. Male	White	EN	58	Married	05.05.02		Pacemaker Stent	Walking
4. Male	Coloured	HP	58	Married	1995 1998	CABGx4	Diabetic	
5. Male	White	JC	50	Married	1999 05.02			No
6. Male	White	LR	67	Single Boyfriend	29.6.01			Yes
7. Male	Coloured	NH	65	Married	06.01			Walking Bowls
8. Male	White	RB	55	Divorced Girlfriend		CABGx4 19.03.02	Stent Angina	
9.Female	White	UL	66	Divorced	08.02.02		Stent	Walking

demographic spread and medical status of the participants. The study sample consisted of mainly White South African males and females and only two Coloured South African males. The absence of Asian South African participants was unfortunate as this population group suffers the highest mortality rate due to CHD (Bradshaw et al., 1995; Bradshaw et al., 2002). No Black South African participants were represented in the sample.

#### 5.1.6 Participant dropout

Participant 7 dropped out after Session 2, participant 3 after Session 4, and participant 9 missed Session 4 and then dropped out for personal reasons after Session 6. Participant 2 attended intermittently but remained until the end. Thus only 5 of the 9 participants engaged with the whole programme.

#### 5.2 Implementation of the intervention

At the outset of the study it was intended that the intervention would take place over 14 weeks. During the course of the study, the intervention was shortened to 12 sessions. This later proved to be a short-sighted decision and the implications of this are discussed in Chapter 7. The researcher and a colleague worked together to implement the programme and collect the research data. The colleague was unable to attend Sessions 6, 7, 10 and 11. He conducted all the relaxation exercises for those he did attend and also presented the lecture content for Session 5. The programme was conducted at the conference facilities of a private hospital at no charge to the researcher. The 12 sessions,

of 90-minute duration each, were conducted weekly, except for a one-week break between Sessions 5 and 6, when the researcher was unable to attend for personal reasons.

An addendum to the structured 12-week intervention was the inclusion of 6 to 8 individual sessions at 18-month follow-up for two case study participants who were struggling to maintain the changes achieved during the programme. The material obtained and the changes in these individuals that occurred as a result of these sessions provided invaluable information for a revised format of the structured intervention. The final version of the intervention is therefore a 12-week psychotherapeutic intervention model with additional individual psychotherapy sessions.

### 5.3 Methodology: Multiple case study design

The aim of this study was not to replicate the outcome of overseas studies, but to obtain qualitative data on the application of a psychotherapeutic intervention model implemented in the South African context. For this purpose a multiple case study design rather than a group comparison was the appropriate methodology (Edwards, 1996, 1998; Edwards, Dattilio & Bromley, 2004). To date, interventions with individuals with CHD have been predominantly of the pre-post-test group comparison design (see Chapter 3). While these interventions have provided substantive data on how to modify the TABP, they have not added to existing case law (Edwards, 1996) pertaining to the complex processes underlying the compensatory nature of the TABP. Although these pre-post-test group comparison design interventions were grounded in psychological theory hypothesised to underlie the TABP in individuals with CHD, no case-based research has

been conducted that explores the minute and personal process of how and why individual changes may or may not have occurred in response to these interventions. An understanding of this process is vital as modifications to the pattern are not always successfully maintained, suggesting that the core of the compensatory nature of the TABP is not being addressed in existing models of interventions with individuals with CHD. A case-based research design would allow for examination of this process in response to an intervention and would also provide the opportunity for theory building, particularly in respect of a relational model hypothesis that the origins of the low self-esteem and insecurity of individuals with CHD emanate from the earliest interactions in the mother-infant dyad.

Because case-based research enables a longitudinal tracking of an individual's phenomenological experience and psychological processes in response to an intervention (Edwards, 1998; Edwards et al., 2004), participants' motivations, attitudes and beliefs can be examined for how they may positively or negatively impact on the success of an intervention. Information obtained from such research enables a construction of evidence that supports or refutes conclusions in existing case law. Multiple case studies enable a comparison of observations from several cases and common themes form a basis from which hypotheses and general principles may be formulated. For these reasons, the multiple case-based research design was chosen for this study (Edwards, 1998).

This multiple case study incorporated an experimental component (Edwards, 1996) by way of the 12-week intervention. Participants' responses to the intervention were

closely monitored and examined by various measurements conducted before, during and after the study. These measurements provided baseline, intervention and follow-up data (Edwards, 1996), and included the Frewen Cardiac Rehabilitation Psychological Assessment Interview; the Profile of Mood States; the Jenkins Activity Survey; a Spouse Rating Scale designed by the researcher; weekly feedback sheets; research interviews; group-session videotapes; homework sheets; and follow-up interviews. Each of these methods of data collection is discussed below. Table 2 presents a time-line which explains the timing of the various data collection procedures in conjunction with the timing of the group therapy sessions. Six to eight individual psychotherapy sessions were conducted for two of the case study participants at 18-month follow-up, while the third case study participant attended only two individual feedback sessions. The format of these individual sessions is described in 5.4.12. Based on the data obtained from these measurements, case narratives were constructed (see Chapter 6).

#### 5.4 Data collection

##### 5.4.1 Informed consent and contract with participants

At the first interview, individuals were informed of the researcher's qualifications, about the purpose and goals of the study, the required nature of their participation, how the data would be used (i.e., the use of questionnaires, a spouse rating scale, homework sheets and exercises, tape-recordings of individual sessions and videotapes of group sessions), how the information and their confidentiality would be safeguarded and that a colleague would be assisting with the intervention. Anonymity was discussed and the researcher assured individuals that their identities would be protected by the use of their initials

Table 2

Time frame and implementation of data collection

AI	S1 – S5	S6	S7 –S12				
		R1		R2	F1	F2	F3
CAI							
JAS				JAS	JAS	JAS	JAS
SRS		SRS		SRS	SRS	SRS	
	WFS	WFS	WFS				
	HS	HS	HS				
POMS	POMS	POMS	POMS	POMS	POMS	POMS	POMS

Tools for data collection

CAI	Cardiac Assessment Interview
JAS	Jenkins Activity Survey
SRS	Spouse Rating Scale
POMS	Profile of Mood States
WFS	Weekly feedback sheets
HS	Homeworksheets

Time frame of the data collection

AI	Pre-programme assessment interview
S1–S5	Sessions 1 to 5
S6	Session 6
R1	Research interview 1
S7-S12	Sessions 7 to 12
R2	Research interview 2
F1	Six-week follow-up interview
F2	Eighteen-month follow-up interview
F3	Monitoring after individual sessions

only. Participants were encouraged to voice concerns about the study to the researcher at any time throughout the study and the researcher indicated that she would attempt to address these to their satisfaction. Although individuals were asked if they could commit to the duration of the study, they were also informed of their right to withdraw if they so chose.

An ethical consideration that arose was how to protect the identity of one of the participants whose personal information reported in the case narrative would have made it easy for him to be identified. Although the information was altered to protect his identity, one further measure was instituted after discussion with him and that was that the thesis be embargoed for a period of five years.

#### 5.4.2 The Frewen Cardiac Rehabilitation Psychological Assessment Interview

The format of this standard, structured interview (see Appendix CC) was developed, refined and used over many years by the researcher in her work with cardiac patients and evolved out of her master's thesis (Frewen, 1991). Factors found to be pertinent for compliance were taken into consideration in developing the screening interview. These include how the individual feels about the experience of the MI (or CABG, or both) in terms of locus of control, the life-threatening nature of CHD, an understanding of the cause of CHD, for example, hereditary factors, relationship difficulties, a sedentary lifestyle, stress, diet, alcohol intake, smoking habits, high cholesterol levels, elevated blood pressure, what medication was prescribed and the individual's understanding of the

function of the medication (Frewen, 1991). A personal history was obtained and the particular defence mechanisms employed by the individual assessed.

This tape-recorded interview was conducted at the beginning of the study and provided information that situated and offered an understanding of critical events in participants' lives that might have predisposed them to the development of CHD. In addition, these events may have precipitated their MIs. Information was later transcribed and the information used by the researcher for case conceptualisation. The assessment interview questionnaire provided a more than adequate guide-line and format for obtaining all the information pertaining to individuals' particular styles of psychological and emotional coping so that a thorough case formulation could be devised. From this basis, the psychological intervention and psycho-education could commence.

#### 5.4.3 The Profile of Mood States (POMS)

The Profile of Mood States (POMS) (see Appendix DD) is a standardised, self-report scale developed to provide subjective data on transient affective states such as feeling, affect and mood (McNair, Lorr & Droppleman, 1971). The POMS has been used in previous studies overseas with participants with CHD (Fukunishi & Hattori, 1997) and in South Africa (Frewen, 1991; Frewen, Schomer & Dunne, 1994). It was administered at the start of the current study, on a weekly basis throughout the study, at the end of the study and at six-week and at 18-month follow-up.

The POMS measures six mood states: tension-anxiety (T), depression-dejection (D), anger-hostility (A), vigour-activity (V), fatigue-inertia (F) and confusion-bewilderment (C) (McNair et al., 1971). These mood states are measured against sixty-five, 5-point adjective rating scales with intensity modifiers ranging from a minimum of zero to a maximum of five. The responses are added to obtain a score for each mood factor. All items, except for two, are keyed in the same direction. Item 22, "Relaxed", for the tension-anxiety scale and "Efficient", item 54 in the Confusion scale, are negatively weighted. A total mood disturbance (TMD) score reflects a global estimate of the affective state and is obtained by subtracting the vigour score from a total of the tension, depression, anger, fatigue and confusion scores. The mood scores are graphically presented on a standardised profile sheet, one side for males, and one side for females (see Appendix EE). A good profile graphically presents as an iceberg (see Appendix FF). The results of the data from this study are presented graphically for each mood factor and not as an iceberg profile.

McNair et al. (1971) consider a one-week rating period sufficient time to measure typical and persistent mood reactions to current life situations and short enough to assess acute effects of treatment. Although other time spans such as "today", "right now" and "the past three minutes" have also been used successfully (McNair et al., 1971), this study used a one-week rating period as used in a previous study with cardiac patients (Frewen, 1991). The scale used in this study (see Appendix DD) included written instructions for individuals to complete the form for this time period. Longer periods of a month, a year

or a lifetime are criticised for providing too general an assessment and for not depicting specific changes in subjective states (McNair et al., 1971).

The psychometric properties of the POMS have been reviewed and found to be satisfactory. It has face, predictive and construct validity and has proved to be a reliable tool for measuring the mood states of psychiatric outpatients and their responses to various therapeutic approaches, as well as in various experimental studies on normal and non-psychiatric populations (McNair et al., 1971). Reliability indices for the extent to which individual items measure the same factor are near 0,90 or above and test-retest reliabilities are 0,80 and 0,90 (McNair et al., 1971). McNair et al. (1971) attribute the latter to the inherent fluctuating nature of mood states.

#### 5.4.4 The Jenkins Activity Survey (JAS)

The JAS (see Appendix B) has been used extensively overseas (see section 2.2 (b)). It has also been utilised in South African studies (Fullard, 1982; Huysamen, 1994; Spangenberg & Schuda, 1997; Strümpfer, 1993; Van Wyk, 2000). The JAS was administered at the beginning and end of the programme, and at six-week and at 18-month follow-up. This time frame was chosen to assess any possible changes at the end of the programme and again to ascertain whether or not any changes had occurred at six-week and 18-month follow-up. The JAS has confirmed test-retest reliability at a 4- to 6-month interval. The JAS is a multiple-choice questionnaire of 52 items that measures the TABP. It is a self-report questionnaire that takes approximately 20 to 30 minutes to complete and can be administered to individuals or groups of adults who can read at an

eighth grade level or higher. It has confirmed reliability and validity and was initially standardised on 2 588 male participants ranging from 44 to 64 years of age. In subsequent years the JAS student version, a modified form of the JAS, has been administered to a larger variety of populations and cultures. In terms of reliability, the JAS has been tested for internal consistency and test-retest (Jenkins et al., 1979). As outlined in section 2.2 (b), the four scores provided by the JAS measure the global Type behaviour A (21 items), Speed and Impatience (Factors S, 21 items), Job Involvement (Factor J, 24 items), and Hard-Driving and Competitive behaviour (Factor H, 20 items). The four JAS scales show uniform reliability coefficients, ranging from 0,73 to 0,85, while the test-retest coefficients ranged from 0,65 to 0,82.

A raw score is obtained for each scale by summing the weights assigned to each option chosen by the respondent. The scoring system accounts for missing data or inappropriate responses so that individuals need not respond to an item that they feel they cannot answer or which is inappropriate for their situation. The raw score is converted to a standard score and it is from this score that interpretations concerning differences in scores can be made (Jenkins et al., 1979). The standard score is scaled so that the mean score is set at zero with a 10-point standard deviation. Most individuals will obtain standard scores between +30 and -30. A positive score indicates the Type A direction and the qualities denoted by the individual factors. A high positive score indicates a greater degree of Type A behaviour. A negative score indicates the Type B direction and the relative lack of the individual factors. Jenkins et al. (1979) recommend that small changes in an individual's scores on the four scales should not be over-interpreted and

suggest that differences of fewer than five standard score points are not sufficiently significant to be interpreted. The third score is the percentile score. The most Type A person would place in the 99<sup>th</sup> percentile, the most Type B person in the 1<sup>st</sup> percentile and the median person in the 50<sup>th</sup> percentile. A JAS profile should be interpreted in conjunction with the presence of traditional risk factors.

(a) Criticisms of the Jenkins Activity Survey

The applicability of the JAS for individuals over 65 is doubtful. It is recommended for persons who are employed (or who have recently become unemployed) and who are between the ages of 25 and 65. Factor J (Job Involvement) may therefore be inapplicable to students, homemakers, retired persons, or a self-employed worker such as a farmer, writer, or artist. However, since Factor J is not as predictive of CHD as are the other factors (Jenkins et al., 1979), responses to the remainder of the questionnaire will still give a strong indicator of the TABP. Furthermore, as mentioned above, the scoring system accounts for missing data or inappropriate responses. The JAS has not been sufficiently standardised on female participants.

In spite of criticisms, the JAS continues to be utilised worldwide, although considerably fewer studies are currently reported than in the 1980s (Riska, 2000). Matthews (1982) and Roskies (1987) noted that the JAS does not measure the anger-hostility dimension of the TABP as is done by the SI. A scrutiny of the JAS indicates that Question 22 refers to irritation, and Questions 25 and 26 to temper. One could infer the level of anger-hostility from the specific scores on these questions, as well as from the overall scores on Factors

S (Speed and Impatience) and H (Hard-Driving and Competitive). This criticism was accounted for in this study by using the POMS which has an anger-hostility scale.

As pointed out by Matthews (1982), the JAS only measures the Time-Urgent and Hard-Driving and Competitive aspects of the pattern, the Time-Urgent component being the one that has been linked with CHD (Bracke & Thoresen, 1996). Matthews (1982) also criticises the JAS for reflecting predominantly white-collar, upwardly mobile values. However, because Type As are usually from this group, it measures what and whom it sets out to measure. Other comments about the JAS focus on its predictive value for CHD. The participants in the current study were already CHD sufferers so the predictive value of the JAS is of less importance here. Of significance for this study is that the JAS has construct validity so that problematic behavioural patterns, in conjunction with an individual's traditional risk factor history, can be identified, measured and re-measured to assess the level of change as a result of the intervention.

A potential problem in using the JAS is the tendency for MI survivors to underrate their TABP, particularly immediately after an MI (Jenkins, 1979). Jenkins (1979) found that some Type As present with a Type B veneer while ill or in the immediate phase after their MIs. In spite of the Type B veneer, some of the pattern persists in terms of how demanding these individuals are in hospital, as well as how they become sexually provocative. Because the JAS cannot account for denial and an individual's distorted perception of his or her behaviour, this study incorporated homework exercises and

feedback sheets that were designed to pick up any discrepancies in individuals' perceptions of their behaviour.

#### 5.4.5 The Spouse Rating Scale (SRS)

The design of CHD studies has been criticised for utilising mainly self-report methods (Yarnold & Bryant, 1988). Condon (1987) suggested that the female spouse of the CHD individual is acutely aware of the neurotic dimensions of her Type A husband's behaviour, as well as his abnormally high level of emotional arousal. The use of the spouse as a source of reporting on participants' behaviour would therefore provide important qualitative data, as well as address the criticism of other studies about the use of only self-report methods. A Spouse Rating Scale (SRS) (see Appendix GG) was therefore devised for this study.

Questions for the SRS were adapted from the JAS (Jenkins et al., 1979), a health behaviour assessment scale used in previous research with cardiac patients (Frewen, 1991), as well as from a review of the literature on the TABP. The SRS assessed the observable TABP from the perspective of the spouse and comprised 72 questions under five general categories. These categories were Speed-Impatience (Factor S), Hard-Driving and Competitive (Factor H), Job Involvement (Factor J), and Emotions and Moods (designated as Factor E) as evident in general behaviour and specific health behaviours. A breakdown of the questions in each category can be found in Appendix HH. A simple three-point rating scale was used (never, sometimes, and always). The scoring system appears in Appendix II.

#### 5.4.6 Weekly feedback sheets

Feedback sheets with a five-point rating scale (4 the most and 0 the least) were designed for each of the 12 sessions (Freeman, Pretzer, Fleming & Simon, 1990) (see Appendix JJ for an example). The information obtained from these sheets was summarised in a table for each weekly session so that the data could be examined and adjustments made if necessary for the following session (see Appendices KK to VV). The weekly feedback sheets provided information on how participants experienced, understood and related to the programme content, the group process, and the group facilitator's participation week by week, and were invaluable for assisting in the ongoing design and implementation of the intervention model. Not only was the degree to which individuals had understood concepts monitored, but the sheets also offered a blank space for additional comments and snippets of personal information. In this way individuals had a means of communicating on a somewhat personal level with the researcher. After the second session, the rating scale format for the section which rated the group leader's participation (the last part of the feedback sheet) was altered as participants were confused by the negative questions. They also were not responding to all the questions and had to be followed up for personal feedback. It was decided to eradicate this problem by maintaining the same format throughout the feedback sheet.

#### 5.4.7 Research interviews

Research interviews were conducted mid-way between weeks 5 and 7 and one week after completion of the 12-week programme (see Appendix WW for the Research Interview Guide Sheets). A structured interview guide focused on general and specific attitudes

and responses to the programme, as well as on changes in motivation and behaviour. The researcher avoided the use of leading questions and adopted the standardised open-ended interview method to assess participants' feelings and opinions about the programme in general (Patton, 1990). Interviews were tape-recorded and then transcribed. These interviews provided an opportune moment for the researcher to obtain in-depth individual feedback about the individuals' overall responses to the intervention and the questions asked in the interviews were more than adequate for monitoring the progress of the programme. Some participants used the opportunity to talk about themselves and to create deeper levels of trust with the researcher.

#### 5.4.8 Homework and drill sheets

Written material was obtained from participants in the form of weekly homework assignments and drill sheets. The data obtained is discussed in Chapter 6. These methods of data collection were invaluable for assessing individuals' progress and for concretising the concepts presented in the sessions. However, the sheets were difficult for participants to complete without given examples. This problem was addressed by adding in examples and individuals were then able to complete the exercises.

#### 5.4.9 Group session videotapes

All the group sessions were videotaped and then transcribed. The videotapes of the sessions and the transcripts of these provided a very helpful back-up system when evaluating the intervention model. The researcher was able to re-watch all the sessions in order to refresh her memory of the content and the dynamics in each group; in addition,

the transcripts of the sessions were easily accessible for analysing the verbal exchanges in the sessions. These could be re-read at ease without having to go back to the actual videotapes. Of importance on a practical level is the need to check equipment at each session and to always have a spare videotape on hand. The researcher omitted to check that the camera was in focus and Sessions 6 to 12 were therefore not as clear as the first six sessions. However, the audio quality was good and transcripts could still be made.

#### 5.4.10 General

Notes were made during each session on practical aspects such as the timing and responses of participants to specific exercises. All participants were given a file with plastic covers so that they could build up a working manual of the lecture notes and homework exercises.

#### 5.4.11 Six-week and eighteen-month follow-up

All individuals were seen at six-week follow-up (see Appendix XX for interview guide sheet). Open-ended questions were used to obtain information about how they had coped without the programme, what they felt had made the most impression on them from the programme, as well as general feelings about the programme. At 18-month follow-up only the individuals whose data was written up in the case narratives were seen individually by the researcher. Others were contacted telephonically and the researcher asked if she could post them two questionnaires for completion. One of these questionnaires enquired about health and depression, while the other rated how much information was remembered from the programme (see Appendix YY). All of the

compliers returned the forms to the researcher, while two of the three non-compliers did not. The third non-complier was seen in two individual follow-up interviews with the researcher and this information is reported in the case narrative (see section 6.3).

#### 5.4.12 Individual psychotherapy sessions

At 18-month follow-up, the researcher realised that two of the participants that she was writing up in the case narratives were struggling with depression and anxiety; she therefore felt it was ethical to offer them six (see section 6.1) to eight (see section 6.2) individual psychotherapy sessions. The third case study participant attended two individual sessions with the researcher in which she discussed his scores and elicited feedback about his experience of the intervention. The individual sessions lasted approximately one hour each and were conducted at the researcher's private practice. Process notes were written up at the end of each session and the major themes were then summarised. These are described in Chapter 6.

#### 5.5 Data reduction

The whole database included the following:

- The tape-recorded and then transcribed assessment interview, as well as the researcher's handwritten notes from the interview.
- Videotapes of the 12-week group intervention as well as transcripts of these sessions.
- Information obtained from the weekly feedback sheets and summarised in tables.
- Information obtained from the homework sheets.

- Information obtained from the taped research interviews.
- Repeated measures of the JAS, the POMS and the SRS.
- Information gathered at 18-month follow-up by means of questionnaires for all participants.
- Information gathered at 18-month follow-up in individual sessions for the individuals whose material was written up as case narratives.

The three case narratives were selected as follows: AvR and LR remained on the intervention to the end, and EN, a non-complier, dropped out of the intervention after Session 4. EN's data was selected because his case provided information that could contribute towards the understanding of non-compliers. AvR's data was presented in a case study because she was the only female who remained on the programme to the end. Two male MI survivors remained on the programme to completion. One of these two individuals was a Type B whose profile improved throughout the intervention. The other individual, LR, was a Type A. His material was included as a case study because his profile worsened as a result of the intervention and because of the richness of the presenting data. The other participants who remained on the programme had experienced MIs and undergone CABG surgeries, or had just undergone CABG surgery. Their data is commented on in Chapter 7. The medical histories and risk factor profiles for AvR, LR and EN were typical for individuals presenting with CHD (Cotran et al., 1989; Grech, 2003a). This similarity therefore provided a consistent basis from which to compare the case study data.

The case narratives were constructed to qualitatively evaluate and present data on the effectiveness of the intervention. They consist of a number of parts, namely, a case history, a case formulation prior to treatment, a treatment narrative and a reformulation of the case material based on the information gathered during and after the intervention. The researcher first formulated the case history and the medical background from the information obtained in the assessment interview. Any missing or ambiguous information was discussed with the individual concerned and then added to the existing information. The importance of a thorough case formulation was highlighted in this study as the information obtained from the assessment interview allowed the researcher to track individuals' progress in the study, while noting those areas that proved difficult. In order to construct the treatment narrative, the researcher watched the videotapes of the 12 sessions several times in order to examine the material. The transcripts of each session were also invaluable back-ups for this part of the data reduction. For each session, the homework sheets and the tables summarising the feedback sheets were examined and the data included in the case narrative. Once graphically presented, the scores from the JAS, POMS and SRS were easily interpreted and this data was then included in the case narrative.

Information in respect of childhood incidents and relationships with their parents and how these had impacted on their lives as adults was invaluable for structuring the input in the individual sessions. When all the information was collated from the various sources of data, the researcher was able to reformulate the case material. Throughout the process of writing up the cases, relevant case material and data that emerged were added to the

case narratives. Draft copies of the case material were then given to the individuals concerned to read and any alterations made accordingly. This occurred several times until the researcher and participant were satisfied that all the information had been authentically presented.

## CHAPTER SIX

### Results: Case Narratives

#### 6.1. Case narrative one: AvR

##### (a) Initial assessment, July 2002

AvR presented as a large-framed, well-groomed 63-year-old female. Although outspoken and very approachable, it soon became evident that she was not accustomed to speaking about her feelings or having someone show an interest in her psychological world. Although she was able to relay every event and experience as a story with intricate detail, she was unable to express how she felt about these incidents. It was therefore a challenge to obtain as much relevant information as possible without stifling her exuberant exchange. As the assessment continued, it became evident that she was depressed and anxious. She also had low self-esteem and expressed this in the interview in her fear of saying the wrong thing and in her need to please. She verbalised her concern about her unconstrained temper saying that while she realised that shouting and being angry at even minor occurrences had not benefited her health, she felt helpless to change this behaviour. Because AvR joined the programme four years after her MIs, it was difficult to assess retrospectively what her psychological reactions had been immediately after the events. However, four years after her attacks, she still felt extremely angry and viewed them as a failure on her part. This negatively affected her ability to comply with the recommended lifestyle changes pertaining to her poor eating habits and her lack of exercise.

(b) Background information

AvR was an only child born to an Afrikaner mother and an English-speaking father on 25 December 1939, three months after the start of World War II. In 1941 her father signed up as a soldier and went to fight in Europe. When she was only two-and-a-half years of age, he was proclaimed missing in action and for three years her family believed that he had either been captured in Italy as a prisoner of war or had died. Unbeknown to them he had been hidden from the enemy by a local family. During his absence AvR, her mother, her aunts and her cousins went to live with her maternal grandparents on their farm. Her extended family therefore played an important role in her formative years.

Her family were politically minded and believed in justice and fairness regardless of skin colour. Although all her mother's family were Afrikaners, they never endorsed the Nationalist Government ruling in South Africa at the time. AvR described all of her immediate and extended family members as extremely strong characters, particularly the women. When released from a British concentration camp at the close of the Anglo-Boer War in 1902, her maternal grandmother started farming on her own. Her paternal grandmother was equally strong-minded and had annually gathered up her 13 children and journeyed inland by ox-wagon to avoid the winter months at the coast. These matriarchs married men who were of similar character and she described the arguments between the males of her family as very intense. The style of communication in her family was patently volatile. Members expressed what they thought, and then forgot about the issue, leaving little opportunity for communication that explored and processed feelings.

During the time that she lived on her paternal grandparents' farm she was very lonely in spite of the number of people around her. Although her grandfather was an important substitute father figure for her, AvR still had to devise her own methods of dealing with her loneliness and feelings about missing her father. She learnt to read at the age of four and would often sit under an old tree lost in her books or in her world of make-believe. Because the adults did not talk to the children about what was going on, she found a hiding place in a huge salt crate where she would lie and eavesdrop. When she enquired about what she had heard, she was brushed aside and told not to worry. As a result, she often added her own, invariably incorrect, interpretations. She therefore attempted to make sense of her experiences and was entirely unsupported in this endeavour. She recalled how she often cried and talked to the sheep when she missed her father. As a little girl AvR was therefore overwhelmed, confused and lonely and had no one to help make her feelings and experiences manageable and understandable. The return of her father from the war in 1945, when she was six years old, was a momentous occasion for them all and the emotion with which she relayed waiting for her father to get off the train was palpable.

She spoke of her father as a caring, compassionate and affectionate man and regarded him as her "best friend". When she was in her 30s he died at the age of 64. She has remained angry because of how he died, saying that it was an unnecessary death that was caused by inefficiency and delay by the hospital in getting him into the operating theatre. He lay on a hospital trolley from 5.30 a.m. because the government hospital had not wanted to deal with a patient who had a private medical aid. He was then moved around to various hospitals. By the time they finally operated on him it was too late. His death

left her feeling raw and heartsore and she has never really recovered from the loss. He is missed by all, including AvR's husband and their children.

Her mother was so helpless after AvR father's death, because he had spoilt her so much, that she did not know how to pay a telephone bill. AvR described her mother as a very beautiful, self-centred and class-conscious woman, who, AvR felt, remained selfish until she died. AvR recalled with anger how her mother delayed them getting to the train station to meet her father on his return from war because she could not get dressed on time. For AvR this was just another example of her mother's "flagrant selfishness and self-indulgence". AvR's mother was a very cool person who did not facilitate a relationship of warmth with AvR. Instead she lavished AvR with beautiful clothes, good schooling and high society living. AvR therefore had all the material trappings of a good background but lacked emotional validation. As a result, her feeling world became increasingly split off and unprocessed. This invariably added to her loneliness and created insecurities that formed the basis of her personality.

As a way of compensating for her insecurities, AvR became a determined, strong-willed individual who matriculated at the age of 15. She also rebelled against her mother's class-conscious snobbery by becoming cheeky and outspoken. Two events in her early 20s expressed this rebelliousness. One was imprisonment for five days in 1959 for anti-government activities. She was a student at the time and they were picketing against the then apartheid regime when they were arrested. The second was her marriage in 1963. Because AvR was pregnant at the time of her marriage she did not tell her parents because she wanted to avoid a scandal. She also knew that her mother would turn the

event into a “huge affair” and she had not wanted this. To avoid this she did not invite her parents to the wedding, only telling them two nights after the event that they had married. Her husband is also the antithesis of herself and her family’s expectations of her. AvR was a university-educated teacher, politically left and English. Her husband was a quiet Afrikaner who had trained as an electrical engineer at a technical college. He worked on cruise liners and this required that he spend a large amount of time at sea. In her parents’ eyes he was “an uneducated seaman” and was not the calibre of person they had envisaged for AvR.

AvR was extremely attracted to her husband’s physical appearance, describing him as “so damned sexy” and herself as looking “damned good in a bikini”. Although different in many ways, they were an intensely passionate couple and she describes their sex-life as “so fucking good”. His rebellion in terms of his manner of dress, leather jacket, long hair and motorbike was very appealing to AvR. He did not easily talk about his emotions or daily experiences, tending to be withdrawn and introverted. Besides being pregnant at the time of their marriage, she said that she made the decision to marry him because he was very caring, loyal and honest, probably in some ways like her father. Although her husband’s quiet disposition offered some balance to her personality, as well as to that of her loud, volatile family, it is evident that AvR unconsciously elected to marry a man who would let her take charge.

Because they were so different in terms of personality, this resulted in a difficult marriage that has lasted for 40 years. The early years of their marriage were particularly difficult when they moved to Johannesburg to be close to his parents. Her in-laws never accepted

AvR, seeing her as the “evil incarnate” because she was outspoken, liberal, educated and English. Their cold, snide indifference was very unpleasant and AvR could do no right in their eyes. In some ways she had married into a family that applied equally unrealistic standards and snobbery, as did her mother.

She dealt with the frustrations in her marriage by taking responsibility for all decision-making and household responsibilities and by focusing her energy on her relationship with their son and daughter. Their son, now 40 years of age, is divorced with two children. Their daughter is 39 years of age and has recently had a baby after suffering fertility problems for many years. AvR has a co-dependent, enmeshed relationship with her children and takes her parenting and grandparenting roles extremely seriously, to the point of being a martyr. For example, she will not allow herself to stop off at a restaurant and buy a cup of coffee, seeing this as wasteful. She would, however, gladly buy groceries for her children even though they are self-supporting adults with their own families. She says she would go without in order to give to her children because “that is what a mother is supposed to do” and recognises that this is a compensation for what her relationship with her mother had lacked. A source of great frustration and pain is how neglectful her son’s ex-wife is of AvR’s grandchildren. This often makes her feel very angry, out of control and helpless because she cannot fix the situation.

One area in her life where she did feel confident was in her work as a primary school teacher. She taught for 32 years and was dedicated and devoted to her work, describing herself as an excellent teacher. She felt that she was very much loved by her pupils and their parents. Her relationship with her colleagues was not of the same ilk, however, and

she portrayed these as strained because of her outspokenness. Her colleagues described her as a “cynic”, “not a team player” and as someone who “did not suffer fools gladly”.

Besides concentrating her energy on her children and on her career, AvR smoked and overate as ways of managing her stress. Although she started to use transcendental meditation in her 30s, she did not continue to do so. During the course of her life, several incidents occurred that left her feeling very bitter and angry. She felt these were all predisposing factors to her MIs. The first was in 1987, when their son was admitted to a psychiatric ward for refusing to sign up in the local defence force. After a month, he was discharged but the experience had been traumatic for the family. The second was a series of events from 1993 that created financial difficulties for the family. Her husband used an untrustworthy builder, of whom she did not approve, to build their dream home in an upmarket suburb. This person absconded with their money, leaving their house unfinished. At the same time, her husband was retrenched twice. They then decided to buy their own business in 1994, a time when South Africa was emerging from years of apartheid government and the first multi-racial elections were held, with Nelson Mandela being elected for Presidency. The economic climate at the time was very precarious, and as a result the business was not successful and eventually collapsed. All of the family's savings were lost to these unfortunate incidents and they were left financially destitute. As a result of these events they had to sell the unfinished house and move into a less upmarket suburb and much smaller house.

They had never been flush with money, as they both did not earn extremely well, but they had lived a good lifestyle. The loss of their financial security and home became a turning

point in their lives and although these incidents occurred four years prior to AvR's MIs, on a daily basis she faced her feelings of frustration about their financial problems. She was unable to process her feelings about the losses, and the strain of these experiences continued to affect her, resulting in an accumulation of pent-up emotion.

In addition to these accumulative events, she experienced a particularly trying year at school and recalls feeling very tired. With regard to the time immediately before her heart attacks, two events happened at home that she felt contributed to her MI. The first occurred four days prior to her first MI when she saw her grandchild being touched inappropriately by the maternal grandfather. This made her incredibly angry but in spite of her usual outspokenness, she did nothing about this occurrence. She ascribes this to being physically and emotionally worn down by her life experiences. In addition, her atherosclerosis had probably worsened, as indicated by the tiredness, a common pre-MI symptom in someone presenting with the advanced stages of CHD. The second was two days prior to her MI when she overheard an intimate conversation between her daughter-in-law and an ex-boyfriend that suggested that they were romantically involved. These instances left her feeling completely out of control and helpless, an entirely unnerving experience for her.

She remembered in retrospect that she had experienced severe angina pains two weeks before her first MI, but had ignored these, thinking that she did not want to be a hypochondriac like her mother. On the day of her first MI in December 1998, she was working in her classroom when one of the parents remarked that she did not look well. AvR asked her not to get help because she did not have any medical aid. In the midst of a

terrifying and painful experience she was still aware of their financial difficulties, indicating her fear of being out of control and of placing financial demands on her family. By the time she accepted medical care she was semi-conscious and was rushed to hospital where it was established that she was having an MI. Her entire medical bill for a private clinic was paid for by donations from the parents of her pupils. This generosity created envy and jealousy among the other staff members at the school and the principal wondered if she had asked for money. One month later she suffered a second MI. She continued to work for a further 18 months at the school but thereafter was retrenched from her teaching post. The replacement teacher eventually became a permanent member of staff. This infuriated her because the parents had complained about the inadequacies of this teacher. In spite of this, the woman was still employed full-time to replace AvR. AvR was left feeling bitter and angry, as no recognition seemed to have been forthcoming for all her years of loyal dedication to the school. This series of life events formed the precipitating factors to her MIs.

(c) Medical history and coronary heart disease risk factors

At the age of 59 (four years before the start of the programme), AvR suffered two MIs within a month of each other. At the time of the second MI, she underwent three angioplasty procedures, a fact that she omitted to report at the initial interview and which was revealed in the course of the programme. It is unusual for a patient to forget about this kind of procedure. She also had no idea in which arteries the procedures were carried out. These are examples of how she denies and minimises her experiences and feelings in order to cope, in this instance, with the seriousness of her CHD.

Her genetic predisposition for CHD comes from her maternal grandparents, both of whom died of heart attacks. Her primary risk factors were a cholesterol level of 6,7 (for which she takes no medication) and hypertension (for which she takes Adalat, Pharmapress and Atenalol, the last being a beta-blocker to ensure a low heart rate). She also smoked cigarettes from the age of 15 until 59. When she had her first MI she was smoking 30 cigarettes a day but stopped smoking immediately thereafter. Her secondary risk factors were excess weight of 84 kg with a BMI of 30 and a sedentary lifestyle. Her weight problem had started during her pregnancies due to incompatible blood types of her and her husband and she became very ill and gained about 20 kg. Although she has attempted to diet throughout the years, she has never been able to successfully regain a healthy weight and has simply continued to gain weight over the years. In spite of an awareness of being at risk of developing CHD because of her genetic history, she avoided doctors as she did not want to be a hypochondriac like her mother. Since her MIs she has suffered from heart arrhythmia, constant unstable angina (for the latter she takes Isordyl) and further weight gain of 20 kg (a BMI of 35). She also developed arthritis in her hips and hands three months after she stopped teaching and on reflection believed that it was a manifestation of her anger at her helplessness to change the situation. While she was insightful concerning the risk factors that played a role in her CHD, she felt unable to successfully manage them and to thereby decrease the health risk.

(d) Formulation

In her 20s AvR was an attractive, passionate woman who had a strong sense of what she wanted out of life. What she set her mind to, she achieved; what she believed in, she spoke out about vociferously. By the age of 55 she had attained most of life's milestones;

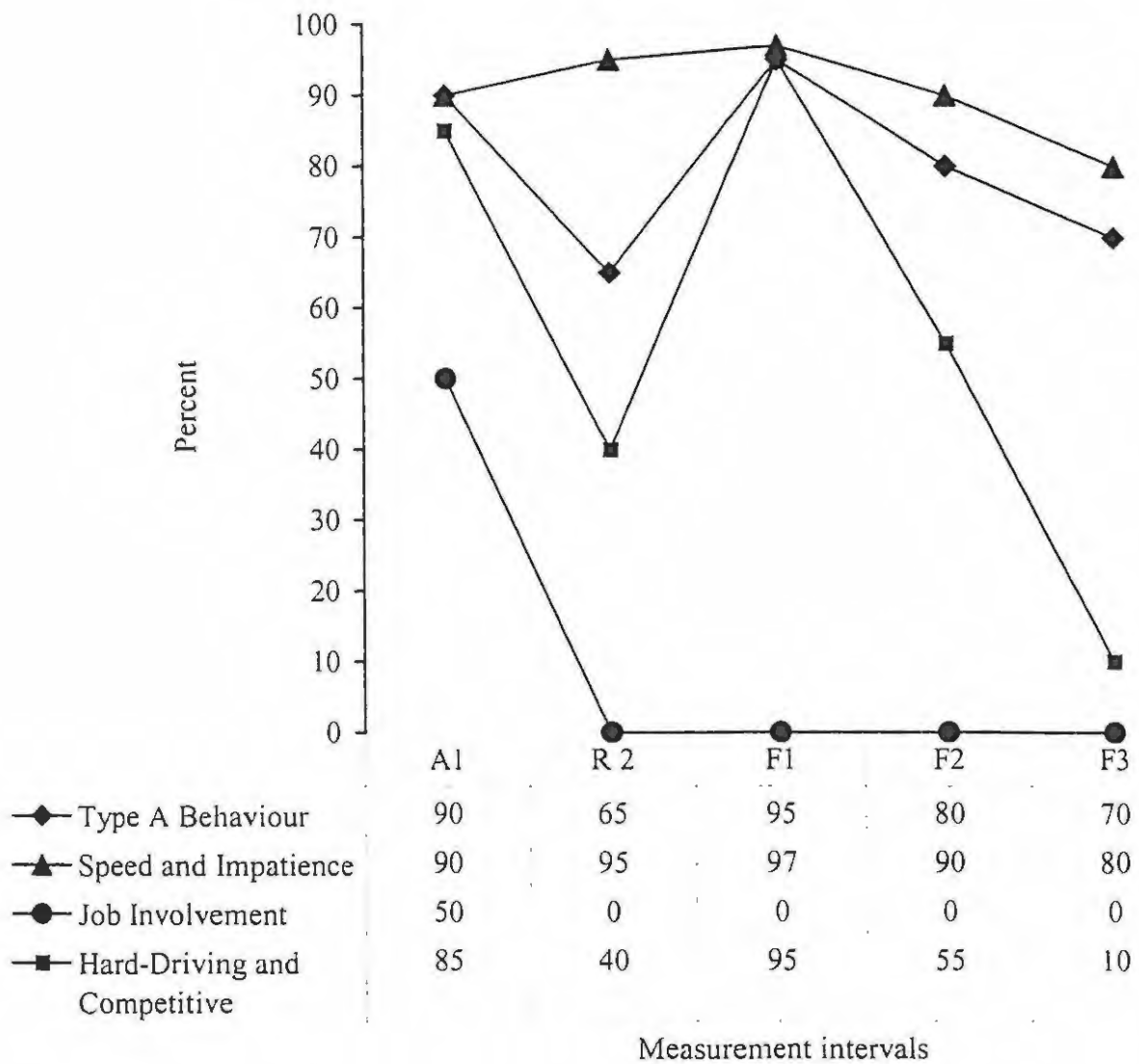
a family, grandchildren, a home that she was proud of and job fulfilment. However, she never really felt at peace and experienced continual frustration about her life in general and about her marriage. Slow, continual weight gain from the time of the birth of her children added to her frustration. For most of her life she managed to compensate for any feelings of insecurity and low self-esteem about herself and her life experiences by achieving and attempting to sort out whatever problems came her way. However, the loss of their home and financial security when she was in her mid-50s was a major life event, the devastating effects of which she could not deal with emotionally, and from which she never fully recovered. When she had her first heart attack four years later at the age of 59, she was overweight, depressed, anxious and angry. At this point overwhelming feelings of helplessness surfaced about her health, her retrenchment from work and consequently her inability to contribute financially. Along with the life-threatening experience of her heart attacks, the constant unstable angina and her concerns about their financial situation, her feelings of low self-esteem and insecurities were evident and added to the feelings of helplessness and vulnerability about her health.

AvR's JAS scores (see Figure 5) reflected an extreme Type A profile. She scored 90% on the global Type A component of the JAS, 85% for the Hard-Driving and Competitive component, and 90% for the Speed and Impatience component. As she no longer worked, she did not complete the job involvement section but indicated that she had always been overly involved with her work. As is typical of Type As, when thwarted in her endeavours, she became angry and irritable. She was a perfectionist and set extremely high standards for herself and those around her, undertaking her roles as mother and teacher with dedication and commitment. She was impatient with fools,

Figure 5

Jenkins Activity Survey scores for AVR

Key to x axis  
 A1 = Pre-programme assessment interview  
 R2 = Second research interview at one-week follow-up after the programme  
 F1 = Six-week follow-up interview  
 F2 = Eighteen-month follow-up interview  
 F3 = Follow-up after individual sessions with the researcher



completed tasks with haste (usually multi-tasking), spoke rapidly and hurried the speech of others. Her scores on the JAS concurred with her spouse's rating of her behaviour on the SRS (see Figure 6). With these very high JAS scores in combination with her risk factors, she was indeed an extremely high-risk case for CHD.

Her TABP was a style of coping that offered control and perfectionism and became an expression of how she took charge of her inner world by excelling in the external world. Much of her life story is testimony to how she has attempted to minimise and deny her insecurities and feelings by compensating with the TABP. Her determination to overcome her deep-seated feelings of low self-worth resulted in a self-involved pattern of compensation and she consistently attempted to control not only her own behaviour, but also that of others. Her excessive talking was a way of controlling her anxiety and situations around her. As a result, she dominated conversations and those around her. Her need for control was evident in her relationships. In her teaching career, it was apparent that she was able to relate more easily to children than to adults and got along well with the parents of her pupils, probably because she was in a position of power as the teacher.

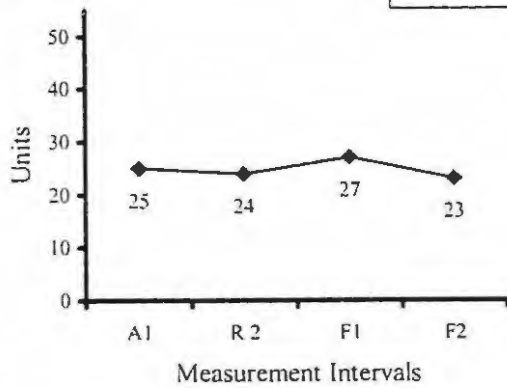
Up until the time of her first MI, she had managed to control feelings of low self-esteem through the positive mirroring that she received from her pupils and their parents, as well as from her own children. In respect of her marriage, although she resented being the powerhouse, it was a way of staying in control and helped her to deal with her

Figure 6

Spouse Rating Scales for AvR

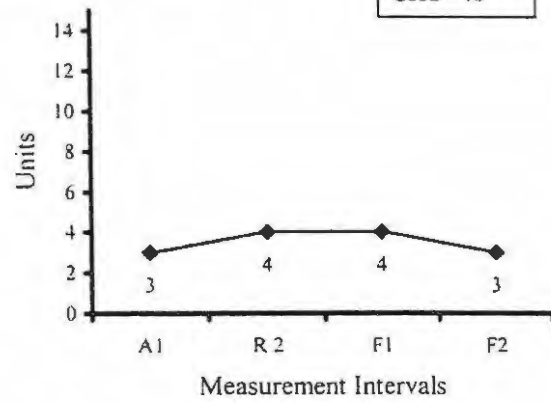
Speed and Impatience

Bad = 0  
Mod. = 26  
Good = 52



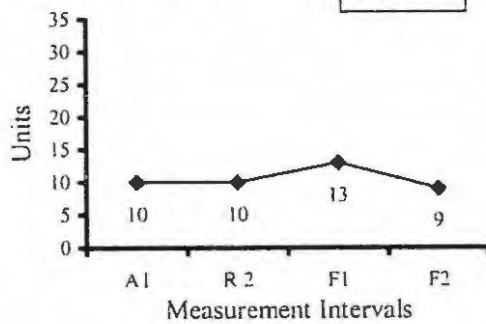
Job Involvement

Bad = 0  
Mod. = 5  
Good = 10



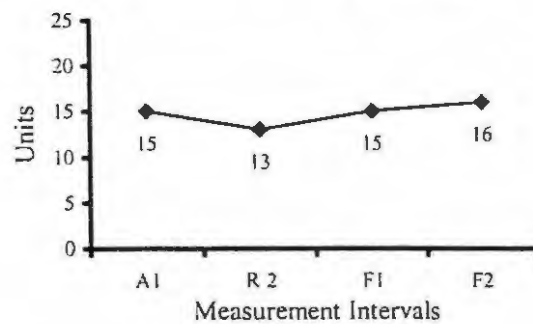
Hard Driving and Competitive

Bad = 0  
Mod. = 17  
Good = 34



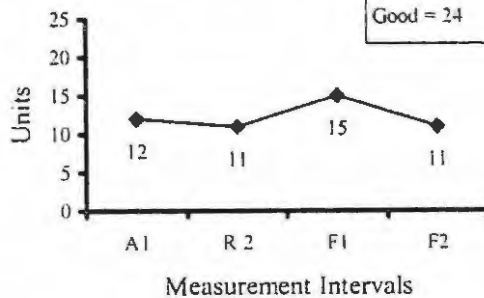
Health Behaviour

Bad = 0  
Mod. = 12  
Good = 24



Emotions

Bad = 0  
Mod. = 12  
Good = 24



Key to x axis  
A1: Pre-programme assessment interview  
R2: First research interview mid-programme  
F1: Six-week follow-up interview  
F2: Eighteen-month follow-up interview

frustrations about her husband and their relationship. The fact that she resented having to take control indicates a deep wish to be taken care of. However, she had to take control, otherwise her life would have been chaotic and she set herself up by marrying a man who would let her take control. In this way she did not have to face her fear of being dependent and reliant on someone else. It is only since her heart attacks and the inevitable vulnerability experienced by MI survivors, that she has come to realise how much she and her husband care for each other.

The root cause of AvR's feelings of insecurity and low self-esteem can be attributed to the lack of maternal attunement and mirroring of her gestures and experiences by a mother who was very self-involved and narcissistic. Without these vital components for a "good-enough mothering" experience, AvR was unable to verbalise how she felt about her life experiences, because she did not know how to, and because feelings were not given an audience in the relationship with her mother. Without the know-how and psychological tools for processing emotions that should have evolved out of her mothering experience, she was unable to tolerate and manage not only her earliest emotional experiences, but also the accumulated feelings about her daily life experiences. This left her feeling inadequate and insecure. She found a way of managing her experiences by denying and minimising her feelings. Food and cigarettes also became a way of dealing with stress. In addition, acting out, as opposed to being able to tolerate and process her feelings and then behave rationally, was a way for her to release her anger. However, even though she had denied and minimised her feelings, she was still affected by them on a daily basis. This was evident in how she could not process events that had happened many years prior to her MIs, but which she felt still affected her on a

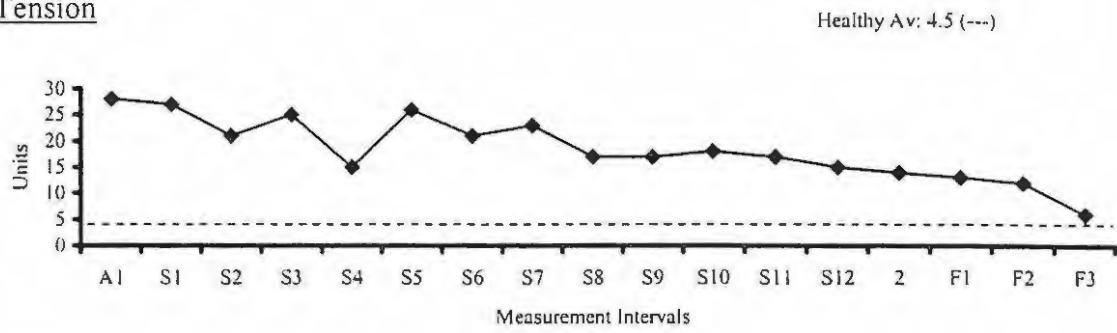
daily basis. She herself posited these as major trigger factors for the heart attacks. After her first MI and the subsequent retrenchment from her work, her feelings of low self-esteem and insecurity surfaced with full effect. This then was AvR's psychological state when she joined the programme four years after her MIs. By this time her levels of anger, depression and anxiety (see POMS scores, Figures 7 and 8) were very high and she felt extremely disappointed with herself.

(e) Session 1: Introduction to one another, the programme, relaxation, how the heart works and coronary heart disease risk factors. Group discussion on heart attack experience and prescribed medication

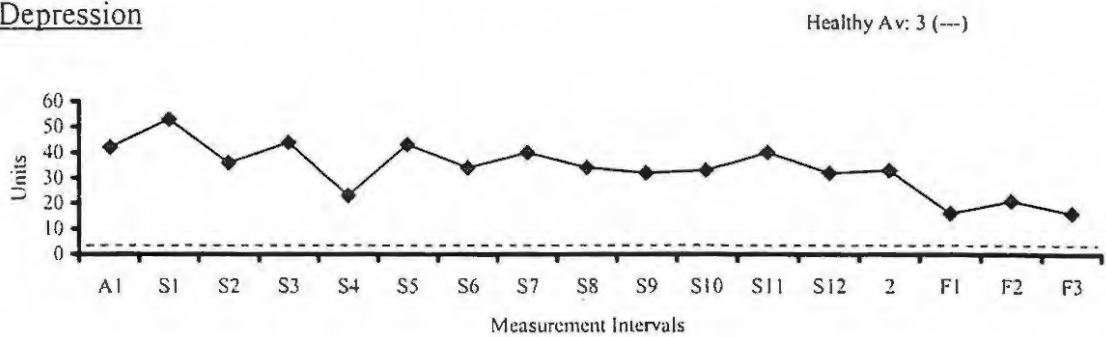
AvR responded well to this introductory session and indicated that the most outstanding aspect of the session was the feeling of ease with which she could talk about her heart attacks, as she usually did not discuss these with others. It was during this session that she shared that she had undergone three angioplasty procedures. It seemed that the group discussion enabled her to consciously acknowledge that she had undergone PTCA and gave her a novel opportunity to talk about her MI experiences with others who too had experienced something similar. This was very helpful for her. She indicated in the session that she would rather have CHD than cancer, because with the former, there were only a couple of hours of pain and once the pain was over, "it was gone, finished". While the group echoed her feelings, the reality is that with MI, once the pain is gone, CHD is far from over. This type of thinking is indicative of denying reality in order to cope with the knowledge that one has CHD.

**Figure 7**  
**POMS scores for AvR**

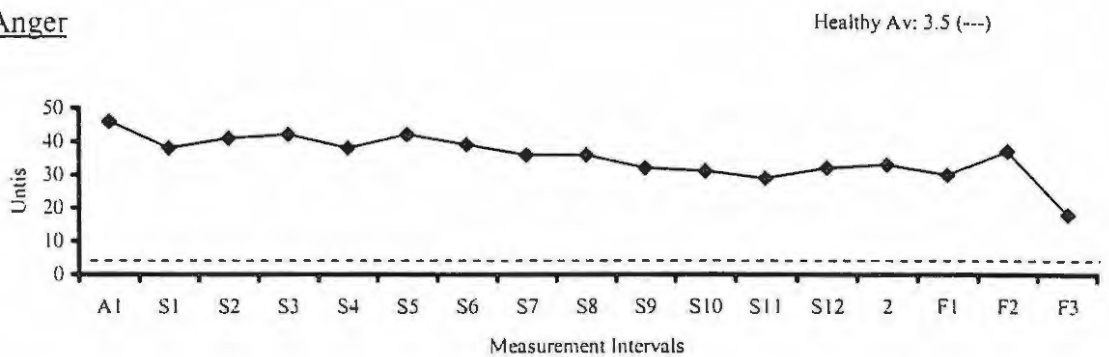
Tension



Depression



Anger

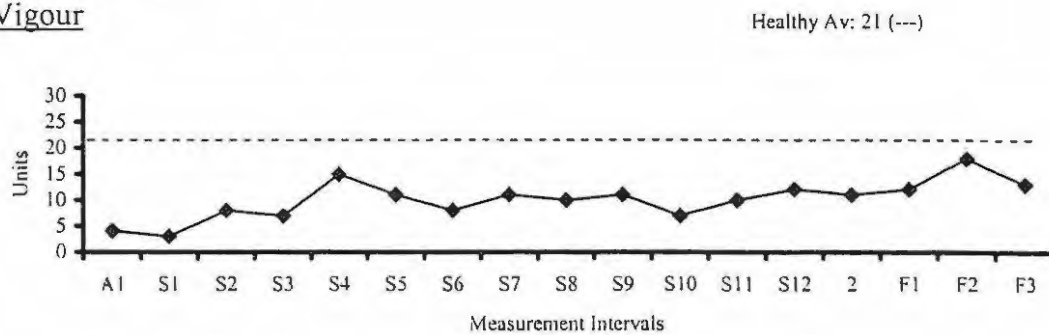


Key to interval scale:

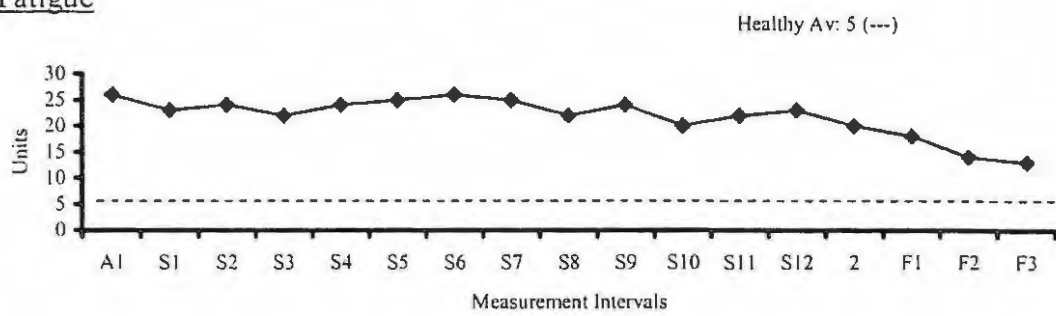
A1: Pre programme assessment interview	F1: Six-week follow-up interview
S1, S2 etc: Weekly group sessions	F2: Eighteen-month follow-up interview
R2: Research interview (R1 between S5 and S6, no scores)	F3: Follow-up after individual sessions with the researcher

**Figure 8**  
**POMS scores for AvR**

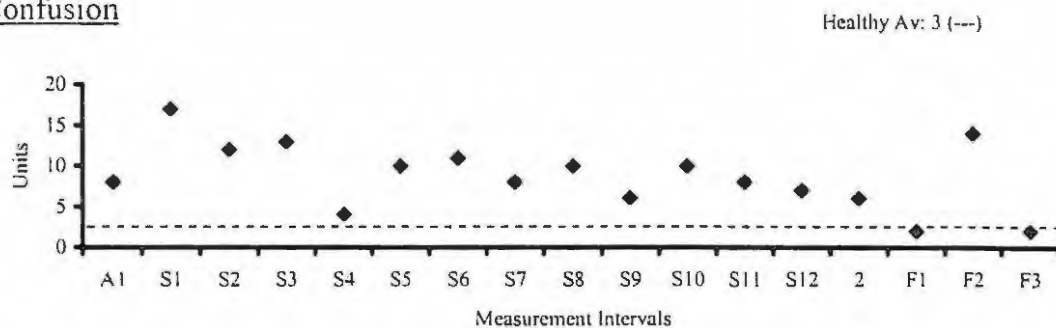
Vigour



Fatigue



Confusion



Key to interval scale:

A1: Pre programme assessment interview	F1: Six-week follow-up interview
S1, S2 etc: Weekly group sessions	F2: Eighteen-month follow-up interview
R2: Research interview (R1 between S5 and S6, no scores)	F3: Follow-up after individual sessions with the researcher

AvR was involved in the group interaction, at one point noting with a lot of embarrassment, that she was the one who spoke the most. She expressed her vulnerability and anger at not being able to do the things that she could do before her MI. Added to this, her family's over-protectiveness since her illness made her feel quite resentful. On the one hand they constantly checked up on her, on the other they expected her to do the same things for them as she did before, giving mixed messages about their feelings about her MI. Since no one in her family spoke about their feelings, she often felt very frustrated and lonely. The over-protectiveness by family members was considered by the participants to be out of fear for their loved-one's health. While family members were seen to be grappling with a fear of the person's possible death, the MI survivor grappled with a fear of how to live without creating further ill-health.

In the feedback sheet (see Appendix KK) she indicated that while she was still uncertain about some of the medication she was taking, she felt that this knowledge was only of limited importance to her (rated as a 2). She was therefore prepared to take whatever was prescribed without a full understanding of what the medication was for. She exhibited a similar type of behaviour with regard to her not asking about her cholesterol level and in which arteries the PTCA procedures had been carried out. This behaviour is indicative of a sense of helplessness, that is, the patient goes along with whatever the doctor prescribes without a feeling of control or responsibility for the situation. This does not facilitate a sense of internal locus of control concerning a health problem.

Her feedback about the session was positive (rated as a 4 for very satisfied) and she felt that the concepts were very clearly presented (rated as a 4) (see Appendix KK). She felt

very comfortable with the group experience although she expressed some reservation about sharing on a deeper level. While she was aware of speaking a lot, she acknowledged that she did this on a level that would not reveal vulnerability. She indicated that although she was familiar with the practice of transcendental meditation and followed the relaxation exercise with ease, she was only able to relax a little. As soon as she started to relax she switched off completely to the group leader's voice. It is interesting that in spite of switching off to the group leader's voice, she indicated that she only relaxed a little (rated as a 2) (see Appendix KK). If she did not hear the group leader's voice because she was so relaxed then she would have derived more benefit from the exercise. It is therefore unclear if this was a way of blocking out environmental stimuli.

In her feedback form she asked for further information about the importance of diet, exercise and weight for CHD. In the assessment interview she had indicated an awareness of the importance of these CHD risk factors and the group leader therefore saw this question as a request for information. The group leader briefly addressed the importance of these risk factors at the beginning of the next session and indicated the importance of the content of the programme for providing knowledge and insight that could assist in managing these risk factors. By the end of this first session AvR's anxiety and lack of control about her health problem were evident.

(f) Sessions 2 to 4: The Type A behaviour pattern

While AvR understood and identified with the concept of the TABP that was presented in Session 2 (rated as a 4, see Appendix LL), she was uncertain that she could change her

pattern of behaviour. In Session 3, she was very receptive to the information on stress and the stress response and rated the clarity of presentation, understanding and identification with information as a 4 on the feedback sheet (see Appendix MM). During the group session she said how surprised she was that the stress response could be triggered so easily, particularly with coffee intake. The group experience in this session was difficult for her because she again became the centre of attention when she used a stressor of her own to initiate the group discussion. She expressed her anger at her daughter-in-law for neglecting to take proper care of her grandchildren. The group leader asked AvR if it was possible that she felt helpless and out of control to change the situation. By the time she had acknowledged that this might be so and was thus feeling less agitated about the issue, some of the group members had become advice-givers on how to solve the situation.

She became increasingly uncomfortable when some participants were unable to let go of her example because it so closely matched their own experiences. At the end of the discussion she was able to put into words her broader concern which was how to stop reacting to situations. In her feedback form she indicated that she wished she had not given her example because of the amount of discussion and attention it elicited. This session was an example of how AvR talked about the detail of an incident and in so doing derived an experience of having spoken about something, but could not experience any relief because there was no insight and processing of emotions.

Her Self-Monitor homework sheets (see Figure 9) revealed numerous reactions of anger and even rage to situations where she felt helpless and unsupported. These included incidents of bad drivers on the road, poor service when purchasing items, snide remarks from friends, and so on. She had a very harsh and critical self-monitor response to her reactions, judging instead of validating her feelings. At this point in the programme, she was still unable to counter the self-critical response with a caring self-monitor response and in the research interview admitted that she was very critical and hard on herself. Her Bombs and Fuses homework sheet (see Figure 10) showed how her TABP, as well as her intense emotional reaction to conflict and confrontational situations, was her fuse behaviour. She also over-reacted to situations such as unsatisfactory shopping, unjust criticism and other ongoing situations in her life.

She indicated in her feedback form that she understood the presentation on Time Urgency in Session 3 very well (rated as a 4, see Appendix MM) but did not complete the homework exercise. She also understood the concepts that were presented in Session 4 about how attitudes and beliefs affect one's perceptions of a situation and therefore one's reactions such as anger and hostility, impatience and irritation. She participated in the discussions and indicated in her feedback form that she felt good about being able to say what she liked in the group, although she was more cautious after the previous session. She did not hand in the homework exercise for this activity. This was not problematic as the exercise for Session 4 was incorporated into a later homework sheet for Session 6 and this information was gathered at that point (see Figure 11). Situations that left her feeling out of control triggered off her intense reactions, often because she felt entitled to a certain treatment and felt affronted when this was not forthcoming.

Figure 9

Self-Monitor homework sheets for AVR

Date	Situation	Behaviour	Emotion	Critic's Response	Self-Monitor's Response
Wed 17/7	Peter driving home.	Kept applying brakes on my side!	Fear - am a hopeless passenger in car.		Close eyes & pray to get home
Thurs 18/87	Lack of service when trying to buy a bed	Sarcastic query to assistants if they were interested in making a sale	Impatience and annoyance at lack of skills & service		Explain to assistant that he is not doing his work
Fri 19/87	"Supposed" friends' continual snide comments	Stayed calm on outfall but became very cold.	Seething with anger and desire to just tell her, her fortune		Must at some stage confront her about her attitude & lies.
Sat 20/7	Driver pulled into 2 lanes of traffic from side street	Slammed on brakes, got out and screamed at him.	Rage - road rage!		Avoid accident & drive away quietly
Sat 20/7	Shockingly packed bag for grandchildren as always	Forced myself to stay calm and did not say anything to kids	I despise & loathe her (ex daughter in law) for everything she represents.		Oh! God is there any solution!
Sund 21/7	Same person visits again: Sweet to pie in front of my husband.	Just ignored the "sweetness"	Annoyance will self for not saying what I feel.		Take it for from where it comes!
Mond 22/7	Dealing with lawyer for Peter's Mother's affairs yet again	Dealt with it but very curt about it all.	Rage - after yrs of abuse from Peter's parents - the one left coping with everything		Just accept that the job will always be, mind.



Date	Situation	Behaviour	Emotion	Critic's Response	Self-Monitor's Response
Tues 23/7	Being told by my son that his MFL children are sleeping with yet another person.	Feel such contempt and disappointment for being wrong about W.	Such deep anger-sadness at what my precious "babies" are exposed to		Just give Steve and understand support
Wed 24/7	Muddle up yet again at clinic	Try to ask calmly why late - late comers were served first.	Deep sadness, almost sympathy and resentment because I am in this position.		Be grateful about getting multi free- them to can't afford it myself

AUR

Date	Situation	Behaviour	Emotion	Critic's Response	Self-Monitor's Response
24/7	Driving home	withdrawn	Sadness and depression	Know my own values	Ignore other comments Keep on seeing the good things
25/7	Daughter's pregnancy without help of all the IVF's	Deep, deep joy, happiness for Shania + Mark + every possible for them	Was there for Shania + Mark + every possible for them		
26/7 Daddy from front	Alcohol from Mother of the Home Had to see lawyer about lots about affair	Told the dread of to leave me + put shame down + make had a decision by myself yet again	So angry that I would rage So let down by Peter just all.		What? I could just ignore everything I do with V. Ripoy's family. 4:6 PM of hell is just too much
27/7 28/7 29/7 30/7	Quiet weekend but felt very depressed.			Rinchen's coming of new baby	Must try to look at the positive Love coming of new baby
31/7	Have to deal with V. Ripoy's affair again	Sayed calm on surface but Anger, resentment + grief of all the memories of all the done + said to me across the year			For heavens sake I must try to ignore it all - but no-one will do it all.

31/7 Taxi! Have had enough. I needed at. I wish I could behave like a lady.

**Figure 10****Bombs and Fuses homework sheet for AvR****WORK SHEET: SESSION TWO****BOMBS AND FUSES**

In this exercise, the *Bomb* is identified as the heart attack, occluded coronary arteries, or cardiac denial. The Bomb can be detonated by any of the following *Fuses*:

- A. Type A behaviour pattern (TABP), especially anger and impatience.
- B. Excessive and prolonged physical exertion at a high altitude (i.e. above 5 000 ft).
- C. Excessive and prolonged physical activity to a state of exhaustion.
- D. One extremely heavy-fat meal.
- E. Chronic mental and emotional exhaustion.
- F. Excessive use of caffeine.
- G. Chronic abuse of alcohol.
- H. Excessive smoking.

These *Fuses* are commonly experienced risk situations which, over time, will put you in jeopardy of exacerbating your heart disease risk (Bracke & Thoresen, 1996). Use the following work sheet outline to identify potential *Fuse* behaviour.

Date	Situation	Fuse Behaviour (Note A, B, etc)
18/7	Unsatisfactory Shopping	A
19/7	Unjust criticism caused by her jealousy	A
20/7	Drawing incident	A
20/7	Neglect of grandchildren by their Mother	E
22/7	On going dealing with Van Ryswyk's family affairs	E ~ A
23/7	Personal behaviour of Daughter - Luv.	E ~ A

HÖR

Date	Situation	Fuse Behaviour (Note A, B, etc)
25/7	News of baby	I get terribly emotional E
26/7	Conflict Confrontation	A
29/7	" "	A

Figure 11

Situation	Behaviour	Emotional Reaction	Fuse Behaviour	Bait	Hook	Belief System	Self-monitor
Driver hoots at you.	You shout, make a fist, drive faster.	Anger.	Shouting, Type A behaviour pattern.	Another driver shouts at you.	Who does that person think s/he is to hoot at me.	I have a right to be on the road. I am such a good driver, I wouldn't do that.	Calm down, it's okay to get angry.
Grandchildren arrive dirty & uncared for	Just looked at Mother with contempt	Anger + sadness at their neglect	This time cold anger & disdain	Her indifference to sense of decency	Who does she think she is	I have a right to expect children to be cared for	Calm down Not much I can do to change her. Also does it to spite me
Husband carry on about route & choose to drive	Ignored then made cutting remark	Fury at his interference	Cutting & fractions comment	His thinking he knows better	He does not know what I know & where I'm going	I have a right to choose the route & drive	Ignore & do my own thing
Dead beat running & doing for everyone else	Very snappy & irritable	Anger at being used	Quick temper	All family expect me to do everything	Who do they think they are to always use me	I should be left to have time of my own	Accept it Can't change 40+ yrs of habit.

What you see

What you feel

The type of behaviour

Who does that person think they are

(g) Sessions 5 and 6: Identifying and expressing feelings, listening with empathy and effective communication and listening

In Session 5, AvR was able to follow the exercise that helped her identify her feelings and did not need to identify her feeling in a physical form. She indicated that while all the concepts were very clearly presented and that she had a good understanding of them, (both rated as 4 and 3 respectively), she only felt somewhat confident (rated as a 1) about changing her patterns of communication (see Appendix OO). She expressed in the feedback form that the most outstanding aspect of Session 5 was “being shown who I really am and beginning to know how to deal with it. Whether I can is another story”.

The focus of Session 6 was to help participants understand the concept of listening with empathy. To do so individuals worked in small groups and AvR was one of a group of three individuals. She enjoyed this experience and felt that she was able to listen to the other members with quite a degree of empathy (rated as a 4, see Appendix PP). However, an observation of her behaviour indicated that it was very difficult for her to refrain from giving advice or from giving testimonials of her own similar experiences. Her perception of how empathic she was did not therefore match the reality as she seemed to feel a need to control and fix others and could not allow a space for experiences to be shared without giving advice. In these sessions, AvR exhibited the time urgency component of the TABP that describes the Type A's need to finish sentences for others. Her speech in terms of its explosive and accentuated manner also fits the time urgency component. Her comment of concern in her feedback form was again around her ability to change, that is, “wonder if I'll ever become a ‘de-stressed’ and

calm person". She was therefore becoming increasingly aware of the areas of behaviour that she needed to work on but was not feeling confident to change these. At the first research interview (between Sessions 5 and 7) she indicated that although she had been familiar with the content of the lectures prior to the intervention, she had never used the information. She realised that she did not say "no" and did too much for everyone as a way of pleasing and keeping everyone happy. The most pertinent thing that she identified about herself was how easily she lost her cool and over-reacted. She described how "a part of her stayed calm, while another acted like a lunatic". She could identify that she was like a pressure cooker constantly blowing up at situations, usually quite minor, but felt quite helpless to change her reactions. She relayed how that day she had climbed out of her car in the traffic and banged on the person's car window as she had blocked up the traffic. The other drivers laughed at her and she felt very embarrassed by her behaviour. This kind of behaviour, while typical of Type As, especially when thwarted in their endeavours, also indicates AvR's low tolerance level for frustration.

Her feedback about the homework sheets was that they had increased her awareness of how hard she was on herself and that she set very high standards for achievement. Because she "didn't suffer fools gladly" she applied these same high standards to herself and thereby put herself under extreme pressure. She was also aware of the "prim school teacher" in her self-critical voice. The concept of spending "R500s' worth of energy on a R5 problem" that came out of Session 4 was the most useful one for her and she started using it to evaluate the type of intensity of response that a situation warranted.

By the end of this section of the programme, AvR felt she had a clear understanding of her TABP and her stress levels, but was not at all confident about changing any of her behaviours. Her behaviour in the sessions confirmed aspects of her TABP such as her impatience at herself. Her school-marm attitude was also evident when she said to one particular participant “come on ... let’s hear what you have to say” and is indicative of how she attempted to control herself and those around her. Her level of depression dropped markedly at the end of Session 4 but increased once more to its previous level at the next session (see POMS scores, Figure 7, p. 149). It is not clear whether this was due to some relief as a result of participating in the group discussions or due to some other daily occurrences in her life.

(h) Sessions 7 to 9: The compensatory nature of the Type A behaviour pattern

AvR rated the various psychological concepts presented in Session 7 with a 4 for clarity of presentation and understanding (see Appendix QQ). They were thought provoking for her and she reported at the next session that she had not been able to sleep after the presentation. Her description of the most outstanding aspect of Session 7 was “being left with a lot to think about and identifying feelings in oneself”. An observation of the small-group interaction indicated that AvR was able to listen to the other participants with more empathy than she had in Session 6 and that she was able to do so without giving advice. She did not talk excessively in the sessions and was therefore able to listen more openly. Her tension levels as measured on the POMS (see Figure 7, p. 149) were also lower. These indicate some positive change.

The homework sheet for the concept of the Triangle of Relating presented in Session 8 (see Figure 12) helped AvR to identify her family's strong sense of ethics and manners, as well as an expectation of consideration for others. She understood that her intense reaction to the death of a friend was driven by her resentment at the untimely death of her father, a loss she had not properly dealt with. She felt sad and depressed about her physical appearance and believed that the root of this lay in how she felt she always had to be strong and put her needs "stone last or not all". She also recognised "how manipulative and narcissistic" her mother had been. She was therefore starting to make connections between her behaviour and her past.

No new material was presented in Session 9 and participants worked in smaller groups of twos and threes on the topics that had been presented thus far in the intervention. By the end of this session, AvR indicated in her description of the most outstanding aspect of the session that "wow! I need an awful lot of unravelling as a person". Her insight had therefore shifted to a level of recognising the need to understand herself as well as a need to change more than just her behaviour. This is a strong positive shift from the first few sessions where she was only able to identify her behaviour.

(i) Sessions 10 and 11: The lived body and the mind-body connection

In Session 10, AvR commented that the information offered in the lecture concerning the lived body had always been a gut instinct for her and that she was not at all surprised by it. At one point in the session, the group worked with what they associated with the term "heart attack". AvR indicated that she had felt rejected by her heart and was very angry that she had had a heart attack. She was still angry about the events leading up to the

Figure 12

Triangle of Relating homework sheet for AvR

Situation	Knee-jerk Reaction	A caring Self-Monitor Response	Potential past root of the reaction
Rudeness from stranger at Auctioneers	Told him he was rude "uncouth"	Should have just ignored him.	Strong ethic of manners & consideration was taught & expected of me.
Dealing with money matters for Peter's Mother again.	Have bank a strong	Should have insisted that Peter dealt with it himself.	Resentment at way in which his family treated but hated of me Manipulative Mother on my side too
Bank made a "cock-up" one more.	piece of my mind		him an their not as nasty as Mother-in-law.
heart of death of 38 yr old friend who was a truly wonderful person.	Intense sadness but also anger at some of the awful people that are still alive!	Feel the sadness and be there in every way "positive" for his family	Resentment at the very untimely & unnecessary death of my father
Have been feeling very depressed about myself. What I look like & how I feel.	Burst into tears or just filled with self pity.	Try to find time and willingness to spend time on myself.	Have just always had to be strong and put myself and my needs stone last or not at all.

heart attack and the attack itself. She felt that the attack expressed her anger about the life events happening to her at the time and that if she had been her usual raucous self and had expressed her feelings, she might have avoided both heart attacks. Her heart attacks expressed that she could no longer carry on and were also a message to those around her to be alerted to this fact.

She was concerned though that understanding and identifying all that “makes her tick” would turn her into a “self-obsessed being”. This was not a comfortable situation for her as her mother was a hypochondriac and AvR had spent her life trying to be different from her mother. She seemed to have done this to the extent of ignoring interoceptive cues from her system as a way of controlling her own fears of becoming self-absorbed like her mother. A discussion took place around taking responsibility for one’s actions, rather than becoming a “drama queen”. She felt that the discussion in this session could have gone on for longer and with more depth and again expressed that they still had so much to learn. She was clearly feeling the benefits of verbalising her feelings. She rated the experience in this session as 3 for satisfaction, and 4 in respect of clarity of presentation and understanding of information (see Appendix TT).

In Session 11, participants continued to work with the lived body experience and AvR reiterated that she believed that anger was a precipitating factor for her heart attacks. She noted that she commonly used the expression “I am pissed off” and that she now had a weak bladder. This confirmed for her how everyday language is embodied. She was unable to comment on the relaxation with the lived body as she again “simply switched off” in the relaxed state. At the end of this session she reiterated her need for more in-

depth discussions to help her understand the new-found level of awareness of her behaviour and rated all aspects of this session with a 4 for clarity of presentation, understanding of information and satisfaction with the session (see Appendix UU).

(j) Session 12: Summary of past 11 weeks and closure

AvR commented that she found it easier to apply what she had learnt to the big things in her life, but that the smaller things still worried her. She shared an incident that had happened before coming to the session where she had dropped her new colander containing all the cooked peas for their supper. During the group discussion, the group leader helped her to trace the origin of her anger and it emerged that she had bought this very expensive colander while shopping with a friend who had been extremely critical of her for spending her money on such an item. She was also angry that in her hurry she had not used the colander properly and called herself “stupid”. Although she rated sharing her experience with the group as only somewhat comfortable (a 3 on the feedback sheet, see Appendix VV), by discussing this she was able to see how little things can be indicative of bigger things and that the Triangle of Relating was useful for identifying triggers from the past that influenced current reactions. In this case her reaction to her friend’s criticism, her anger at herself for not using the item correctly and her judgemental labelling of herself as “stupid” were triggered by her feelings of low self-esteem and her need for approval.

The incident in this session revealed AvR’s level of narcissism as in the final session where people were using the opportunity to say goodbye, she brought a crisis and used the group time to process this. AvR therefore returned to her previous tendency to

monopolise the session as a possible indicator of her anxiety about leaving. She expressed that the nicest part about the entire programme had been in speaking about her heart attack openly because up until this point she had not done so. To the researcher she expressed “a deep felt thank you for all the giving of knowledge and of yourself”.

At the second research interview one week after completion of the study AvR declared that she would really like to explore the origins of her behaviour and feelings. She felt that she had attained an awareness of the distant relationship with her mother and would like to have been able to address this in depth. She also felt that she had achieved an awareness of the level of her depression and anger, as well as her low self-esteem and insecurity. She was able to identify how she defended herself by putting on a mask to be pleasant for society. Before the programme she knew there were many experiences to be processed but had not wanted to look at them. Now she found herself feeling heartsore and sad, especially because she had never been good enough for her mother. She felt more confident about handling the external factors in her life but felt that her internal world was chaotic. By the end of the programme, she had, therefore, achieved a substantial increase in her awareness of her family dynamics and how this had affected her.

Concerning her feedback about the last five sessions of the programme obtained at the second research interview, she could not relate to the term “narcissism” for herself but could clearly see that it described her mother. AvR recognised that she presented herself as having “lots of self-esteem” but that deep down she felt very insecure. The information on the mind-body link was not new to her but she did not want to examine

this link too closely as yet, possibly because it would create too much vulnerability for her. She did not feel at all confident about making the changes to her behaviour pattern and felt that the little girl in her just wanted to be taken care of. Her JAS scores (see Figure 5, p. 144) at the end of the study showed that her TABP scores on the JAS and her mood profile scores as assessed by the POMS (see Figures 7 and 8, pp. 149 - 150) had all improved considerably from when she started the study.

(k) Follow-up and summary

Six-week follow-up: At this follow-up interview AvR reported that she was still managing her day-to-day life well although her scores on the JAS (see Figure 5, p. 144) had worsened considerably, even more so than when she had started the study. She indicated on numerous times to the researcher that she had remained on the programme because it had been a source of tremendous support for her. She said she missed the people and the interaction on the programme very much. Perhaps the worsening of her scores indicated how she was less able to think about her behaviour without the programme as a source of encouragement. Being the powerhouse in her family meant that while she was always supportive of others, there was little emotional support for her. Her improved JAS scores during the programme supported this (see Figure 5, p. 144).

She indicated that she did not feel that she could ever be the kind of person who would not get upset and did not feel confident about changing this behaviour. She was however able to recognise that she could not fix everything that went wrong and no longer “flogged” herself as much for not being able to do so. She was therefore more accepting of her limitations and was using a more caring self-monitor to manage feelings and

experiences than was evident at the commencement of the programme. She again reiterated that the phrase “R500s’ worth of energy for a R5 problem” was the concept that stood out as being the most beneficial from the programme. She also looked back on the programme and felt that sharing about her heart attack and her medication had been extremely reassuring for her. Physically she had given up hope of ever feeling well and continued to suffer from frequent unstable angina. Her scores on the POMS (see Figures 7 and 8, pp. 149 - 150) at six-week follow-up had even improved slightly from when assessed at the end of the programme. Therefore, while her JAS profile had worsened, her mood had improved.

Eighteen-month follow-up: At this follow-up period her JAS scores had improved from the assessment at six-week follow-up (see Figure 5, p. 144). Her Hard-Driving and Competitive score on the JAS showed a marked improvement and she indicated at this interview that she was very conscious of the information she had learnt in the programme and was using it to manage how she reacted to situations in her life. For example, she was very aware of how irritable she got when people talked slowly or could not express themselves, a behaviour indicative of the time urgency component of the JAS. It seemed that the information from the course had taken some time to filter through and that she was becoming increasingly aware of how and why she reacted in different situations.

AvR was still unable to process her feelings about past incidents. This was apparent in how she relayed these with the same detail over an 18-month time span. Although her depression had improved since starting the programme (this was also evident on the POMS form, see Figure 7, p. 149), it affected her ability to manage her life and her

reactions to daily stressors. The researcher therefore suggested she be assessed for medication by a psychiatrist, as she was unable to undergo any psychotherapy for financial reasons. About a month after being medicated, she reported feeling an improvement in her ability to manage situations without over-reacting. She did not however continue to take the medication because she could not afford to do so, but omitted to inform the researcher.

With regard to her ongoing angina pains, the researcher spoke with a specialist physician/cardiologist whom she worked with on a rehabilitation programme and who arranged for AvR to be seen by him for a second opinion at a state hospital where he worked one day a week. At the local clinic which she generally attended, her symptoms were merely managed and the researcher thought that if she were able to see a specialist physician, her level of care might be improved. After assessing AvR he commented that she could do a lot more for herself by way of managing her weight and decided that her medication was appropriate. He also referred her to a psychiatrist in the state system who prescribed an antidepressant. AvR reported feeling an improvement in her sleep pattern as a result.

Individual sessions: After the 18-month follow-up session, the researcher decided to see AvR for six individual psychotherapy sessions. The main theme of the sessions was around helping her to process some of her experiences from the past. Included were her relationship with her mother and how difficult her life had been. Already after the first session AvR indicated that she had thought about how her life had been filled with some very difficult experiences. She did not want to come across as “feeling sorry for herself”

and the researcher worked with validating her feelings. In the course of the six sessions she revealed that she had been pregnant when she got married and felt that if this had not been the case she might never have married her husband. She said if her family had known, it would have been a terrible shock for them, hence the hurried marriage without their knowledge. She was therefore able to talk about this for the first time and expressed her sadness at how impulsive she had been. The way that she always took control of situations was evident to her and she traced this origin to her emotional helplessness as a child. Guided by the therapist, she was able to process some of her emotions and experiences within the therapeutic environment. Although the group process during the structured intervention was useful for helping her to gain an understanding of her past experiences, it had not helped her to process her material. This was not because the group environment did not facilitate such change, but because AvR did not know how to process her emotions and therefore could not use the group sessions to do so. She found the individual sessions to be extremely beneficial for helping her “process stuff”. As a result, she found that she could let things go through her head, but then let go of them and move on. Her final JAS scores (see Figure 5, p. 144) indicated that her overall global Type A score had improved and that her Hard-Driving and Competitive score was a Type B score. Her POMS scores (see Figures 7 and 8, pp. 149 - 150) had also improved considerably from those scored before the individual sessions when she was already taking antidepressants.

The individual sessions and the arrangement for her to be seen by the physician at the state hospital left AvR feeling enormously cared for. In light of her comment at the end of the programme about her lack of confidence to change her behaviour and feeling that

she just wanted to be taken care of, these interventions supported her endeavours to put her own level of care into place. She has lost 11 kilograms in weight and now regularly attends a cardiac rehabilitation programme where the researcher works every second Friday of the month. She has also tried to stop controlling her husband and has let him take over some of the responsibility in the family.

## 6.2 Case narrative two: LR

### (a) Initial assessment, July 2002

LR presented as a very gently spoken, perfectly mannered, 67-year-old male. He was small in stature and slightly overweight and it was immediately apparent that he was a very anxious person. This had already manifested in his getting lost *en route* to the interview in spite of having received very clear directions. It was a very comfortable experience assessing LR because he was so open and willing to speak, but gathering in-depth information about his family history was complicated by his all-encompassing attention to his state of health and his anxiety about his current problem of sexual dysfunction. A major contributing factor for this was his concern about survival and healthy functioning in order to enjoy his new relationship with his 35-year-old lover. This relationship gave him a boost in life and without it the picture would have been very different. It was evident that although LR was aware of his emotions, he was unable to manage them. This in turn intensified his anxiety and resulted in high levels of worry and uncertainty. Because LR joined the programme eight months after his MI, it was difficult to assess retrospectively what his psychological reactions had been immediately after the event. At the start of the study, he viewed his MI as an opportunity to change his lifestyle

and was very hopeful about changing his behaviour, indicating that he looked forward to attending the weekly sessions.

(b) Background information

LR was born in Springs, near Johannesburg, on 11 November 1934, to a British mother and an Afrikaner father. He has a half-sister 11 years his senior from his mother's first marriage. LR portrayed his parents as two extremely attractive individuals who were very much in love, although he says he never saw any signs of obvious affection such as kissing. As his story unfolded it became evident that he had created an idealised picture of his parents and their family unit and that, in reality, he had been a very lonely child whose feeling world had been neglected. According to his sister, in his early years, his care was often passed onto her while his parents were "having their romance".

In spite of his parents being very much in love, unbeknown to LR, his father had an affair at the age of 45 that lasted for several years (LR was in his 20s at the time). Although his mother was absolutely devastated by the affair, his parents remained together but their relationship was extremely strained from that point onwards. LR says his mother never recovered from the shock of what his father had done and that it was only when her memory deteriorated in her 80s and 90s that she started to remember his father with fondness again. When his mother finally told him of the affair years later, LR was extremely angry with his father, commenting that he considered the woman to be "common" and very different from his beautiful mother, as he recalled meeting her briefly when out with his father. He never forgave his father, saying that even when his father died 11 years later at the age of 56, he "felt no impact and no emotion". After his

father's death, his mother lived in a flat on her own in Pretoria. She then lived with LR for the last four years of her life and died at the age of 98 in October 2001.

LR's mother was born in England in 1908 and her first marriage was to a much older man. Together they left England in 1923 just after the birth of LR's half-sister. LR said that it was not a love marriage and could not relate more about his understanding of their relationship as the subject had been taboo in his family. His mother was 23 when she divorced this man in 1925 because he had been dishonest in his job. Besides the stigma attached to divorce during that era, this was a very difficult time for her. As a newcomer to South Africa, she was without a support system and was left to fare for herself and his half-sister who was then only two years old. LR greatly admired his mother for her courage and her drive to achieve. She had never worked before and her first form of employment was as a housekeeper for a Jewish family, a job that he said was usually given to "black people". She then worked as a nurse in a home for orphans until 1933 when she met his father while on holiday. They fell in love and got married.

LR's father was born in 1908 of Afrikaner origin. He described his father in glowing, idealistic terms as an "extremely good-looking man with a wonderful personality" and an "outstanding person", "not a tyrant". He greatly admired his father because of how he strove to better himself in spite of the volatile political and poor economic climate in South Africa. Two historical factors contributed to this climate. The first was the South African War that ended in 1902 with the defeat of the Afrikaners by the English. This led to the disintegration of the Afrikaner economy when most struggled to find jobs and faced a time of high unemployment and poverty. The second was the Great Depression

from 1931 to 1934 when most people were poor or struggled financially, including the wealthy. In spite of these adversities his father pulled himself from nothing to become successful.

LR's father's worked extremely hard to move away from his humble beginnings and to climb the corporate ladder. His first job was selling tickets on the railways, his second was as a senior mine captain for 10 years, and his third was as a manager of a large corporate insurance company. He worked at his last place of employment until 1964 when he died of a fatal MI at the age of 56. LR believes his father was always the centre of attention and that his charming, outgoing and gregarious nature, coupled with his ability to speak both English and Afrikaans well, contributed towards his success at work. Even after his death people spoke to LR about the impression his father had made on them. Having completed the programme, LR was able to recognise that his father was a typical Type A who worked hard to achieve. This was a quality that LR greatly admired and modelled himself on.

LR's mother was very proud of his father and of having a boy child in the family. LR said his mother was an "awfully nice person" and described her as a "very beautiful lady with a lot of class". He likened her to the "Queen Mother" in terms of her kindness and warmth. LR felt she was a "marvellous" mother who was very thoughtful and loving. His earliest memory is of them sitting together in the sun when he was around two years old. He was watching the smoke from her cigarette twirl into the sunlight and when he asked about it she said the smoke was going to the angels. He remembers this comment with fondness and thinks it was a very beautiful thing for her to have said.

At around the same time at the age of two, LR was hospitalised for two weeks for ear problems, an experience that had a profound negative impact on him psychologically. One of the nursing staff would not allow his mother to visit him and he recalled holding onto the bars of the white, iron cot crying for her. His half-sister relayed how one of the other nursing staff eventually called his mother and told her that she had better come and visit her baby as he was “dying from not seeing her”. Mother and child were both traumatised by this experience and even as an adult LR recalled details of the event and how frightening it had been for him. One of the consequences of this early hospitalisation was that LR suffered from severe separation anxiety and developed an overly dependent relationship with his mother.

LR felt he was gay from the age of three and already then liked males more than females. He therefore had some unarticulated sense of being different in respect of his sexual orientation. Up to the age of five, he liked older boys and indicated that he had a preference to be with boys rather than with girls. There was an age-appropriate phase of checking out the genitalia of girls his age and once he was caught by one little girl’s grandmother. LR described it as “the little girl got into trouble but I walked away”, indicating some feeling of empowerment from having achieved this. Although LR’s father was not aware of his sexual orientation he verbalised his fear to his wife that LR would be gay because he daydreamed and because he was “his mother’s child”. The enmeshed relationship between LR and his mother did not please his father, who always thought that LR did not like him enough. LR’s mother would then tell his father that he had not taken sufficient notice of LR when he was younger and could, therefore, not

expect the relationship to be different when LR was older. It appears therefore that LR's father could not relate to LR when he was younger and that this may have contributed to the overly dependent relationship with his mother.

LR was only seven years old when his half-sister got married and after this he started to feel more like an only child. He seemed to go through a difficult time after his sister left, probably because of his loneliness. He liked to play with the girls next door and at the age of seven his parents caught him wearing his mother's clothes. His father only once gave LR a "proper hiding" when he was about eight years of age. This was for stealing someone's toy and LR attributes the hiding to his parents' being "strait-laced". In light of LR's overly dependent relationship with his mother, the hiding as a form of punishment suggests that his parents might have been attempting an oft-used but misguided way of trying to "toughen up" a mommy's boy. LR said he really liked his father, who was "good enough" to him citing how his father once took him down the mine when he was eight years old. LR thought it was "awfully good of him" to give of his time to do this. The relationship between LR and his father was therefore limited and he was quite pleased to accept whatever attention his father offered. While his father had high expectations of LR, LR idealised his father as a role model and held minimal expectations of him.

LR relayed an episode that occurred in his fifth year of school (Grade 5) that he believed had a profound negative effect upon his already flagging low self-esteem and resulted in his "always defending his weaker inner self". His teacher told his mother that "she had no hope whatsoever" for LR. His mother, who was extremely upset by this, told LR what

the teacher had said. This report left him feeling like “a dud” and “stupid”, abiding feelings of his formative years that he felt caused a long period of “self-deception”. After this comment from the teacher, he was unable to concentrate in class and spent a lot of time daydreaming during his lessons. Looking back, LR believes that his constant daydreaming in class misled his teacher and reinforced her beliefs about him. In fact, he was extremely hurt by her derogatory and uncaring comments about him and these added to his insecurities. LR’s emotional response to his teacher’s comment was not dealt with and he must have felt very alone and misunderstood. Soon after this LR was victimised and picked on at school and his classmates often called him a “sissy”. In Grade 6 a group of children bullied him because he had not done well in class. They started to beat him up and the only way that he could put a stop to the beating was “to fake having a heart attack”. He felt that the teacher had condoned the behaviour of the other boys and had not intervened in any way. In spite of holding his own at school and getting into various scuffles, he was labelled as “a sissy” by his peers and by his father.

It was in the middle of this sixth year at school that he and his mother went to England to visit her family. Their stay lasted a year as it was difficult to get a passage home from England to South Africa in the post-war years. He did not believe that there were any marital problems that contributed to this visit. He remembered this as a traumatic experience because, as time moved on, he missed his father. In addition, he boarded with his aunt, his uncle and their son, three years his junior, while his mother stayed with her parents some distance away. They decided on this arrangement because the school in the village where his maternal grandparents were located was “too rough”. This decision is

an indication of his parents' limited insight about the impact of such an arrangement on his emotions and behaviour.

LR did not like his uncle and described him as a "very narrow and strict man" from a well-off family. He undermined LR and reinforced the feelings of inadequacy that were already present. One incident in particular stood out for LR and he relayed how he got into "a real proper fight" while walking home from school one day. When he thought he overheard some children making fun of him, he immediately went over and hit the one boy. He arrived home "really messed up" and his uncle's response was "I bet you just ran away", a comment that suggests that his uncle was of the opinion that LR was a coward. This really irked LR as he felt he had quite "moered" (beaten up) the boy. The entire stay with his uncle and aunt was tainted with these kinds of interactions between him and his uncle. His mother's choice of a surrogate family was disappointing and difficult for him as his aunt was his mother's "favourite" sister and was entirely trusted by his mother.

After their return from England, LR says that he was unable to sleep alone. Although this problem stemmed from his early hospitalisation and was evident from the age of two, it worsened after returning from England. Although his parents were very worried about him, he had to stay in his bedroom alone and was not reassured about his fears. This may well have been due to his mother's English Victorian background and his father's Afrikaner Calvinist upbringing where emotions were not really acknowledged. In addition to the sleep problem a number of other incidents indicated that he was struggling with gender issues. He relayed dressing up as Cinderella's ugly stepsister for a school

fancy dress party when he was about 12 years old and described his father's horrified reaction when he caught LR leaving the house dressed like this. Although his father never ridiculed him, LR believes he thought he might become gay. His first sexual encounter was around this time and he described how he sought out a "30-year-old, black, male garage attendant" and they experienced mutual masturbation. He says this was an experience based on pure lust. Soon after this event he "had a very nice girlfriend" but they just kissed. He felt if he had not been sent away to boarding school he could have "gone the other way" or been "bisexual".

At the age of 12, soon after these events which occurred within the seven months of their return from England, he was sent to a prestigious school for boys in Potchefstroom, some distance from Johannesburg. At the time, Potchefstroom was a major centre of education. Most of the schools employed British teachers and the level of education was therefore of the highest order. He admits being shocked when he was told that he was to go to boarding school and only now understands that his parents had made a decision to provide him with the best schooling. Although he thinks it was difficult for his parents to drive off and leave him at the school, he can say with certainty that it felt bewildering for him.

He eventually got used to being away from home and "enjoyed life sufficiently". His sleep problem improved as he felt somewhat comforted having a group of boys in the dormitory with him. He held his own at high school and did not allow himself to be picked on, saying that he had "smacked" anyone who tried. He also felt that the other boys liked him because he was good-looking and good at sports. Although his father did

not approve of athletics, he loved this sport and became the best in his school at sprinting. He played rugby reluctantly to please his father, saying it was not really part of his nature. Although he successfully managed his interactions with the other boys, his feelings of insecurity that were heightened in his primary school years persisted. It therefore came as a complete surprise when he was made head boy in high school.

When LR left school he obtained a Bachelor of Arts degree in fine art and history as well as a teacher's diploma. It was only at his university graduation that he finally realised the inaccuracy of the primary school teacher's comment but by then the comment had become a "driving force" in his life. He also studied theology at university and feels that it was at university that he felt a calling to join the priesthood. He did not, however, act on this calling until much later. After leaving university, LR taught fine art and history to high school children in Zimbabwe (then Rhodesia) for three years from 1959 to 1961.

Although one or two male lecturers tried to seduce him at university, LR generally stayed away from relationships as an adult. A number of experiences contributed to his finally coming out about being gay. He was studying a psychology course in Leicester, England, in 1962 (he was 28 at the time) when his mother told him about his father's affair. At around the same time he went into therapy to deal with his feelings of being a dud which surfaced in full force during the psychology course. He felt uncomfortable with group work and hated having to respond to questions because he felt he could not do it properly; as a result he always blushed a deep red. In addition, he had passionate feelings about a fellow male student on the course and because he had not come to terms with his sexuality, this became a very confusing time for him. The individual sessions with the

psychologist conducting the groups helped him to deal with his feelings about the group dynamics. As a result of the sessions he was also able to come out about being gay. This was a turning point for him and he felt for the first time that he could embark on a relationship with himself, accepting himself as he was. He started a new life and moved to the United States for the next 25 years from 1963 to 1988. There he worked for the United Nations on the Palestine Conciliation Commission for a year and then taught history at private schools for the remaining time. He also joined the seminary at the age of 38 and spoke freely and with great enthusiasm about his work as a priest for a traditional church, a job he felt he was good at and which he enjoyed.

It was only in the follow-up interviews that LR casually mentioned that he had had sexual experiences with two women. The first experience occurred in 1963 in the United States when he was 29 years old, shortly after he came out about being gay. The person he became involved with was a 42-year-old British woman who lived in America with her husband and son. The son was a pupil in his class and LR had developed a close relationship with the whole family. He described her as "such a nice lady" who looked like Elizabeth Taylor and added that he "functioned" well with British women because of his mother's background. His description of her had an undertone of intrigue and fantasy. He felt that she had seduced and manipulated him into having sex with her and he described how, in her husband's absence, she came into the lounge wearing a very sexy negligee when they were having drinks together. He said that he felt it would be "very bad manners to reject this lady" and had a wonderful one-off sexual experience with her. She told her mother of her "conquest" and her mother in turn told the husband. LR then felt scared enough of retribution to flee, as in the state of Utah, it was legal to kill

someone if that person had had an affair with the aggrieved party's wife. He felt very clever that he had outsmarted the husband and described in colourful terms how he escaped in his "convertible yellow Mustang" to New York with his Mormon male lover, whom he had just met. There they pursued a good, but not very "mature relationship" for four years. The relationship had cooled when his partner died of diabetes.

In 1982, at the age of 48, he was living and teaching in Florida when he got involved with a wealthy widow four years his senior to whom he also later became engaged. He met her when he was going through a difficult time at work. He was one of three departmental heads at a school and when the school found out that he was gay and was living with his partner, a long process of litigation ensued that eventually resulted in his having to return to South Africa in 1988. She was extremely supportive during this time and they remained in contact when he returned to South Africa. She knew he was gay but he said she liked to deny it as time went on.

She used to visit him in South Africa and also would pay for him to visit her in the States. He said she was a safety net for him and that he loved the style of life that she provided such as "nice drinks, good malt whisky – the good life". He therefore enjoyed being taken care of by her. She had recovered from an MI and he felt that she was his responsibility. He again thought it was "good manners" to have sex with her although she "wasn't very good at it because she'd had a hip replacement". In 1990 he set the wedding date for February 1991 as he had decided that he "might as well get engaged, stop work and live an easy life".

In October 1990 during one of her visits to South Africa, his fiancée developed a heart valve problem and suffered a fatal MI. He had just returned from his last day of school and as he pressed the doorbell at the front gate to his home, she answered saying “come in dear”. When he got to the door, he struggled to push it open as she was lying against the door. In addition to the shock of the suddenness of her death, was the fact that she had not acknowledged him as sufficiently important in her life to include him in her will. This “changed everything for him” as he felt he had given so much of himself in the relationship and felt rejected by her death. He says he was so angry that he did not miss her for a year or two and dealt with the loss of this relationship by denying his feelings.

For a long time after his fiancée’s death, LR did not commence another long-term relationship. His housekeeper of 81 years of age lived with him and he felt she was on the receiving end of most of his anger and this dissipated his tension. It seems that after the abandonment, rejection and disappointment of his previous relationships, living with his housekeeper was the extent to which he allowed a relationship. He indicated that throughout the relationship with his fiancée, he acknowledged his sexual orientation and felt that he was not being true to himself. He strongly felt that his “gay relationships were the only real ones” and that these allowed him to feel authentic.

In 2002 at the time of the assessment interview he had just entered into a relationship with a fellow priest 32 years his junior and felt that he wanted to continue this relationship for the rest of his life. In LR’s church it is acceptable to be gay, provided one remains celibate. LR’s response to this is that he would tell them to “fuck off” if they found out he was sexually active. This indicates the importance to him of being able to

express himself on all levels of his being. At the commencement of the relationship, he was extremely anxious about his sexual dysfunction, a problem mostly caused by his heart medication. However, because his partner had been very caring, this had improved. They did not see each other regularly as his partner lived some distance from the city and this created enormous anxiety for LR. He was particularly anxious if his partner was late in making a phone call or was unable to name the day when he would be visiting LR. He was very animated when he spoke about this relationship, indicating that he'd been given a reason to live longer and to take care of his health.

He had always been particularly aware of his physical appearance and had regularly attended a fitness centre for the past 44 years. He had also joined the Alpha mind course in the nineties through his church and found the meditation exercises particularly helpful in managing his daily stresses. More recently, his relationship with a much younger man had highlighted the ageing process and added to his anxiety about his health and about looking old when he turned 70. Because of his training in art, he said visual impressions were of utmost importance and that he had always loved both sexes for how they looked. He also believed that gay people were very physically conscious. He said "good looking people get the jobs" and he felt that his own "good looks" had been helpful in compensating for his lack of physical stature. He was fervent about his social abilities and his enjoyment of partying. He was feeling very happy about his new relationship at the commencement of the programme and this contributed much to his positive outlook.

(c) Medical history and coronary heart disease risk factors

LR had a severe anterior MI in June 2001 at the age of 67, about eight months prior to his first assessment interview. There were no warning signs or symptoms leading up to his MI and when he experienced a tight, painful feeling across his chest, he did not know what it was. He therefore delayed seeking medical help for about six hours at the time of the attack. When he finally called his doctor he was told to drive himself to casualty, as the doctor was too tired to come out. He felt rejected and extremely anxious but managed to drive to a trauma unit. There he was hospitalised and treated with morphine to dissolve the clot. Within an hour of admission he underwent PTCA to the proximal LAD, a significantly dangerous part of the artery (see Figure 1, Chapter 1, p. 6). The report from his cardiologist indicates that he has triple-vessel CHD but does not elaborate on where the other blockages are. He remained in hospital for eight days and his progress thereafter was uncomplicated for eight months when he experienced discomfort in his chest and was again hospitalised. The PTCA was repeated to the same area and his medication changed. After this he felt very well.

He knew what medication he was taking and what each one was for. In relating the causes of his MI he believed that smoking a mixture of marijuana and mandrax was the immediate predisposing trigger for the attack. No causal relationship has been established between the use of these drugs and the onset of an MI. However, his belief that the recreational drugs had triggered his MI gave him a sense of increased locus of control as he decided that if he did not experiment with drugs again, that he would prevent another MI. His genetic predisposition for CHD came from his father who had suffered his first MI at the age of 53, and a second, fatal attack at the age of 56. LR

related that while he had been aware of this genetic history he had discounted its importance until his own MI. One of his primary risk factors included a dangerously high cholesterol level of 8, which he had ignored. At the time of the interview it was controlled to 4,1 with the statin Lipitor. He had a misconception that his blood pressure of 120 over 80 was a contributing factor. He had smoked 20 cigarettes per day from age 16 to 40 when he stopped for 21 years. He then resumed smoking 10 cigarettes a day from the age of 61 until he had the infarct at age 67.

His secondary risk factors consisted of poor eating habits and a sedentary lifestyle. He was slightly overweight with a BMI of 27 (height 1,70 m and weight 75 kg). His history of other ailments included sexual dysfunction, mainly caused by his heart medication, a hiatus hernia in his oesophagus in 1965, and an anal sphincter muscle that required dilation once a year. More recently he had discomfort in his hips. After his MI he took Imovane, a sleeping tablet, and Lasix, a diuretic, but is no longer required to take this medication. He was aware of stress as a contributing factor and in the course of the first assessment interview admitted to chronic anxiety. Although LR knew about CHD and the risk factors, he did little to prevent the development of the disease. He regularly exercised at the local gym, but did so for aesthetic reasons and not to prevent the development of CHD. His level of denial concerning his potential risk as a CHD patient had therefore been high until the time of his first MI.

(d) Formulation

LR's life story as he told it had the undertone of a fairy-tale. He described his parents' relationship in a very romantic light and presented a picture of a very happy family who

were very beautiful and good-looking and who loved each other very much. The facts that revealed themselves, however, suggest that this was not always so. His half-sister was frequently assigned the task of looking after him and at least for the earliest part of their marriage, his parents were overly involved with each other. It is unclear if he blocked out any evidence of problems between his parents or if they simply hid their interactions from him. Nonetheless, his father's extra-marital affair came as a shock and was a sign that there may have been problems in his parents' marriage.

The hospitalisation at the age of two and separation from his mother was extremely traumatic for LR and left him vulnerable to separation anxiety. Numerous other experiences that involved separation undoubtedly heightened his anxiety. These included the extended visit to England without his father, the stay with a tyrannical uncle and the separation from his mother during this time, as well as his being sent away to boarding school soon after returning from England. As an adult, his separation anxiety was pervasive. In his personal relationship he suffered greatly when separated from his lover and his anxiety was overwhelming if their agreed phone call did not happen at the exact planned hour.

Linked to the separation anxiety was his dependency in relationships. LR had an overly involved and emotionally dependent relationship with his mother and an emotionally distant relationship with his father, especially when he was a little boy. His father described LR as a "mommy's boy" and the boys at school called him a "sissy". His mother also did not facilitate a process of emotional and psychological maturation. As a result, LR had to cope with many difficult experiences in his life without understanding

or being able to manage his feelings about these. He repeated the dependency with his mother by looking for ways to be taken care of, as was the case with the wealthy American widow. His decision to get engaged was therefore based on a need to be taken care of and not out of love or a desire for a long-term commitment. His neediness and dependency in his current relationship was evident in how anxious he became in his partner's absence.

LR tried to live up to the very high expectations placed on him by his distant, critical father. Already under pressure because of these expectations, he added to this by idealising his parents and this increased his feeling of inadequacy. The primary school teacher's comment left him feeling stupid and a great disappointment to his parents, while being labelled as a "sissy" and feeling different from the other boys added to this insecurity. Although society's homophobic attitude created a huge pressure on him as an adult to hide that he was gay, he had in fact for most of his life been unable to live authentically. It is interesting that he came out about being gay at the same time that he heard about his father's affair. Perhaps hearing about his father's infidelity and therefore seeing his father in a less idealistic light helped him to become more real in himself.

Separation anxiety, dependency in relationships and an inability to tolerate and manage his emotions had a constant negative impact on his daily functioning. Much of his anxiety in his youth was exacerbated by feelings of inadequacy and low self-esteem. Being unable to tolerate and manage his feelings, he could not deal with a series of life events that involved losses in relationships. The loss of his father as an idealistic role model when his father had the affair is one such instance and the death of his mother another.

His fiancée's untimely death and lack of recognition of him by her in her will exacerbated the difficulty of his life circumstances, which changed radically when he was asked to leave his teaching post in America. The small pension that he receives from America does not cover his living expenses, creating enormous financial stress. The loss of the financial security that he would have enjoyed by marrying his fiancée at the age of 56, when little could be done to rectify the situation, must therefore have been a great disappointment and shock to him.

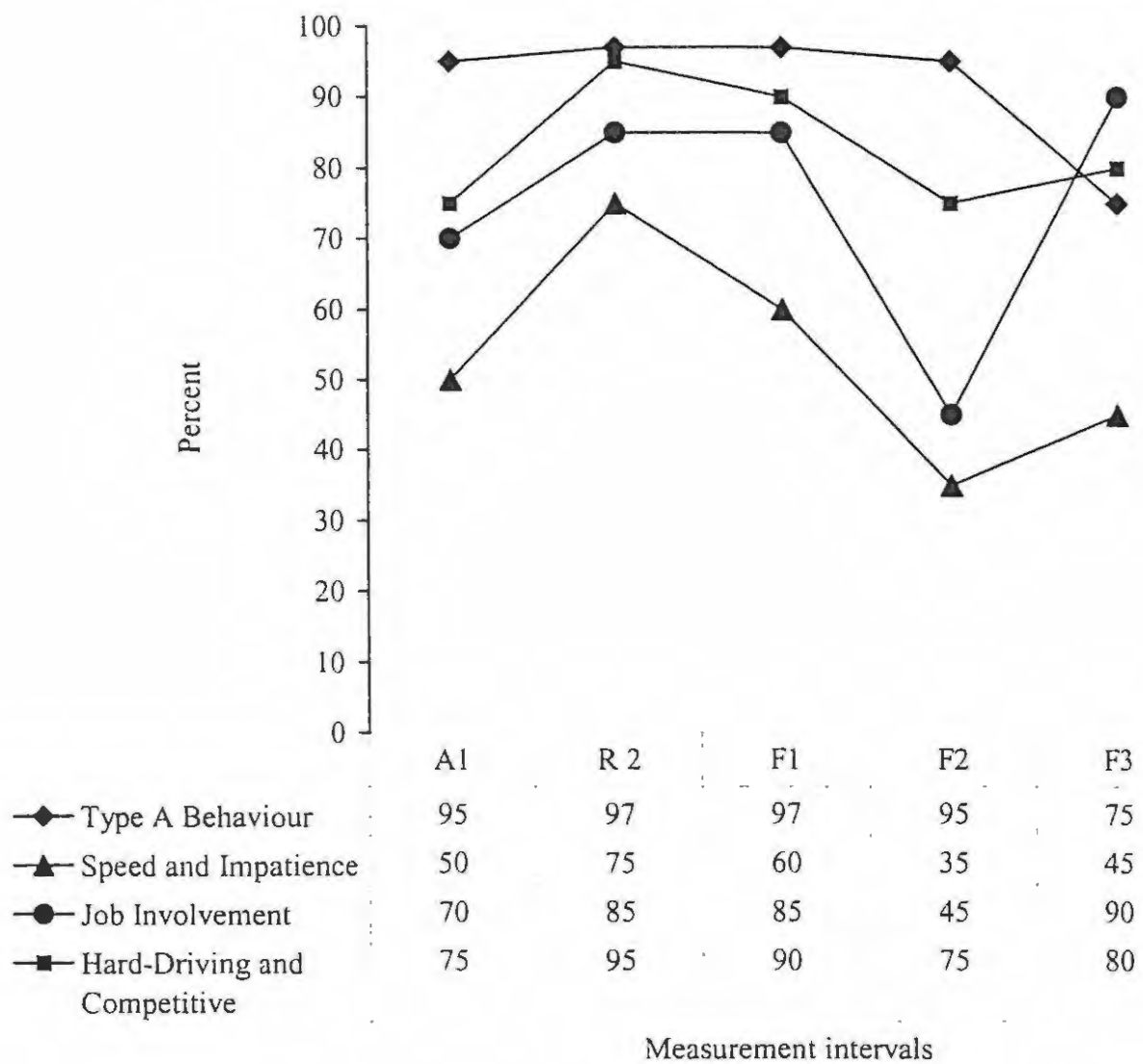
In a family environment where the emotional climate did not allow for feelings to be discussed, LR had to find his own way of managing his emotions and his insecurities. One way was by hiding his true feelings from himself and by developing a facade that concealed his insecurities. He became apt at presenting to the world what he thought people wanted to see. LR emphasised appearance and took great care of how he looked, and drove himself hard to succeed and achieve as a way of coping with inadequacy. Striving was one way to be like his father whom he so greatly admired. An expression of this striving for achievement and success was the TABP.

Aspects of LR's TABP profile are not typical of the Type A (see Figure 13). For example, his gentle nature, his mannerisms and his style of speech are not hurried and explosive. He thought through his answers carefully and spoke clearly and slowly, a factor born out by his score of 50% on the JAS for Speed and Impatience. His global Type A score was 95% and his scores on the remaining JAS components also indicated an extreme TABP. It was clear from his description of his job that he went about his duties with intensity, a factor confirmed by a Job Involvement score of 70%. He scored

Figure 13

Jenkins Activity Survey scores for LR

Key to x axis	
A1	= Pre-programme assessment interview
R2	= Second research interview at one-week follow-up after the programme
F1	= Six-week follow-up interview
F2	= Eighteen-month follow-up interview
F3	= Follow-up after individual sessions with the researcher

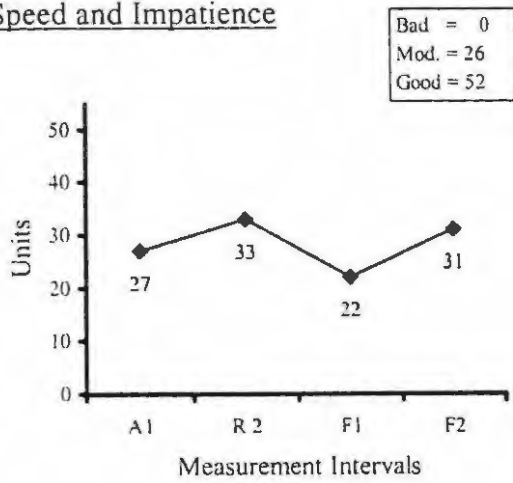


75% on the Hard-Driving and Competitive component but did not behave in a typical Type A fashion by outwardly competing. Although LR presented an air of calmness, it seemed that he went about his daily activities with a great deal of intensity and effort and underlying turmoil and anxiety. His partner rated LR's behaviour as normal on the SRS (see Figure 14) and did not therefore perceive his TABP to be extreme. LR's first POMS scores (see Figures 15 and 16) indicated that his emotions were well within the normal range. This is not congruent with the level of anxiety which he presented at the assessment interview. At the commencement of the study his scores from the various questionnaires did not therefore present a consistent picture.

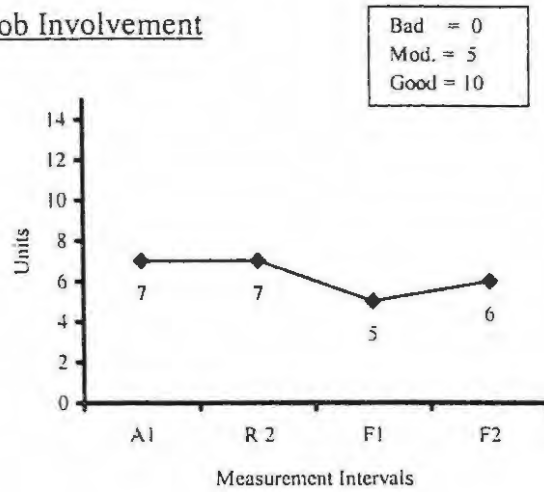
LR therefore presented with high scores for all the TABP components with the exception of the time urgency component. This may have been due to his age as he described his behaviour in his 50s as very time-urgent and at that time might have presented with extreme scores on all components of the JAS. The psychomotor signs of the TABP in terms of time urgency and free floating hostility are considered to be the main predictor of CHD. LR did not present with extreme psychomotor activity and this may have been an ameliorating factor for the first signs and symptoms of CHD at 67, as even with primary and secondary risk factors and an extreme Type A profile as measured by the JAS, he did not develop CHD before the age of 60. LR is an example of how the development of CHD is a multivariate phenomenon. His primary and secondary risk factors, as well as an extreme Type A profile, all predisposed him as a high risk for CHD, yet he only presented with the advanced stages of CHD at the age of 67. LR exercised throughout his life, and while this probably played a vital role in the delay of the

Figure 14  
Spouse Rating Scale for LR

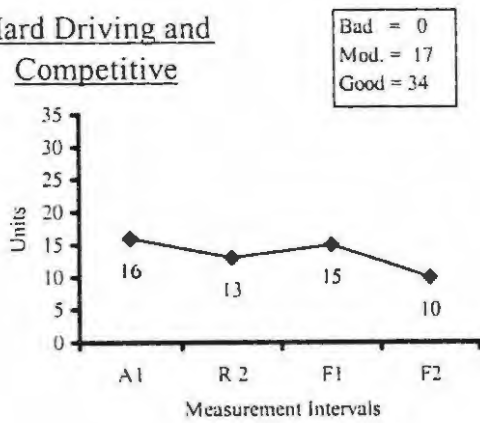
Speed and Impatience



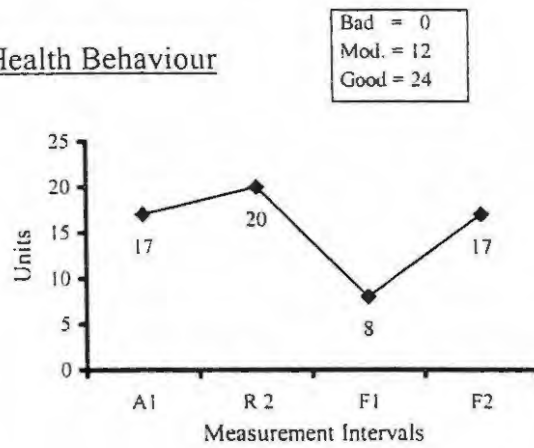
Job Involvement



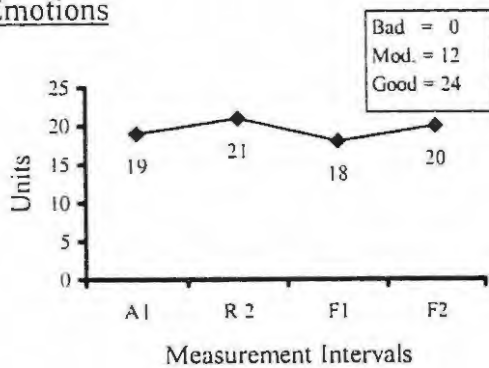
Hard Driving and Competitive



Health Behaviour



Emotions

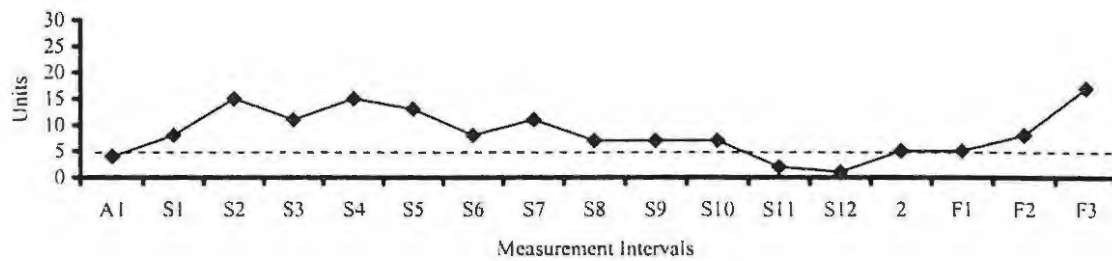


Key to x axis  
 A1: Pre programme assessment interview  
 R2: First research interview mid-programme  
 F1: Six-week follow-up interview  
 F2: Eighteen-month follow-up interview

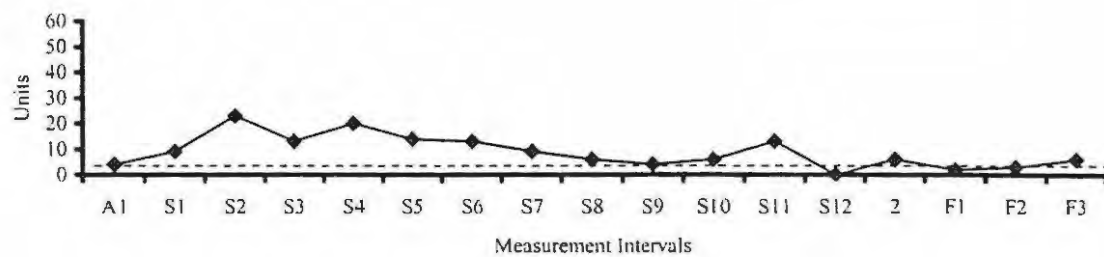
Figure 15

POMS scores for LR for Tension, Depression and AngerTension

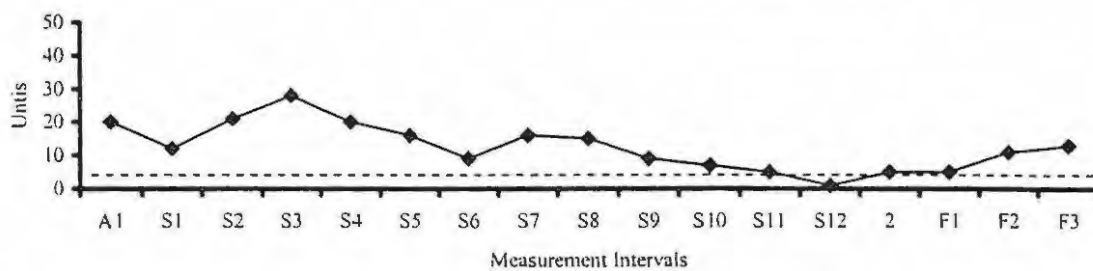
Healthy Av: 4.5 (---)

Depression

Healthy Av: 3 (---)

Anger

Healthy Av: 3.5 (---)

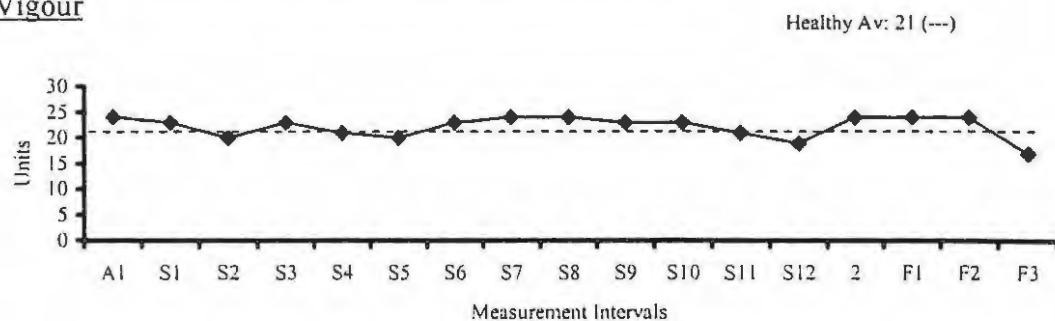


## Key to interval scale:

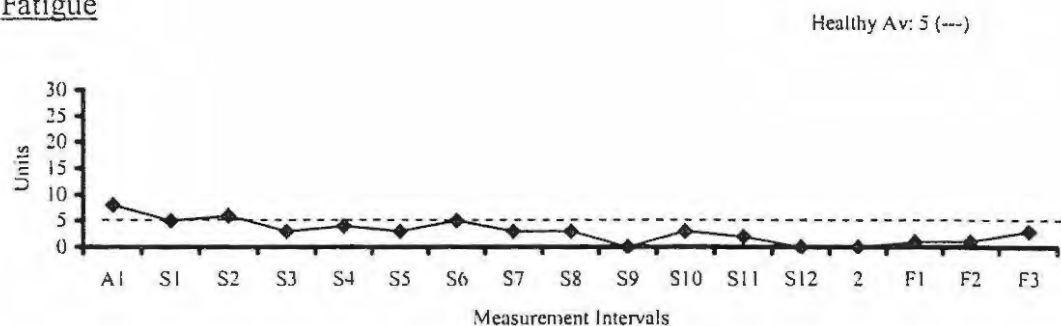
A1: Pre programme assessment interview	F1: Six-week follow-up interview
S1, S2 etc: Weekly group sessions	F2: Eighteen-month follow-up interview
R2: Research interview (R1 between S5 and S6, no scores)	F3: Follow-up after individual sessions with the researcher

**Figure 16**  
**POMS scores for LR for Vigour, Fatigue and Confusion**

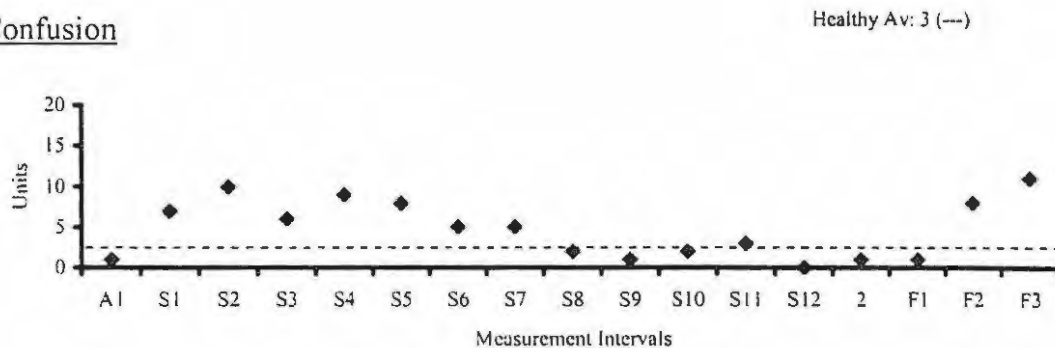
Vigour



Fatigue



Confusion



Key to interval scale:

A1: Pre programme assessment interview	F1: Six-week follow-up interview
S1, S2 etc: Weekly group sessions	F2: Eighteen-month follow-up interview
R2: Research interview (R1 between S5 and S6, no scores)	F3: Follow-up after individual sessions with the researcher

manifestation of the disease and in his recovery from a severe MI, exercise itself was not sufficient to prevent the development of CHD.

(e) Session 1: Introduction to one another, the programme, relaxation, how the heart works and coronary heart disease risk factors. Group discussion on heart attack experience and prescribed medication

LR shared his experience of his heart attack with the group and said how frightening it had been for him to not know what was happening. In his feedback form he indicated that the most outstanding experience of the session for him had been sharing his experience with others, rating this as a 4 (see Appendix KK). He also noted on the feedback sheet that he felt reassured that individuals in the group had gone through similar experiences and had learnt from hearing how others had coped with their MIs. The discussion about the medication being taken was also very helpful for him and he rated this as a 4 on the feedback sheet (see Appendix KK). The group experience and the support offered by other participants was therefore a very positive experience for him.

In the general group discussion the issue of mortality was raised. LR indicated that he was not at all afraid of death because of his theology training and believed in life after death. He wished that he had had a by-pass operation instead of an MI because with CABG surgery, he would know that some reconstruction had been done and that this would be reassuring for him. With an MI he had to trust that his heart was continuing to work as before, in spite of the attack and without any proof that anything had in fact changed. His insecurity about what procedures had been carried out on him was probably due to the first unsuccessful PTCA. The group discussion provided a supportive and

caring environment for him to voice these concerns and he rated all aspects of the group experience of this session as a 4 on the feedback sheet (see Appendix KK).

(f) Sessions 2 to 4: The Type A behaviour pattern

LR joined in the group discussions but was not as vociferous as some of the other group members. In the feedback form he wrote a note to the group leader asking her to inform the group that silence was also a form of participation and said that he had not appreciated AvR's goading him to talk. His comment highlighted the importance of facilitating the group discussions so that individuals could become involved at a level at which they felt most comfortable. In addition, his more passive way of engaging in the group discussions indicated that this too, as opposed to active participation, was a way of deriving benefit from the programme.

LR was very open to the concept of the TABP and identified with a description of the various behavioural components of the pattern. The aspects of competitiveness, anger and hostility, time urgency and the stress and the stress response were well received by him and he rated the clarity of presentation and his understanding of these concepts with a 4 on the feedback sheet (see Appendix LL). He also rated his understanding of the concepts of developing a caring self-monitor and how one's underlying belief system contributed to behaviour as a 4 (see Appendix LL).

LR meticulously completed his Self-Monitor homework sheet (see Figure 17), but at this point in the intervention was unable to understand that the self-critic's response was his own response to the situation. Instead he relayed how the other person criticised him.

Figure 17

Self-Monitor homework sheet for LR

Date	Situation	Behaviour	Emotion	Critic's Response	Self-Monitor's Response
7/02 2002	Rushing to church, stopped to pet my cat. cat kissed and scratched me	I hit the cat with the umbrella which happened to be in my hand.	Anger Stress	Cat ran away and hid for 3 hours	Later, I was sorry for what I did
12/07	Received letter from USA. Pension dept. stated Pension cut off due to mistake made by them (or me)	Drove too fast to U.S. Consulate. Felt frustration.	Anger/Frustration Stress	It is their fault (USA pension dept) OR may be mine	Had to bottle-up anger/frustration because you get less if crier they.
15/07	Maid left laundry out. Rained all night. washing wet next day	Looked v. cross	Exasperation → frustration → Anger stress	Sullen silence	wanted to hit her but from restraints and myself again.
18/07	At 8:00 PM party. Time (11:30 PM) for us to leave. John (old friend) aggressive restraints me from leaving	I ignored him and ushered Ryle + myself out immediately	Frustration by John (friend) lack of finesse	"You must do as I want - you must stay (no thought of Ryle + my needs)" He feels I am in a hurry to go - says "come see how I 'act'" I believe he may be	could not get away from John quickly enough wanted to be alone with Ryle.
20/07	Different dinner party, but same John and guests. At 11:45 PM I am ready to leave. John again tries to discourage my intention of leaving	I told John in front of all that he v. annoying esp. when it led.	Angry, but unable to contain myself - Just -	When I went there after a couple range on phone sister set nothing	I am v. annoyed with John, as since then in days.
21/07	Sister from I bring here visiting her daughter on Sun day, decided to go there for lunch. Called sister who said "Don't come (I do not know why)"	I would talk to her conversation abruptly.	I hurt deeply.	But her daughter was angry with me.	I decided to say nothing after reaching sister's home. But saying nothing was frustrating.

Date	Situation	Behaviour	Emotion	Critic's Response	Self-Monitor's Response
22/07 2002	Agnese's strict house rule, M said opened the door to s for agnese. Rule often repeated and often broken.	I was very angry as the 'guest' was v. much unwelcome.	Very angry "Skilled <del>hand</del> hear it"	I don't know why I said it.	My anger seems to coalesce on this word. Why do I over react? OR Am I over reacting?
23/07	Washing again left out over night. Much Rain	Went through rule + reasons for rule. Looked angry + sounded v. severe.	Shen frustration → anger	Sullen silence.	Must get maid out of the house - for at least a week. Frowned like he to settle but I have come to depend on her.
				This leaves me v. frustrated as she is physically part of my home + therefore a compromise before my privacy.	

This may have been an indicator of how much he perceived criticism to be inherent in how others related to him. After the group discussions in Session 3 he completed the same homework sheet again for two weeks (See Figure 18). This time he was able to identify his self-critic and could also counter the self-critical response with a caring self-monitor response.

The various homework exercises revealed how the TABP manifested behaviourally for LR and how this quiet, mildly mannered man was in fact very irritable and angry. On one occasion he hit his cat with his umbrella (see Figure 17, the entry for 02/07). He appropriately used the group as a sounding board to discuss this experience and was still visibly upset and quite ashamed of his loss of control and the resultant behaviour. All his fuse behaviour on the Bombs and Fuses homework sheet (see Figure 19) was a reaction of either anger or frustration to a situation. He did not correctly complete the form even with examples. His fuse behaviour was often expressed as time urgency in the form of rushing and driving fast (see entries for 07/07 and 12/07). It is interesting that although he drove fast to appointments and parked his car illegally at the airport because he was in a rush (see Figure 18, entries for 31/07, 06/08 and 07/08), he did not perceive his behaviour to be time-urgent on the JAS (see Figure 13, p. 193, score for Speed and Impatience).

LR rated the presentation on Time Urgency in Session 3 with a 4 for understanding and clarity, but said very little during the discussion, rating his satisfaction with the group experience as a 2 (see Appendix MM). The group were working with an incident reported by AvR and LR felt that too much time was being wasted. He became visibly

L.R. July 2002

Date	Situation	Behaviour	Emotion	Critic's Response	Self-Monitor's Response
23/07 Tues.	Older Sister, visit for as yet indeterminate amt. of days. Maid Eve off sick. She is negative re Ryk.	<del>Again</del> I criticise Sister for her attitude.	I am hurt and sad.	I am not empathetic, I should try to see her side. She has <u>not</u> met him.	I should try to see her side.
25/07 Thurs.	Sister still not saying when she is leaving. Asks when is this "I need to stay with me."	Again I ask her to be more respectful of him. She responds "well I don't know him".	Hurt because I know that she disapproves of my sexuality etc.	I am not willing to compromise my nature.	I should be patient and more kind.
26/07 Fri.	Sister ill, decides to return to daugali tomorrow, 27/07.	I did not discourage her to leave.	felt the dilemma of wanting to help but of wanting her to go.	I am not the best kind of brother at this moment.	It's difficult to co-exist in this kind of situation. I don't know the solution in the long term.
27/07 Sat.	All through this week I am stressed by Ryk's absence. Sister leaves 12:00 Noon.	It is an underlying stress which I feel throughout but cannot share.	I am very stressed every hour of every day by this.	I am not coping at optimum level.	I must try to calm down.
28/07 Sun	Ryk here until 29/07.		At peace + Happy.		
29/07 Mon.	Ryk left early.	After Sports sc. @ Ym I had no energy all day. Slept in afternoon.	felt low all day.		I must cope much better with this stress as the circumstances of our separation will not change.
30/07 Tues	Same as Monday!				
31/07 Wed.	Maid returned off the pills ran over carpet.	I criticise her for yet another stupid act.	Frustration + anger.	I am impatient.	I must not let small things get to me.

Second Self-Monitor homework sheet for LR

Figure 18

Boy With Cane

Date	Situation	Behaviour	Emotion	Self-Critic's Response	Self-Monitor's Response
2/1/04	Went to see the boy with a cane at the school assembly	Private I was a bit awkward	Embarrassed	I was a bit awkward I was a bit awkward I was a bit awkward	A weird click I was a bit awkward I was a bit awkward
2/1/04	At the school assembly	Private I was a bit awkward	Embarrassed I was a bit awkward	I was a bit awkward I was a bit awkward	I was a bit awkward I was a bit awkward
2/1/04	At the school assembly	Private I was a bit awkward	Embarrassed I was a bit awkward	I was a bit awkward I was a bit awkward	I was a bit awkward I was a bit awkward
2/1/04	At the school assembly	Private I was a bit awkward	Embarrassed I was a bit awkward	I was a bit awkward I was a bit awkward	I was a bit awkward I was a bit awkward
2/1/04	At the school assembly	Private I was a bit awkward	Embarrassed I was a bit awkward	I was a bit awkward I was a bit awkward	I was a bit awkward I was a bit awkward
2/1/04	At the school assembly	Private I was a bit awkward	Embarrassed I was a bit awkward	I was a bit awkward I was a bit awkward	I was a bit awkward I was a bit awkward
2/1/04	At the school assembly	Private I was a bit awkward	Embarrassed I was a bit awkward	I was a bit awkward I was a bit awkward	I was a bit awkward I was a bit awkward
2/1/04	At the school assembly	Private I was a bit awkward	Embarrassed I was a bit awkward	I was a bit awkward I was a bit awkward	I was a bit awkward I was a bit awkward

CODE NAME: L.C.

**Figure 19****Bombs and Fuses homework sheet for LR****WORK SHEET: SESSION TWO****BOMBS AND FUSES**

In this exercise, the *Bomb* is identified as the heart attack, occluded coronary arteries, or cardiac denial. The Bomb can be detonated by any of the following *Fuses*:

- A. Type A behaviour pattern (TABP), especially anger and impatience.
- B. Excessive and prolonged physical exertion at a high altitude (i.e. above 5 000 ft).
- C. Excessive and prolonged physical activity to a state of exhaustion.
- D. One extremely heavy-fat meal.
- E. Chronic mental and emotional exhaustion.
- F. Excessive use of caffeine.
- G. Chronic abuse of alcohol.
- H. Excessive smoking.

These *Fuses* are commonly experienced risk situations which, over time, will put you in jeopardy of exacerbating your heart disease risk (Bracke & Thoresen, 1996). Use the following work sheet outline to identify potential *Fuse* behaviour.

July 2002

Date	Situation	Fuse Behaviour (Note A, B, etc)
7/07	Rushing out to church, stopped to pet the cat. Cat Hissed + scratched me	hit cat with umbrella.
12/07	Got letter saying pension from USA cut off due to bureaucratic mess-up	Drove fast + recklessly to Consulate. Frustrated because I had to restrain my anger and anxiety.
15/07	Against my rule, the Maid left laundry on line. Rained all night. Washing wet next day	Shouted at Maid, displayed anger - loss of personal dignity for us both
18/07	11:30 pm. Time for Ryk and I to leave B'day party. "Old friend" presses us to stay on (enjoyingly)	I ignored his loud (embarrassing) pleas, exited with Ryk in angry haste
20/07	Different party, same "old friend" present too. When the evening drew to 11:45 pm I was ready to leave. He again comments + tries to hinder me.	Told him in front of 6 other guests that I find his behavior very annoying, not hiding my feelings this time
21/07	Sister from J.burg visiting daughter + family in Langford. I decided to drive there for lunch, although not pre-arranged. Sister said "Don't come"	I was hurt + ended telephone conversation angrily.
22/07	Against home rule, Maid opened the door to stranger. Rule frequently given + often broken	Very angry "skelled haar uit"
23/07	Washing again left on line over night. Mutha talk, met in A.M. in spite of my request, might before to bring laundry in house.	Angry. went through the rule again with her. Told her that she might consider retirement soon.

\* Note: everyday, I am stressed out by the fact that my lover does not live with me or even near - I miss him every hour and he feels the same way. I am trying to ease this stress through mind power [Alpha] controls. Usually when we are together I am at peace and v. happy. This has been going on for 6 months. I believe the stress is building up accumulatively. It starts as soon as we have to part.



frustrated and in his feedback form he expressed that he had wanted to move on to other material. He was also most unhappy that the group leader went over time again by 10 minutes. He was clearly disgruntled by these events and this prevented him from working with the experience in the group. He seemed to need a degree of control over his experience in terms of when the sessions would finish. When thwarted in his achievements he became frustrated, a sign of the Hard-Driving and Competitive component of the TABP. He enjoyed completing the set exercises on the homework sheet for this session (see Figure 20) and felt that it revealed how he left everything to the last minute and how this resulted in time urgency.

In Session 4, LR rated his understanding of all the concepts concerning attitudes and belief systems that were presented as a 4 (see Appendix NN) but as mentioned above, his homework sheet revealed that he had difficulty in formulating his underlying belief system (see Figure 21). His comment for the entry made on 01/08 reveals his underlying insecurity about not being able to cope emotionally with being separated from his partner. His neediness in his relationship was also expressed in the number of text messages sent and phone calls made as an attempt to deal with some of his anxiety when his partner was absent (see Figure 19, entry 31/07).

Although the homework exercises in this section of the intervention were invaluable for assisting LR to identify his TABP, it was evident from his responses that he had difficulty identifying the psychodynamics of the pattern in his own make-up. Even after including examples, he was not always able to complete the forms correctly. An understanding of some of the concepts could not, therefore, be accomplished by simply completing a

Figure 20

Time Urgency homework sheet for LRDAILY BEHAVIOUR EXERCISES

Please note the exercise marked for each day of the week and practise that particular behaviour for the whole day. On the sheet, make a note of how it felt to do the exercise. Note if you found it easy or difficult. Also note which ones you would like to incorporate into your daily routine.

Day of the week	Behaviour to be practised	Your comments
Monday	Walk, talk and eat more slowly.	Difficult as all my exercise is geared to fast activity
Tuesday	Practise doing one thing at a time	not a great problem to do this
Wednesday	Drive in one of the slow lanes.	Keep forgetting to stay in slow lane but will try this exercise more often
Thursday	Try to schedule your morning before work so it is not rushed; ideally give yourself a little idle time.	This I do. It is part of the Alpha mind power procedure
Friday	Ask family members about their daily activities.	This I do as I am 'trained' through my career, etc.
Saturday	Leave off your watch.	Sorry, I forgot to do this. (Could this be meaningful!)
Sunday	Alter one of your usual habits or ways of doing things.	did not work with me.

I always leave everything to the last minute, thus meeting deadlines "just" and working 'hard' in this way. This means a rush to make it on time, whatever it is. So this kind of exercise is very useful and most appropriate for me.  
Thank You. LR.

Figure 21

Underlying Belief System homework sheet for LRCode Name: LR

Date	Bait Situation	Hook Attitude	Underlying belief system
30/07	Late for 6.30am Wateraerobics class	Too many red traffic lights + obstructive cars for so early + I "curse" them internally	I am working on my problem of punctuality because that makes me feel better about my self
30/07	Discovered that I missed important church meeting	Why do I get myself involved with this group	I am blaming the group for my mistake. I must take responsibility for my actions.
1/08	Missing partner so send SMS, but no reply	Assume that Partner doesn't care enough. Why the silence?	I must be man enough / Adult enough to cope by being secure enough in my self and in him.
2/08	Car towed away at air port.	Fear in case car was stolen. Anger it was taken away by Police	When renewing my ves/plate I was not as stressed as other drivers at the police station to claim their cars. I must be more careful to avoid stressful situations

homework sheet. These required some further theoretical and practical input from the group leader, a reworking of the homework sheets to include examples, some feedback about how to complete the sheets and practice by LR. Thereafter LR's homework sheets indicated a progression in his understanding of the psychodynamics of his TABP.

(g) Sessions 5 and 6: Identifying and expressing feelings, listening with empathy and effective communication

Although LR was easily able to identify his feelings in Session 5, he felt only somewhat confident about changing his style of communication (rated as a 2 on the feedback sheet, see Appendix OO). He also did not feel at all comfortable (rated as a 0 on the feedback sheet) to share his feelings that he identified in the meditation exercise. In spite of this, he was very satisfied with, and enjoyed, all aspects of the group experience for this session, rating them as a 4 on the feedback sheet (see Appendix OO). In Session 6 he worked with one other group member and felt extremely confident (rated as a 4 on the feedback sheet, see Appendix PP) about his ability to listen with empathy without giving advice, being reassuring and using own testimonials about similar situations. He felt that his role as a priest in providing support and counselling had enhanced his ability to feel comfortable and successful with this exercise and an observation of the small group process confirmed this. He remarked that he was better able to listen to others expressing than he was able to express his own feelings. Sometimes, talking left him feeling more anxious because as he spoke, he became more aware of his feelings. He again enjoyed the group experience and rated all aspects of this session with a 4 on the feedback sheet (see Appendix PP). He completed the homework sheet for Session 6 (see Figure 22), which was a summary of all the concepts thus far. Although he only noted two incidents,

Figure 22

Session 6 homework sheet for LR

Situation	Behaviour	Emotional Reaction	Fuse Behaviour	Bait	Hook	Belief System	Self-monitor
Driver hoots at you.	You shout, make a fist, drive faster.	Anger.	Shouting, Type A behaviour pattern.	Another driver shouts at you.	Who does that person think s/he is to hoot at me.	I have a right to be on the road. I am such a good driver. I wouldn't do that.	Calm down, it's okay to get angry.
My cell phone rings at 8:30pm while at a restaurant.	I answer, but it goes dead. after I see it's my LOVER.	Frustration to anger	Try call back to reconnect but can't figure out how to redial his number!		Bladdy cell phone! It's not user friendly	This phone should always work when I want to use it I have right to be frustrated	I must practice patience. We exist under difficult circumstances I can call on land line when I find correct number at home
A woman calls on phone. she is known to have betrayed my friendship	I don't react. Instead I respond "sweet by" on the phone	Nasty feelings of self-deprecation inside me	I suppress my feelings thus hurting myself more		How dare she call me	I was her friend, how did she doubt my honesty + integrity?	I know that I should forgive her for this. For this moment I best keep my reactions of hurt + betrayal on hold.

MB  
Bait it straight out  
can't make thing

it was evident that he was starting to identify his patterns of behaviour and belief systems and to give a caring self-monitor response.

His feedback at the research interview held at this point was that he felt very positive about what he had learnt on the programme thus far. Pertinent for him was how to understand and recognise stress. He was aware of his poor time management and was still learning how to recognise his particular stressors. It was also very reassuring for him to know that others too experienced anxiety. He could see how anxious he was in his lover's absence and felt annoyed with himself for reacting in the way that he did. He believed his reactions were based on events that occurred in the first 10 years of his life, namely when he was hospitalised, when they went overseas without his father and being sent to boarding school. He was therefore developing a level of understanding with regard to his behaviour. He expressed feeling positive about changing his pattern of behaviour.

(h) Sessions 7 to 9: The compensatory nature of the Type A behaviour pattern

LR responded extremely well to the theoretical concepts presented in Session 7, rating the questions about presentation and understanding with a 4 on the feedback sheet (see Appendix QQ). He felt "insightful and introspective" after Session 7 but mentioned that he was "not yet ready or willing to reveal all" to individuals within the group. He felt that this reaction had a lot to do with his past as a person who had to live in the shadows as a gay child and later as a gay man. In the small-group discussion in Session 8 he worked with AvR and the group leader's colleague and very much enjoyed the experience of working in pairs, rating this as a 4 on the feedback sheet (see Appendix

RR). He also rated his ability to listen with empathy as a 4 on the same feedback sheet, although he noted that he still seemed to need to give advice (see Appendix RR). He had an opportunity to discuss his personal Triangle of Relating pertaining to a recent incident where he was late for an appointment with a principal of a school (see Figure 23 for homework sheet). The principal's comments had been negative and hurtful. In the discussion he was able to go back to his own difficult school experiences and found the exchange very useful and informative for unravelling why he felt so uncomfortable with authority figures. He found this session extremely beneficial and rated all aspects with a 4 or 3 on the feedback sheet (see Appendix RR). In Session 9 he worked in a small group of three and the group members encouraged him to share the story he had told them with the bigger group. The group declared it to be "a very good example of how the mind can dictate behaviour". The small-group members had asked him if he had ever been late for weddings or funerals and he had immediately responded with "no never". Then he remembered that four years ago he had actually forgotten to attend a wedding. He related driving with a fellow priest from Malawi on a lovely Saturday afternoon to a seaside suburb of Cape Town. On the way there at 15h15, he remembered that the wedding was at 15h00 and told his companion so. His companion said, "Oh, Father, that's a bad one." LR responded, "What am I to do?" "You should say you've had an accident" replied his companion. LR had never contacted the people concerned and the incident still worried him.

In the large-group discussion he said that it had been a mixed marriage between two individuals from different religious denominations. When he had gone to the wedding rehearsal, he had wondered why he was there as he was not actually performing the



ceremony. As a result of the larger group discussion he was able to acknowledge that he had not approved of the mixed marriage, that he felt he had been asked to go to the wedding as a “token” and that he was not really needed at the wedding. Until the group discussion he had not been consciously aware that he disapproved of the mixed marriage and was therefore unaware of his motivation for forgetting to attend the ceremony. His story was an extremely powerful example for the whole group and helped them to understand how everyday behaviours can have their origins in motivations of which people are unaware. His rating of the session was again very positive (see Appendix SS) and in a personal note to the group leader on his feedback form, LR indicated that the open discussion with the larger group had been the most outstanding aspect of the session for him and that the group leader’s facilitation of his experience had been extremely helpful for him.

(i) Sessions 10 and 11: The lived body and the mind-body connection

In the first of these two sessions, LR responded to the group discussion on everyday language that is embodied by saying that for him, the function of the heart was not so much that of an engine as it was a centre or fountain of the source of life. From a religious perspective, he saw a heart attack as an assault on the soul make-up, which is seated within the heart. He felt that the exploration that was being carried out in the session alerted him to the fact that he could take control of his thought patterns as well as his health, thereby ameliorating the chances of a second heart attack. He felt sure that his daily attitude and meditation assisted him in his belief that the body causes its own problems and carries out its own healing.

LR rated his ability to come up with everyday language that is embodied as a 3 on the feedback sheet (see Appendix TT). At some point in the discussion the group leader pointed out to LR that he spoke about his body in the third person as “the body”, rather than “my body”. As a result of this awareness, he wrote a note to the group leader on his feedback sheet that he felt empowered by the thought that if he had had something to do with “creating his illness, then he could have something to do with creating health”. He also was beginning to see a connection between past experiences and present feelings and behaviour. His response to the healing relaxation in Session 11 was very positive. Although he rated his experience of the discussion as a 4 on the feedback sheet, he noted that he felt only somewhat comfortable (a 3) to share his experience with the larger group (see Appendix UU). He again indicated an increased awareness of how past experiences had contributed cumulatively towards his heart attack in a note to the group leader on the feedback form.

(j) Session 12: Summary of past 11 weeks and closure

LR was fairly quiet in this last session and commented on his feedback form that he thought AvR had dominated the session. Nonetheless, he rated his experience of the group as a 4 on the feedback sheet (see Appendix VV). He expressed that if he had had the kind of knowledge gleaned from the sessions 20 years ago, he could have prevented some of his health problems. In spite of the various goodbye rituals (see Chapter 4, section 4.9), for LR the end of the programme evoked strong feelings of separation anxiety and these needed to be dealt with in the follow-up session. He enacted his separation anxiety by arriving at the researcher’s house the next week at the usual time for the group meetings. He had wondered why there was no meeting at the hospital and

had spent some time walking around the venue at the hospital looking for the group. He finally decided to come and look for the researcher at her home. She noted his extreme anxiety and difficulty with separating but as they were scheduled to meet the next day for a follow-up interview did not deal with this entirely at that moment.

When she raised the issue at the follow-up interview he said that only as he drove away from her home the previous evening did he acknowledge to himself that members of the group had in fact said goodbye to one another. Up until that point he had completely blocked this from his awareness. He said that he had felt more of a bond with the group leader than with the group members and that he felt more comfortable in the one-on-one situation with her than with the group. He also said that his mother had died at the same time the previous year and that he felt that saying goodbye had evoked his separation anxieties about her death. Saying goodbye to the group leader had therefore evoked an enormous amount of separation anxiety.

At this second research interview one week after completion of the study, LR indicated that the range of concepts introduced had become increasingly useful as he practised and internalised them. The practice sheets had made him aware of his TABP and he noted that he progressively gave moderated rather than exaggerated responses to daily situations. He found the concept of the unconscious mind very enlightening and useful as a way of understanding why he reacted in the ways that he did. He saw that the more he got to know himself, the more he could manage his behaviour. This created a feeling of balance for him. He could not remember the content of the lecture on defences and narcissism and felt that a lot of material had been covered in that particular session. The

lecture on the mind-body link had created a new awareness for him and empowered him to take charge of his health. As a result of the programme he had become more aware of the “other” in interactions and was less inclined to impose his will. This aspect of the programme had helped him to improve his communication with his partner. His final comment about the programme was that he felt positive that as time went on he would continue to integrate the information.

(k) Follow-up and summary

Six-week follow-up: At this interview he reported feeling much less tense. He was particularly aware of self-imposed stress that arose from rushing and was working to change this by not leaving things to the last minute. He no longer arrived late at his exercise class and as a result his resting blood pressure level had improved. This had also been very encouraging and reaffirming for him. The insight into his behaviour had therefore been actualised in a practical way. People had reported that he looked distressed and that he seemed happy. He felt that he had learnt to control how he reacted and that this had empowered him. He also understood the childhood separation issues better but still struggled with how he felt about them, saying that some individual therapy would be helpful.

Looking back on the programme he felt that listening to the symbolic meaning of his language was very enlightening as well as being able to evaluate and examine his behaviour to “get himself out of the stew”. The concept that he used most from the programme on a daily basis was the “cellar of the mind” (i.e., the unconscious mind). In addition, he recalled the importance of experiences in daily life as a useful mirror for

learning about himself. On a daily basis he used the relaxation and visualisation exercise of discarding whatever stressed him into a pool of water and watching it lose its intensity. Finally, he expressed that he missed the programme as he had felt so part of a group that he could identify with.

Eighteen-month follow-up: LR reported that he was handling stressful situations differently and that he felt calmer in himself. He had also received positive feedback from his half-sister who said that he had changed in the last two years in that he was stronger and a lot more patient. Although his personal relationship added in part to this feeling of stability, he reported that the programme contributed to an experience of “ease of living”. He also believed that he coped with his work better and that he did not go into the stress response as easily as before. At the time of entering the programme he had been particularly concerned about his “mortality”. This was not due to a fear of death but due to wanting to have more time to enjoy his life with his partner. Now he was feeling very involved in life and was occupied with thoughts of his “vitality” and how he could approach the age of 70 without losing this energy.

Individual sessions: After this interview the researcher offered LR a series of eight individual sessions. One of the central themes addressed in the sessions was his separation anxiety and how this linked to his neediness in relationships. The researcher facilitated a process by which he could talk about the contributing experiences and in doing so he was able to understand how his past experiences had continued to impact on his life as an adult. Through the therapeutic process, he was able to gain insight into how to manage and process the feelings about these specific events. As a result, he was able

to adapt the therapeutic experience of processing specific feelings about an event to processing feelings on a daily basis outside the therapy room. His concern about his age and pending 70<sup>th</sup> birthday was a topic of concern and he was able to understand how he had used his looks and youth as a compensation for his insecurity, low self-esteem and worth as a person. The researcher was very conscious of the need to work with any possibly separation anxiety that would arise at the point of closure after the eight sessions and working with this helped LR to end the sessions with her without any level of anxiety. This was a positive shift from how LR had experienced the ending of the 12 weekly group sessions.

Scores on the various scales: LR exhibited an increase in tension, depression, anger and confusion for the first four sessions of the programme (see POMS scores, Figures 15 and 16, pp. 196 - 197). His partner was away during this time and his scores were negatively affected by this. Thereafter his POMS scores continued to improve until the end of the programme. Thereafter they worsened slightly. His level of fatigue improved throughout the programme and his level of general vigour remained at the same acceptable level (see Figure 16, p. 197).

By the end of the programme LR's scores on the Speed and Impatience and Hard-Driving and Competitive components measured by the JAS varied by more than five standard scores, indicating marked negative changes (see Figure 13, p. 193). That is, his profile worsened. At six-week follow-up his global Type A score had also increased by more than five standard scores from when he was assessed at the beginning of the programme. LR explained that as his awareness of his problematic behaviour increased, he became

more realistic in terms of how he perceived his TABP. Hence, when he completed the JAS at the end of the programme he had a greater awareness of how he manifested the TABP and his scores therefore reflected the reality that he was more Type A than he had perceived at the commencement of the study. The negative change in his scores at six-week follow-up may well have been influenced by his anxiety about not attending the programme. This is borne out by the increased tension-anxiety score on the POMS for this period (see Figures 15 and 16, pp. 196 - 197).

At 18-month follow-up, before the individual sessions, his global Type A and Hard-Driving and Competitive scores had reverted to where they had been at the start of the study, while his Speed and Impatience score was more than five standard scores lower than at the beginning of the study. He attributed this to using the knowledge about time urgency from the programme. He had therefore managed to improve his time-urgent behaviour and to maintain these positive changes. Because time urgency has been found to be most predictive of ill health, his improvement on the Speed and Impatience score is positive. After the eight individual psychotherapy sessions his global Type A score changed by more than seven standard scores, indicating that working on the separation anxiety and dependency issues had contributed to a marked positive change in his profile, as compared with his scores at the end of the intervention when they had worsened. For LR, therefore, working on the issues that maintained his pattern in addition to the exercises learnt on the programme, finally shifted his scores in a positive direction.

### 6.3 Case narrative three: EN

#### (a) Initial assessment, July 2002

The initial assessment with EN was challenging and exhausting and ran a total of two-and-a-half hours (30 minutes over the allocated time of two hours). He was very self-involved and did not connect with the researcher, often ignoring her questions or talking over her. He had a high level of anxiety, which was particularly evident when he was completing the questionnaires. He continually asked questions and indicated that he was afraid of making mistakes. His wife came with him to the interview and was very irritated when asked to wait in the waiting room. EN was extremely needy and demanding, showed a lack of respect for boundaries about time, and was entirely intent on having his questions answered, although he evaded most questions posed by the researcher.

#### (b) Background information

EN, a 58-year-old man, was born on 9 April 1944 on a farm in Zimbabwe. He was the third youngest of seven children. He proudly referred to his father as the “first White born in Rhodesia”. The family were initially well off but this was “spoilt” by his two older brothers who had lost all the money because of “physical fighting and excessive drinking”. The most that EN would admit to when asked about his experience was that he hid from this, feeling very terrified, and that these incidents were never talked about in his family. He would not relate much more about his childhood and his only reference to his parents was that he never really got to know his father, who kept himself separate from the family and had his own lounge. His mother was very Victorian in manner and paradoxically strict about some things but not others. For example, they were allowed to

buy cigarettes while at school. When his mother died in 1979, he tried to close her eyes but could not. He mentioned that this did not bother him at all. He summarised his childhood saying that he was determined to have a different relationship with his own children one day.

At the age of 19 he joined the Rhodesian army in the supply stores and said he “knew what it was like to shoot and be shot at”. He recalled in detail off-loading bodies from a truck and seeing one cut in half by a helicopter blade, describing how the shirt was still tucked into the trousers and how he could hear the blood gurgling. When asked to describe how he felt about these extremely traumatic experiences he avoided the question by replying “man we had good times”. He was unable to talk about the emotional impact of these experiences, speaking instead about his part-time committee work for the “military guys” and relating numerous unimportant incidents in minute detail.

He married at the age of 22 and has a daughter and son from this marriage. He described his marriage of 36 years as consisting of “rocky, hard times”. He spoke with a lack of regard for his wife: “I can’t say I love her, but I will never do anything to hurt her. I wouldn’t give up the old bag for anything. I’d die for her and I respect her.” He was unable to define love, saying he had no clue what it was and he defined respect by way of how he would not dare to look through her handbag. He was oblivious of his display of lack of respect towards her in terms of how he spoke about her. He felt that he had a good relationship with his children but did not elaborate further.

The immediate events leading up to his MI were unremarkable and he felt that it had come as a complete surprise. When assessed by the researcher, it seemed as though he was still in a state of shock about the suddenness of the event and she surmised that some of his extreme aggression was because of his fear about the life-threatening experience. He was, however, unable to talk about this in any way at the initial interview.

(c) Medical history and coronary heart disease risk factors

EN suffered a sudden MI about six weeks prior to the commencement of the study. He was completely surprised by this as he had experienced no warning signs of CHD leading up to the event. When examined by the cardiologist, it became evident that he had had a previous MI of which he had also been unaware. Leading up to the most recent MI, he experienced discomfort in his chest, which he ascribed to "wind". Some days later he developed severe chest pain, became sweaty, grey and clammy and took a dose of an over-the-counter remedy for flatulence to relieve the pain. He did not want to go to hospital or to "intrude on people" and delayed seeking medical help for 10 hours. By the next morning when he finally went for help he was in pulmonary oedema (i.e., his lungs had filled with liquid due to left ventricular failure) and he required assistance by way of ventilation. An angiogram revealed severe triple-vessel disease with a complete blockage in the RCA, a very diseased LCx and a totally occluded LAD proximally (see Figure 1, Chapter 1, p. 6). PTCA was carried out on the LAD with a good final result. Nine days after the MI he went into cardiac arrest with fibrillation and vaguely recalls the resuscitation paddles being used on him. As a result of the cardiac arrest, a pacemaker was inserted. He reported feeling as if in a drunken stupor for most of the time that he was in the hospital and remembers little of the procedures.

He was uncertain of his genetic history, saying only that his oldest brother had undergone “open heart surgery with Professor Christiaan Barnard for a valve replacement”. His primary risk factors were cigarette smoking of 20 per day and he was prescribed cholesterol lowering and anti-platelet medication. Although his cholesterol was only 5,2, the ratio between the good and the bad cholesterol was poor, making him a high-risk patient for CHD. He had no insight into the possible causes of his CHD. In respect of secondary risk factors in terms of healthy eating he said: “Why should I watch my diet when I don’t have a weight problem?” He had a healthy BMI of 23 before his MI (height 1,8 m and weight 73 kg). During the time in hospital he said his weight went down to 49 kg (a BMI of 15). He claimed that he did not know what stress was but if it was worry then he could identify with that. He challenged the researcher when she asked if he knew what prescribed medication he took. He said that, without question, he did what the doctors told him to do. He “just took his tablets” without knowing the name of the medication or what it was for, saying he “just puts blind faith in it”. He was somewhat appeased when asked what he would do if he were out of town and needed to renew his supply of medication or if in an emergency he was asked what he was taking.

(d) Formulation

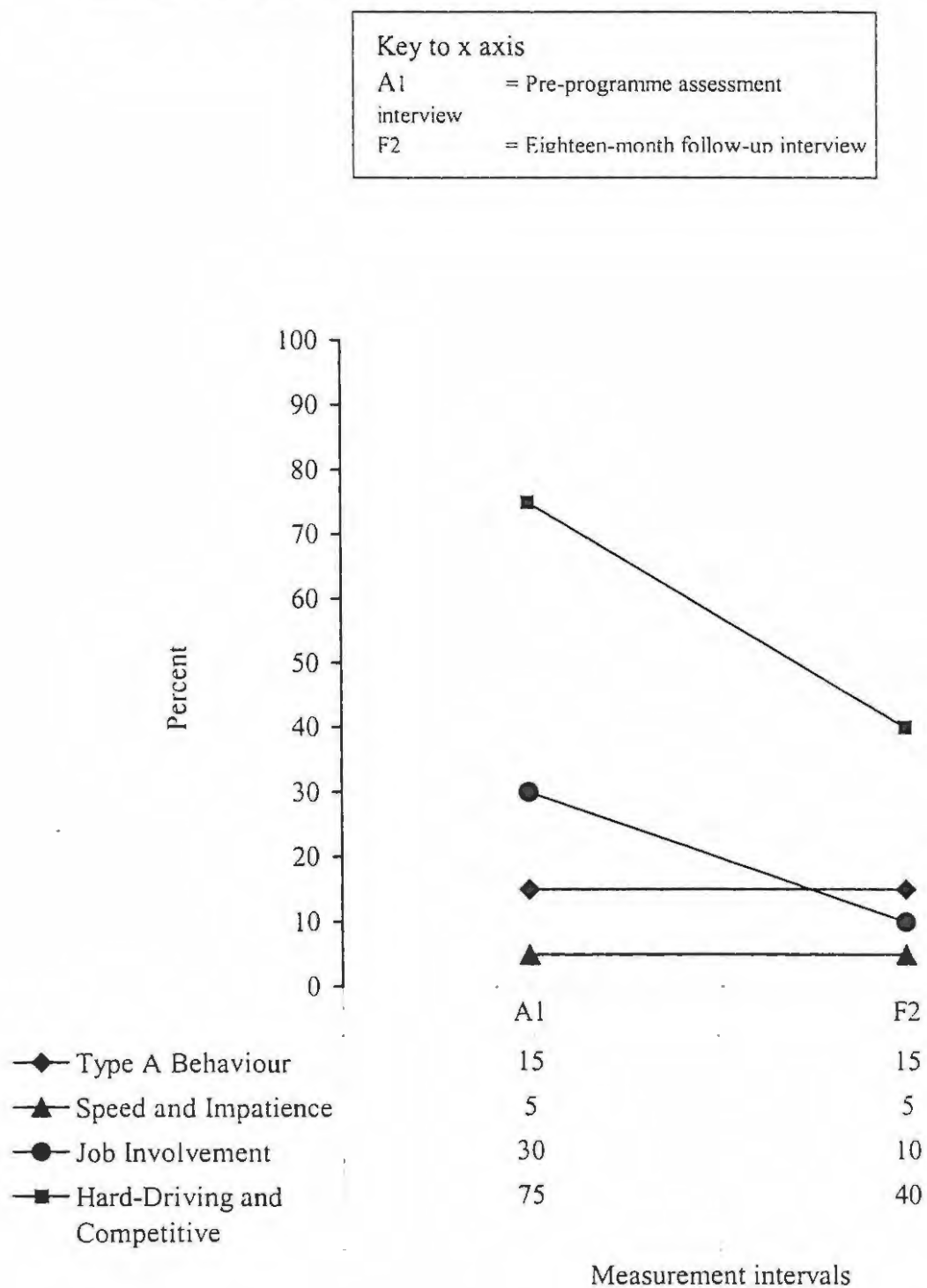
EN was disconnected from his feeling world and any attempts to work with this aspect of him were met with denial and aggression. It is uncertain how much of this aggression and denial was due to his joining the programme just six weeks after his MI, as he was still in a state of shock and he had not yet come to terms with the experience. Although he generally presented with an air of bravado and tended to minimise the implications of

his CHD, it is uncertain how much his feelings of helplessness about his MI experience contributed to this.

He blocked any potential for the development of a collaborative alliance or for the opportunity to obtain information about his family background. From the brief information that he did offer, his mother espoused Victorian values where emotions were not appreciated and his father was aloof. As a result, his emotional world was entirely neglected. He was extremely narcissistic and self-involved and this added to the difficulty of trying to gain an understanding of him. A clinical assessment of EN indicated that denial was probably part of his pre-morbid personality pattern as he was generally in denial of his emotions. The advent of his MI most certainly exacerbated this denial of emotions. Although the presence of denial in MI survivors is a common occurrence and may even be adaptive during the acute phase of hospital recovery, its ongoing presence after discharge will be maladaptive. This was the case with EN where his denial of his emotions and the implications of his MI prevented him from staying on the programme.

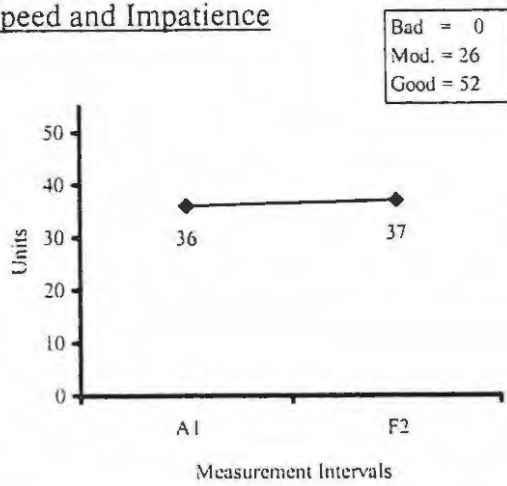
His scores on the JAS at the commencement of the study reflected a Type B profile, with only a high Hard-Driving and Competitive score of 70% (see Figure 24). The JAS scores concurred with those in the SRS (see Figure 25), where his spouse rated his behaviour as normal. All his POMS scores were out of the normal range and he exhibited high tension, depression (see Figure 26), fatigue and confusion and a low level of vigour (see Figure 27), although he denied any such feelings in the assessment.

Figure 24

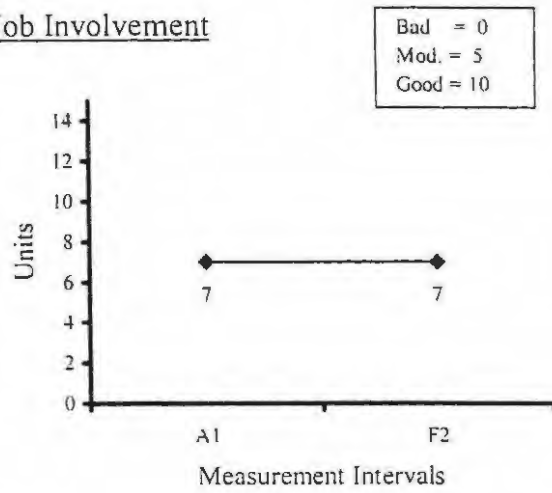
Jenkins Activity Survey scores for EN

**Figure 25**  
**Spouse Rating Scale for EN**

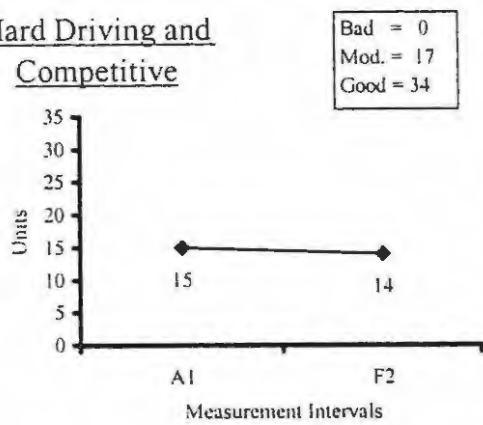
Speed and Impatience



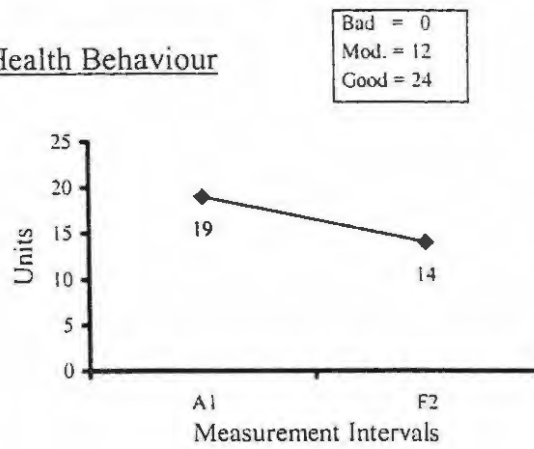
Job Involvement



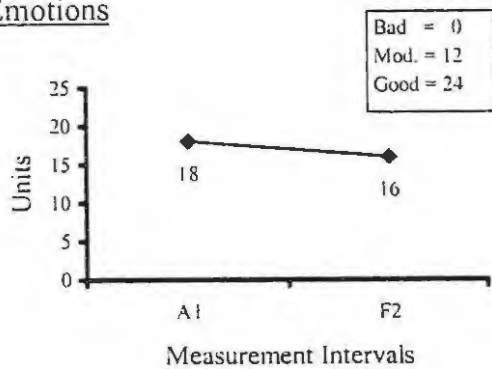
Hard Driving and Competitive



Health Behaviour

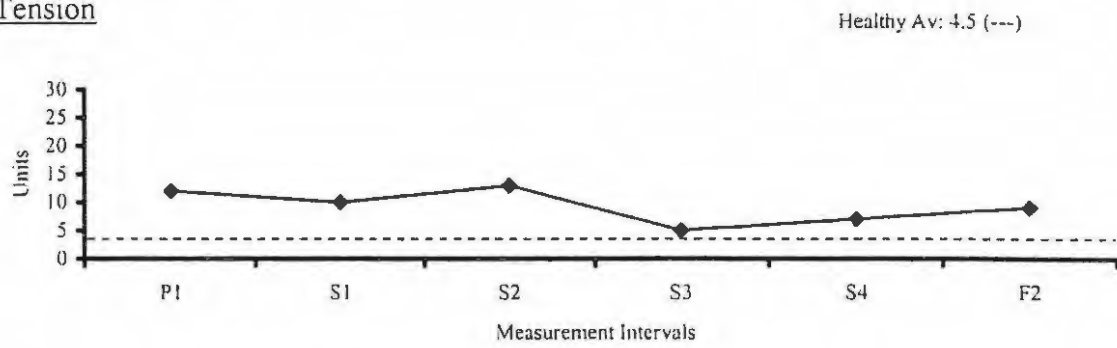
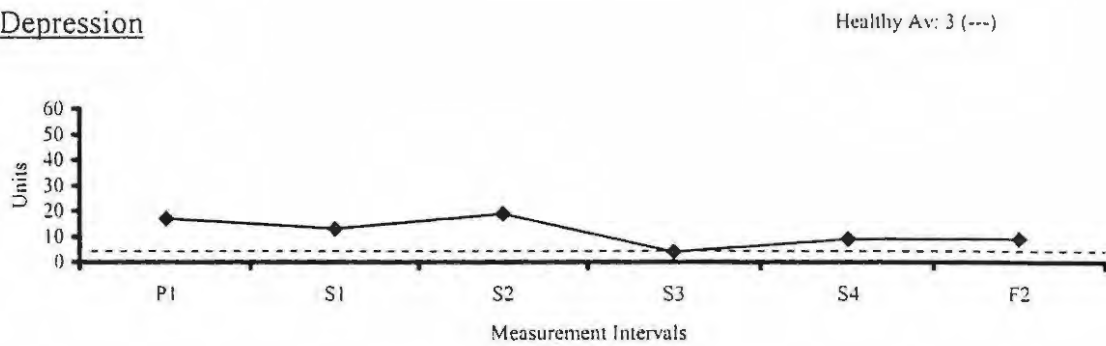
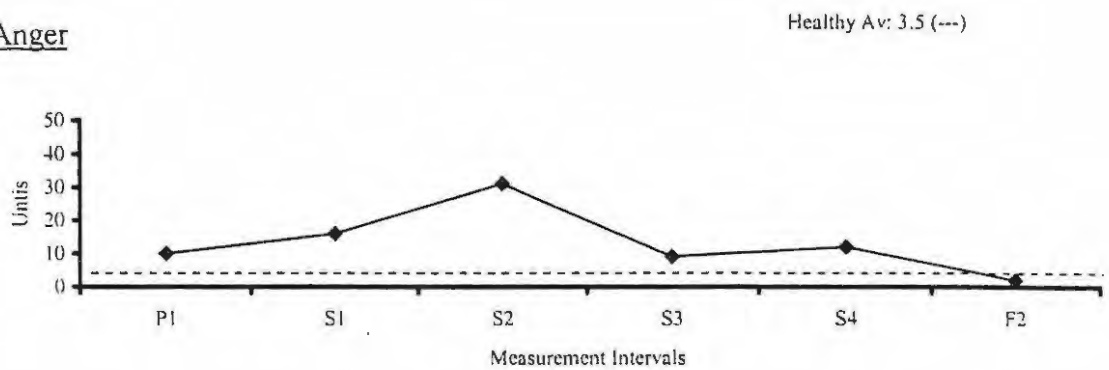


Emotions



Key to x axis  
A1: Pre-programme assessment interview  
F2: Eighteen-month follow-up interview

Figure 26

POMS scores for EN for Tension, Depression and AngerTensionDepressionAnger

Key to interval scale:

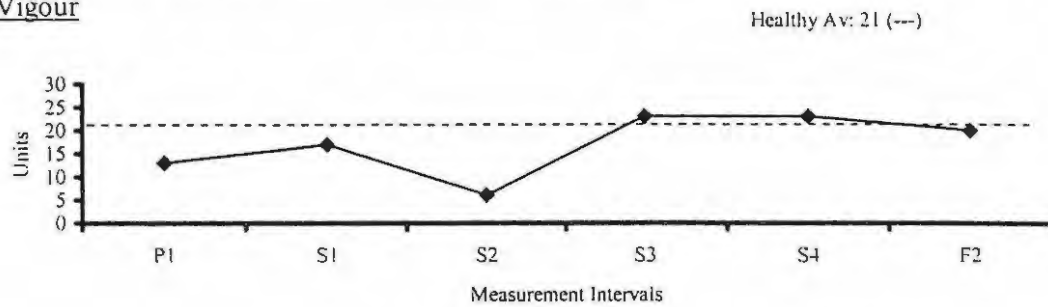
A1: Pre-programme assessment interview

S1, S2 etc: Weekly group sessions

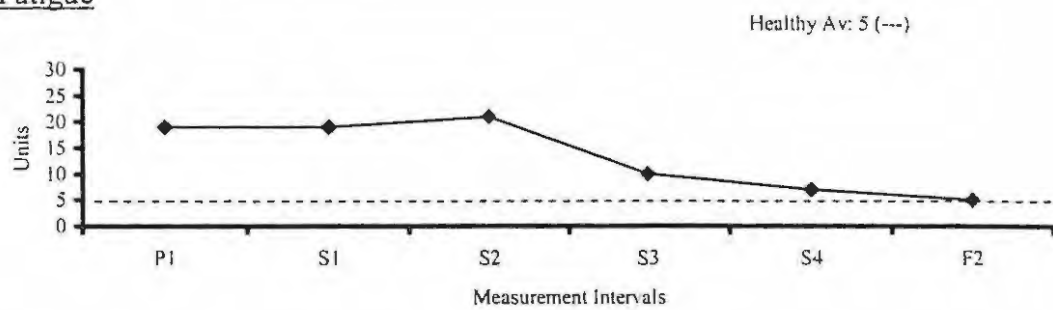
F2: Eighteen-month follow-up interview

**Figure 27**  
**POMS scores for EN for Vigour, Fatigue and Confusion**

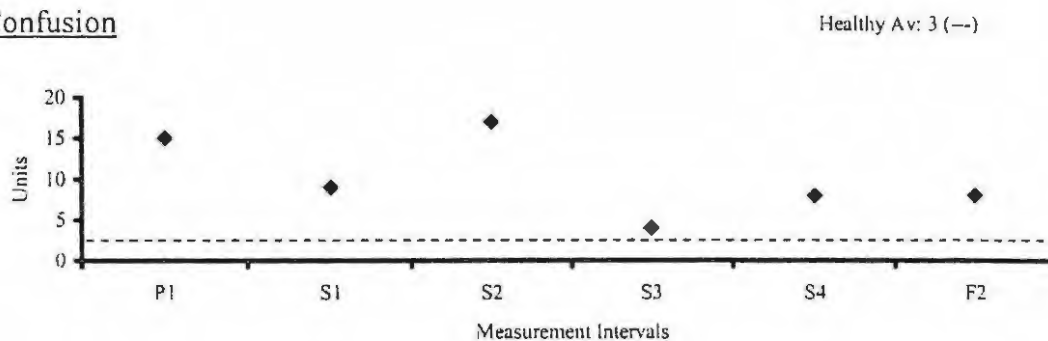
Vigour



Fatigue



Confusion



Key to interval scale:

A1: Pre-programme assessment interview

S1, S2 etc: Weekly group sessions

F2: Eighteen-month follow-up interview

(e) Session 1: Introduction to one another, the programme, relaxation, how the heart works and coronary heart disease risk factors. Group discussion on heart attack experience and prescribed medication

EN was very talkative in this session. His attitude was one of bravado and he was somewhat flirtatious with the lady sitting next to him saying “there’s nothing wrong with this babe”. He turned his back on the participant next to him, even though the group leader had asked him not to do so. He spoke quite a bit when it came to sharing about what medication they were all on, this in spite of his comment in the assessment interview that he just took whatever was prescribed. When the group discussed mortality he said “no, I’m not at all worried”, and his air of bravado was a cover for his fear about his health. Leaving it all up to fate and the doctors, would, however, increase his feelings of helplessness.

His feedback about the session was positive. He was very satisfied with the session and felt that the concepts were clearly presented, indicating this by rating the maximum score of 4 on the feedback sheet (see Appendix KK). The group experience was a comfortable one for him and he felt that he could speak openly about his issues (rated as a 3, see Appendix KK). In spite of speaking a lot in the session and interacting with the group, he indicated that he gained only some benefit from talking about the MI experience and the medication being taken (a 2 on the feedback sheet), signifying that he still did not feel that he had a clearer understanding of what medication he was taking (also a 2, see Appendix KK). The most outstanding aspect of the session for him was an explanation of how the heart worked and how cholesterol affects the disease. He requested that the

terminology be adjusted to suit all levels of education as he was finding it difficult to follow the terms used.

(f) Sessions 2 to 4: The Type A behaviour pattern

EN was unable to identify with the concept of the TABP and said that he definitely did not exhibit any of the traits. He indicated on the feedback sheet that he only understood the concept a bit (rated as a 2, see Appendix LL) although he identified the behaviour pattern in his staff, giving examples of their behaviour. He rationalised his own behaviour saying that his intense involvement with his work was not because he was competitive, but because “it was a labour of love”. He did not complete any of the Self-Monitor or Bombs and Fuses homework sheets, although he attempted the former (see Figure 28). He gave one example of his reaction to a situation (irritation at a failed stop-order), but was unable to carry the exercise to a point of insightful analysis of his reaction. He stopped completing the form after a second incident, which was “being told what to do”. If he had analysed his behaviour further he might well have had to face his vulnerability. His inability to allow himself to feel vulnerable by identifying his emotions and the motivation behind his behaviour was becoming increasingly evident.

EN was very interested in the stress and stress response material presented in Session 3 and felt that these concepts and the previous session’s material on cholesterol were now starting to be more than just words. He rated the clarity of the presentation and his satisfaction with the material with the maximum score of 4 on the feedback sheet (see Appendix MM). In the session he gave an example of how he alluded to shopping at a particular mall as his “blood pressure check”. That is, the more stressful it was, the more

Figure 28

Self-Monitor homework sheet for EN

Date	Situation	Behaviour	Emotion	Critic's Response	Self-Monitor's Response
Thurs.	Step 0 rule - revised.	Innovation -	Slightly		
Wed	Bang told what I am				

he felt affected by the experience. He was keen to learn from examples of stressors shared by the other participants so that he could be prepared if something similar ever happened to him. That is, this was his way of avoiding helplessness or feeling out of control in the future. He rated this experience of the group discussion as a 4 on the feedback sheet (see Appendix MM).

He understood the concept of time urgency (see Appendix MM) but did not feel that he exhibited this behaviour. This was substantiated by his low Speed and Impatience score of 5% for this component of the TABP on the JAS (see Figure 24, p. 228). These scores may not be accurate as they represent an individual's perception of his or her behaviour. If the person lacks insight, then the perception will be inaccurate. The Time Urgency homework sheet (see Figure 29) was the only one that he really completed while he was on the programme. For this exercise, he literally had to follow simple instructions to do certain activities every day, which he did. However, he made no comment about how he felt while doing them. He refused to alter one of his usual habits or way of doing things, simply saying "No" on the form. His impatience and irritation with the exercise is an indicator of time-urgent behaviour, although he did not perceive his behaviour to fall into this category.

Session Four was the final session attended by EN. The major focus in this session was how attitudes and belief systems colour our perceptions and affect how we react to situations. EN gave a very good example of how he reacted negatively to something on the radio. When the group tried to discuss this in order to understand his attitudes and perceptions, he became extremely angry and said that he felt like he was always getting

Figure 29

Time Urgency homework sheet for ENDAILY BEHAVIOUR EXERCISES

Please note the exercise marked for each day of the week and practise that particular behaviour for the whole day. On the sheet, make a note of how it felt to do the exercise. Note if you found it easy or difficult. Also note which ones you would like to incorporate into your daily routine.

Day of the week	Behaviour to be practised	Your comments
Monday	Walk, talk and eat more slowly.	Down
Tuesday	Practise doing one thing at a time	Tried.
Wednesday	Drive in one of the slow lanes.	Not allowed to drive so walked a different route
Thursday	Try to schedule your morning before work so it is not rushed; ideally give yourself a little idle time.	Tried
Friday	Ask family members about their daily activities.	yes
Saturday	Leave off your watch.	Don't own a watch. Never watch the time
Sunday	Alter one of your usual habits or ways of doing things.	No

into trouble in the sessions. In his feedback form he indicated that he had a clear understanding of the concepts presented and felt satisfied with the lecture (all rated as a 3 on the feedback sheet, see Appendix NN). However, he did not find the group discussion helpful and rated the group leader as not really understanding his problem (rated as a 2) and also as only somewhat sympathetic and caring (rated as 2, see Appendix NN). His anger was evident and it seemed to do with feeling exposed and emotionally vulnerable.

He indicated in his form that he felt the previous homework exercises on the Self-Monitor and the Bombs and Fuses had not been at all helpful in identifying high risk or stressor situations (rated as 0 on the feedback sheet, see Appendix NN). At the time it was difficult to ascertain if he simply decided not to do the exercises or whether he did not understand the exercises and just gave up. Comments that he made at 18-month follow-up indicate that he did have some understanding of these concepts (see below). During the intervention, he did not call the group leader to ask for further explanation or guidance and was reluctant to analyse and understand his behaviour, feelings, thoughts and attitudes. He called the group leader soon after this session to say that he would not be coming back, saying that he felt worked up after the sessions and felt that everything he did was wrong. He could not see the connections between his behaviour and his reactions and experienced any feedback as criticism.

(g) Follow-up and summary

The researcher called EN at 18-month follow-up in August 2004 and asked if he would meet with her. He was very approachable on the phone and agreed to see her. As a result he attended two follow-up sessions with her. When he arrived for the first interview it

was immediately evident that he had undergone both physical and psychological changes. He had gained weight and although his BMI was only 26 (weight 85 kg), his face was bloated and he looked very different to when he had joined the programme. This was probably because the first interaction with him was just prior to his joining the programme and this was after he had lost so much weight when he was in hospital. It was evident that he was clinically depressed and that the aggression that had been so prevalent in the previous interactions was absent.

At the commencement of the follow-up interview he shared that he had had a terrible physical experience two months after dropping out of the programme in 2002 that had exposed his vulnerability. He was out walking one day when he felt a sensation that made him think that someone had shot him. With his history of being in the Rhodesian war and knowing what it was like “to shoot and be shot at”, this experience was terrifying for him. He even thought that maybe a car had knocked into him. On checking his body he established that neither of these had occurred and he sat down on the pavement and waited for help. He asked a young schoolgirl who walked by to get help but when the girl told her mother, the woman just looked out of the door and then shut it without doing anything. He admits that he must have looked like a poor hobo in his old parka, but this added to his distress as he sat waiting for someone to come by who would help him. Eventually a couple who were out walking assisted him. His doctor informed him that a faulty lead on his defibrillator had shocked him and he underwent an operation in November 2002 to correct the problem.

Although he has had no further similar incidents, the psychological impact of this event was enormous. He often wondered why he had not died and believed that he still had something to fulfil in his life. He felt that he had learnt how fragile life is and that it added to the “wake-up call” that he got from his MI. He had stopped smoking immediately after his MI when the locum doctor warned him saying: “Listen buddy, that was your last cigarette”, but since the pace-maker incident, was considerably more compliant. He took his medication, knew the names of his medications and why he was taking them. He walked every day and took great delight in telling the researcher that he actually ate “apples, oranges, oats and even yoghurt”, whereas he had refused to do so before, saying that the orange he’d had before was only with vodka. His comment in the initial assessment about not needing to watch his diet because he did not have a weight problem was replaced with a fear and dread of his health worsening and the increase in his weight was his greatest concern. He also admitted that he had been wrong to challenge the researcher when they first spoke about why he should know what medication he was taking.

He indicated that soon after dropping out of the programme he suffered from severe depression and was prescribed Prozac for three to four months. He described how he felt “bewildered and anxious” most of the time but said he could not say what his depression was about. He indicated, however, that he now clearly recognised that he was an extremely anxious person. Although he felt very pleased that he was “off his loony” tablets for a year, it was evident that he was still depressed. He expressed that being depressed had been the worst experience ever for him and that he would rather have his teeth pulled or even have another MI than face those feelings again. He indicated that on

numerous occasions he had wanted to call the group leader to rejoin the group but had not done so. He had therefore shifted from denial as a defensive strategy and succumbed to extreme depression.

Concerning the programme, when asked for feedback that might help other individuals, he took full advantage of the opportunity and said that he had found it very difficult to follow the concepts because of his level of education. He said: "You weren't tolerant. If 60% of the group could follow, you just went on. I never felt I could ask you a question afterwards. Also the frolicking in the woods on the relaxation tape was too much." (He was referring here to the visualisation exercise of walking in the woods.) From that point onwards he decided "it was no good". However, during the course of the programme he had indicated that he had really enjoyed the relaxation exercises and although he might be someone who did not feel comfortable with the aspects of the exercises that were less clinical, he did not give the group leader any feedback so that this could be worked with at the time. In the interview he then added: "I do believe in what you are doing and one does need help after an experience like this." At this point it felt like he was trying to soften the blow after his previous negative comments about the group leader and the programme. This was a shift from the first interview where he had little regard for what he said and how this impacted on others.

He went on to say that he really liked the groups, particularly the brainstorming exercises. He did feel however that he had attended the programme too soon after his MI and that he had "not been ready to allow help in". He added that there was nothing the group leader could have done differently. He was extremely grateful to his family for their support

and said he would not have come through this without them. As a way of testing the researcher's genuine interest in him, he asked if she remembered how many people he had on his air force newsletter. She passed the test by telling him the correct number and he then shared that he now had a "broken hearts" club section in the newsletter and when he went for his cholesterol and blood pressure checks, he reminded his buddies to do the same. Although he used the metaphor of a broken heart, he did so to draw attention to the physical aspects that need checking, rather than to relay anything about his unconscious sadness about his MI. When shown his JAS and the POMS scores from the beginning of the programme, it was pointed out that they reflected his perception of his own behaviour. With this concrete evidence in front him he said: "I'm a silly bugger, hey? I was stupid to leave when I did." He then acknowledged that he had not wanted to go to a psychologist because he liked to be in control of what he does.

Towards the end of this follow-up interview he surprised the researcher by naming one of the homework exercises from the last session before he dropped out. This was in fact the exercise that had aroused his anger and resulted in his leaving the programme. He said that the Bait and Hook exercise could have been explained differently (although he had rated his understanding of the concept as a 3 in the feedback sheet, see Appendix NN), and went on to share his knowledge from his reading in this area about the "child, adult and parent parts". He said that if it had been explained in this way that he would have understood it better. It seemed like he needed to hear the concepts in his own words in order for him to accept them. The researcher acknowledged that the exercise had been a very difficult one and that it could have been explained differently. In this follow-up interview it became increasingly evident how he had been unable to deal with his anxiety

and frustration about the feelings that were evoked by the exercises. Instead he had walked away and felt some regret for this action later. In spite of his claim about a lack of education, he had some understanding of the exercise presented but had been unable to deal with the anger that it triggered.

It was only in this follow-up interview that some level of trust with him was developed. Within this space of trust, he vented his frustrations about the programme. When the researcher offered him a session the following week to see his latest POMS and JAS scores he was very grateful. His wife was late in fetching him from the first of the two follow-up sessions so the researcher stood talking with him at the gate. He was very aware of her time and did not want to keep her from her work. He also commented that he did not mind waiting for his wife because she had done so much waiting for him. This behaviour was completely different from the initial interactions with him where he was oblivious to any boundaries about time or thought for others.

At the second meeting with him the next week he was even more amicable about talking and encouraged the researcher to ask questions when he thought he had talked too much. He admitted at the beginning of this session that because of his impulsiveness he had not given her a chance. He regretted this because he felt that the physical aspects of his MI could not compare with the enormity of the psychological trauma that he had experienced. He had often thought he was “going psycho” and would spend hours walking and thinking about all the things he had done wrong. He said that he still became tearful and agreed that he was still depressed.

When offered an opportunity to deal with his depression in some further follow-up sessions, he ignored the comment. The researcher spoke with him about the importance of naming and validating one's feelings by saying "you need to just say I am feeling angry, anxious, and so on, and that this is okay". He asked if he was allowed to be angry and verbalised his fear about not knowing what to do with anger once he had recognised it. He said he had become overly aware of other peoples' feelings and acknowledged that in the past he had been too self-involved to notice. He felt that the information about validating feelings was definitely "very important and very helpful" and said: "Now I am going to use that and I am going to phone and tell you how it works." Later in the session the researcher again offered help in case he had not heard her the first time but he indicated that he preferred to "figure these things out for himself". Although he was more approachable and less defensive, he still could not allow himself to reach out for help.

EN's JAS scores were different at 18-month follow-up period from those at the beginning of the programme. The follow-up sessions took place after his depressive episode and the problems with his pacemaker. At that time, he had experienced enormous feelings of helplessness and the only way that he eventually took control over the life-threatening nature of the MI was to take active steps to improve his lifestyle. Surprising was the ongoing indication of a Type B profile in his JAS scores (see Figure 24, p. 228). His global Type A score and his Speed and Impatience score had remained unchanged at 15% and 5% respectively, his Job Involvement had decreased from 30% to 10%, and his Hard-Driving and Competitive score had decreased from 75% to 40%. It is unlikely that his scores changed because of the four sessions he attended on the programme although he

emphatically said that the information he had learnt on the programme had helped him. A large contributing factor to his change was a realisation that if he wanted to prevent re-infarction, he had to change his lifestyle. He not only altered his primary and secondary risk factors, but also components of his Type B profile. Although these had been low at the beginning of the study, it is possible that he may have changed his behaviour pattern immediately after his MI. This is considered in Chapter 7.

At 18-month follow-up he acknowledged that his use of denial contributed to why he had dropped out of the programme and that he had not felt ready to deal with the implications of his MI. Because of his tendency to minimise and deny his emotions, he went through the process of coming to terms with his MI on his own. As a result, soon after dropping out of the programme, he presented with major depression. He therefore shifted from denial of the event and his mortality to depression. In the midst of this depression, he experienced problems with his pacemaker and this terrifying experience finally brought him to a realisation of needing support. He then became dependent and needy, but only in his relationships with his family members. It was only then that he was able to view his MI as a "wake-up call". At the follow-up interviews he was overly aware of others as compared to when he was completely oblivious to the needs of others. When he left the session he even hugged the researcher goodbye. He was still not, however, prepared to work with his emotions and continued to deny and minimise them.

His anxiety was clearly evident, based not only on the clinical assessment, but also on his recognition of his anxiety levels. The change in this man seemed mostly to have come from his final acceptance of his health problem and how terrified he was. This had

alerted him to the fact that he had to make changes to his behaviour. While the individual follow-up sessions provided pertinent information that shed light on why he had dropped out of the programme, it is uncertain whether he will again resort to the TABP as time moves on from the memory of his frightening physical experiences. While he refused help from a psychologist, he accepted antidepressants from his cardiologist, and in the end came to terms with his MI experience in his own way. Only long-term follow-up of this man will provide the evidence that he really has ameliorated his chances of experiencing another MI.

## CHAPTER SEVEN

### Discussion

#### 7.1 A thematic evaluation and discussion of the intervention model

Based on the qualitative and quantitative data obtained from the three case narratives presented in the previous chapter, as well as observations of the group intervention and feedback from participants, the major themes that were addressed in the intervention model are evaluated and discussed in this section. These themes include (1) the trauma of the MI and the psychological impact of the experience, (2) psycho-education in respect of the function of the heart and the impact of stress on the cardiovascular system, (3) the identification and modification of the TABP, (4) the identification and expression of feelings, (5) empathic communication, (6) psycho-education to facilitate insight into the compensatory dynamics of the TABP, and (7) an exploration of the effect of an MI on a survivor's experience of his or her body. Individual differences and similarities in responses to the programme, as well as specific theoretical points from the literature on which the case material has a bearing, are examined. The comments, experiences and ratings of the weekly feedback sheets from other participants not written up as case studies are included where appropriate.

##### 7.1.1 Myocardial infarction: Comparing the experience

In the first session, individuals were given the opportunity to share and to compare their MI and CABG experiences as a way of facilitating group cohesiveness. Three themes

emerged during the lively and interactive response to this session: the MI experience, the issue of mortality, and heart medication being taken.

As found by Cowie (1976) and East et al. (2004), by reconstructing the past and by comparing their experiences with CHD, the MI experience was in some way normalised. This too was the case for participants in this study. In addition, the exercise was an excellent ice-breaker and provided participants with a common topic for discussion. The issue of mortality was raised and all participants agreed that the MI experience was a life-threatening and terrifying one. Denial was evident in participant EN who joined the programme six weeks after his MI. He was still in a state of shock, having not yet come to terms with the MI experience, and generally presented with an air of bravado and tended to minimise the implications of his CHD. This is a common way for MI survivors to deal with the impact of such an event (Goldbeck, 1997). He told the group that he was not at all afraid of dying. However, at 18-month follow-up he admitted that he was afraid and that he wanted to live so that he could enjoy the relationships with his family that he had only just come to appreciate. He had therefore presented with denial of the implications of his MI immediately after the event, in part as a way of coping with the emotional and physical impact of the experience, but also because this was one of his general coping mechanisms. LR indicated that because of his training as a priest, death itself did not frighten him and that he was more concerned with living life to its fullest. This was an important comment echoed by the group in general. That is, while the family members of MI survivors struggled with a fear of their dying, the MI survivors

themselves had to struggle with the challenge of how to live in a way that was no longer detrimental to their health.

Five of the participants rated the benefit derived from this first session as a 4, one rated it as a 3, while the remaining three felt they had only gained a bit from the discussion, indicating a 2 (see Appendix KK). RB, who rated the experience as a 2, was a by-pass patient who may have felt differently if there had been more by-pass patients in the group. The lively interaction in the group and the positive experience for the majority of the participants point to the importance of providing MI survivors with an opportunity to voice their inherent fears and to talk about the MI experience. Once verbalised, these could be addressed by the group leader. This concurs with the latest findings by East et al. (2004), that by retelling their "stories", MI survivors revealed their ongoing fears and vulnerabilities.

Participants also discussed the various medications they were taking and were able to inform one another from their own experiences and knowledge. Bracke and Thoresen (1996) too found that individuals with CHD were respectful of information obtained from their peers. In this study, participants helped one another to understand what their various medications were for and discussed how to take their tablets if they had missed a dosage. In spite of all individuals rating the group experience as highly satisfactory (a 4 on the feedback form), the majority of participants indicated that by the end of the session they only had some understanding (a rating of 2 on the feedback form) of the medication they were taking (see Appendix KK). The function of the various cardiac drugs was not

included as part of the formal lecture and while this was discussed informally in the group, it is recommended that this topic be included as part of an intervention with patients with CHD.

#### 7.1.2 Myocardial infarction: The physiology of how and why it happened

The drawings and literature used in this study (see Chapter 4, section 4.4) were easily followed and understood by all. Without exception, all participants were very satisfied with the information presented and indicated this in their feedback forms (a rating of 4, see Appendix KK). Even EN, who was generally negative about the psychological concepts presented in the sessions, commented that he too found this information to be practical, useful and very applicable. It therefore helped him to feel a sense of internal locus of control and self-efficacy as, besides feeling informed, he also understood and identified with the information. Considering the state of shock immediately after an MI, most of the information imparted by cardiologists is usually not understood and is seldom expressed in lay terms (Morse & Mitcham, 1998). This session provided an opportunity for questions to be answered in simple, everyday language. As executed by Fullard (1982), and as used by the researcher in her clinical work with heart patients, an explanation of the workings of the heart, a heart attack, angina pectoris and the risk factors in lay terms proved to be an invaluable aspect to include in this psychotherapeutic intervention model.

### 7.1.3 Stress and coronary heart disease

The established link between stress and its negative impact on the cardiovascular system, outlined in Chapter 2, section 2.6.2, necessitates that individuals with the disease be educated in this regard. In Session 3 of this study individuals were informed about stress, the stress response and how it is triggered as a result of an evaluation of a stressor as threatening. The link between stress and the time urgency component of the TABP (Booth-Kewley & Friedman, 1987; Bracke & Thoresen, 1996) was also presented and the exercises pertaining to this aspect of the lecture are discussed in section 7.1.4. An adapted version of Everly's (1989) systems approach (see Appendix L) used in this study was well received. During the session, all participants verbalised that they identified with the concept of stress and expressed their regret that this kind of information had not been made available to them years ago. Some even felt that knowledge of the pathological link between their behaviour and their health would have been a significant deterrent for breaking old patterns. The concept of stress was well received by participants, and in the feedback forms (see Appendix MM) only two individuals indicated that they understood the concept of stress a bit (a score of 2 on the rating scale), while the remaining participants rated their understanding as a 4 (understood the concept a lot).

In addition to the lecture content about stress and the stress response, relaxation techniques were included as a means of addressing the physiological consequences of the stress response. Relaxation techniques that address the physiological effects of stress and teach individuals how to counteract these negative physiological effects have been used extensively and successfully in other rehabilitation programmes (Blumenthal et al., 1997;

Friedman et al., 1986; Marais, 1989; Ornish et al., 1983, 1990). Those individuals who remained on the programme to the end rated the use of relaxation techniques at the end of each session as highly beneficial and enjoyable. In addition to relaxation exercises at the end of each session, at the beginning of the programme participants were given Marais' (1989) relaxation audiocassette for daily practice. While all the compliers enjoyed the audiocassette and used it daily to practise the exercises between sessions, participant HR was so impressed with the relaxation exercises that he encouraged his whole family to use the tape so that they too could benefit from relaxing.

EN, a short-term non-complier, indicated in the feedback forms for the session on stress (see Appendix MM) that the relaxation exercises were the highlight of the sessions for him but at 18-month follow-up he said that he had been uncomfortable with the visualisation section of the exercise. He was a person who found it difficult to symbolise walking in the forest as a means of relaxing, "saying it was too much for him". While relaxation techniques should be an integral part of any rehabilitation programme with individuals with CHD, EN's response to the exercise indicates the need for sensitivity that some people might find this aspect of the exercise difficult. The literature on relaxation training emphasises the need to tailor relaxation procedures to the needs of the individual (for example, Lichstein, 1988; Smith, 1990).

#### 7.1.4 Increasing awareness of the manifestations and compensatory nature of the Type A behaviour pattern

In Chapter 2, section 2.8, a number of psychodynamic formulations of the TABP were presented. The first posited the behaviour pattern as a coping mechanism for exerting control over environmental demands (Friedman & Rosenman, 1974; Glass, 1977; Jenkins, 1979), while the second formulated the TABP as a compensation for low self-esteem and insecurity (Bracke & Thoresen, 1996; Friedman & Powell, 1984; Friedman & Ulmer, 1985; Price et al., 1995). Even though both these formulations explained important and palpable aspects of the coronary-prone personality, the first formulation minimally explained the deeper dynamics of the pattern, while the second did not account for the origin of the low self-esteem and insecurity. It also did not explain why, other than a lack of skill, these individuals struggled to identify and express their feelings. In Chapter 2, section 2.8 (d), the researcher suggested a third formulation using a relational model perspective to trace the origins of the low self-esteem and insecurity to the earliest interactions between the mother and the child. Price's adaptation of a social learning model to Type As provided a further link in the developmental analysis of how Type A behaviour is learnt and reinforced by the young child in the formative years. These psychodynamic formulations provided a framework for the researcher to understand potential difficulties that MI survivors would encounter in this study when trying to change typical Type A behaviours, as well as a context for the aims of this section of the intervention which was to identify the TABP and to increase an awareness of the compensatory nature of the pattern.

In Sessions 2, 3 and 4 of this study, the lecture content, group discussions and homework exercises were structured in such a way that individuals could identify the behavioural aspects of the TABP as well as become increasingly aware of the compensatory nature of the pattern. In addition, participants were provided with an opportunity to practise Type B behaviours and to promote cognitive changes in beliefs and attitudes. The exercises were based, in part, on the approach used by the RCPP researchers (Bracke & Thoresen, 1996; Powell, 1996; Ulmer & Schwarzburd, 1996). Some examples of the exercises for learning Type B behaviours that could lessen time urgency included having to drive in the slow lane, or eat slowly. The Bombs and Fuses exercise helped them to note fuse behaviour that could trigger an MI, such as eating a very fatty meal, or a typical Type A reaction to a situation (e.g., anger, irritation, impatience, or aggression). As found by Ulmer and Schwarzburd (1996), also part of the RCPP research team, individuals in the current study too found this structured approach to be comfortable as it required less reflection. The exercises were also easy to implement as individuals only had to follow instructions.

At this point in the programme, as reported in the case narrative, it was patently clear to AvR that she was an extreme Type A, but she expressed grave doubt about her ability to change the pattern. LR, on the other hand, felt empowered by identifying his Type A behaviour and by learning skills to change the pattern. Other participants indicated in the feedback form (see Appendix LL) that they understood and identified with the pattern a lot (rating the maximum score of 4). Participants RB and HB remarked that they felt an

increased sense of self-efficacy and internal locus of control by being able to identify the various fuse behaviours that could set off an angina attack or an MI.

While participants were able to identify with typical Type A behaviours such as multi-tasking, competitiveness, time urgency, anger at other drivers, perfectionism and so on, most struggled to understand the deeper dynamics of the pattern in terms of belief systems and attitudes, rating this as either a 2 or a 3 on the feedback form (see Appendix NN). The exercises devised to facilitate an understanding of the belief systems and attitudes were the Self-Monitor and the Bait and Hook exercises. These exercises were problematic as they required a higher level of self-awareness and reflection than group members were capable of at this stage. The examples given in the case narratives demonstrate how both LR and AvR grappled to provide a caring self-monitor response, or to identify underlying belief systems. The homework exercises from other participants revealed similar problems. As found by Bracke and Thoresen (1996), the rate of progress was slow and required repetition and ongoing input. In this short-term intervention model the importance of well-designed homework sheets became evident as participants struggled to use the exercises appropriately. However, once examples had been included in the homework sheets for the Self-Monitor, Bombs and Fuses, Bait and Hook and Time Urgency exercises, these were helpful in clarifying the concepts for participants.

Although the Bait and Hook exercise was successfully used in the RCPP (Bracke & Thoresen, 1996; Powell, 1996), this may have been because the study was run over an extended period of time that allowed for practice and reinforcement. Powell (1996)

alluded to the complexity of addressing the underlying belief systems for Type As who are apt to change others, but not themselves. Ulmer and Schwarzbud (1996) found that 3 to 6 months of constant practice was required for real change to occur for RCPP participants. While an increase in awareness may have been obtained in this short-term study, it is doubtful that actual belief systems were successfully altered.

#### 7.1.5 The identification and expression of feelings and improved empathic communication

(a) Empathic communication (Session 6): The ability to listen empathically is difficult for individuals with CHD. This factor is linked to the time urgency component of the TABP as these individuals hurry others along in their speech and are usually preoccupied with their own thoughts and ideas (see Chapter 2, section 2.2.1). In addition, the ability to listen empathically is hampered by high levels of impatience that make it difficult for them to wait for another to finish, as well as beliefs of entitlement about their point of view as being the correct one (Scherwitz et al., 1986; Young, 1998).

An observation of the small-group processes indicated that most participants in this study found it difficult to refrain from giving advice or from hurrying individuals along in their communications and that they rated their ability to do this exercise as poor (a 1 for a bit, or 2 for somewhat) (see Appendix PP). However, the information presented, as well as the small-group experience, created an awareness of empathic listening. Without exception, those individuals who remained on the programme enjoyed working in smaller

group of twos and threes and rated the discussion using the skills taught in this session as a 3 or a 4 on the feedback sheet.

(b) The identification and expression of feelings (Session 5): As demonstrated by Billings et al. (1996) and Ornish et al. (1983, 1990), teaching MI survivors how to identify and verbalise emotions was an extremely beneficial adjunct to the intervention model. In this study, about half the participants were unsure about “I feel...” messages and could not distinguish between a feeling and a thought, rating their ability to do so as either a 2 or a 3 for this exercise (see Appendix OO). Some also experienced difficulty locating a feeling, with one individual being unable to locate any feeling (rated a 0 on the feedback sheet). Most rated a 2 for feeling somewhat confident about identifying their emotions or changing their styles of communicating. These findings concur with those of Billings et al. (1996) and Ornish et al. (1983, 1990) where participants on the LHT struggled with calming their minds because of a tendency to be action-orientated. Also, because Type As have generally denied and minimised their feelings, introspection and putting feelings into words is a difficult experience for them. Even though attempts to identify and express feelings proved to be difficult for participants, the small-group interactions provided an opportunity for them to identify their particular styles of communication. Most participants indicated that they wanted to experience more of these small-group interactions.

The presence of anger, hostility, depression and anxiety was evident in the homework sheets which revealed how participants grappled with these emotions. The findings in

this study concur with those of the LHT researchers (Billings et al., 1996; Ornish et al., 1983, 1990) that most individuals were more easily able to identify and express “big muscle emotions” such as anger. Both AvR and LR indicated in their homework sheets and in feedback to the group leader how often this emotion was triggered in their daily lives. AvR and LR often experienced anger as a result of feeling out of control and helpless, as well as a loss of internal locus of control and decreased self-efficacy. The impact of the material presented on empathic listening and the identification and communication of feelings in Sessions 5 and 6 was profound for participant HR. He experienced such a remarkable change in his relationships with family members as a result of this new awareness that his wife said: “I have always known you, but after 36 years of marriage I am finally able to understand you.”

The results from this study are in accordance with those of the researchers of the LHT (Billings et al., 1996; Ornish et al., 1983, 1990) that CHD participants struggle to identify and to express their emotions. The importance of teaching individuals how to do so is highlighted by the latest research that emphasises the contribution of negative emotions such as anger and hostility in the development and maintenance of CHD (Donker, 2000). In addition, emotions such as depression and anxiety are increasingly linked as precipitating factors for MI (Jiang et al., 2002) and also complicate rehabilitation (Brown & Munford, 1983-84). The inclusion of the content of these two sessions is therefore recommended for interventions with MI survivors.

### 7.1.6 Increasing psychological mindedness to facilitate further understanding of the compensatory nature of the TABP

Besides the various exercises that helped identify manifestations of the behaviour pattern and techniques for identifying and expressing feelings and for improving communication, a number of psychological concepts were introduced to facilitate insight into the compensatory nature of the pattern and to generate general psychological awareness. The material presented empowered participants to further understand the compensatory nature of the pattern, as well as how it had developed as a way of coping with difficult past and current experiences and emotions.

In the feedback form for Session 7 (see Appendix QQ), participants indicated that the concept of the unconscious mind was particularly empowering and enlightening for how it gave a context to their behaviour, rating the clarity of the presentation of this concept as either a 3 or a 4 on the feedback sheet. LR in particular mentioned at several follow-up interviews that the concept of “the cellar of the mind”, as he referred to it, had been the most helpful for him as it had empowered him to understand a driving force behind his behaviour. The remaining concepts of narcissism, the world as a mirror, defence mechanisms and the self and other were also well understood and four of the six individuals rated each of these as a 4, while the remaining two rated these as a 2 or a 3 (see Appendix QQ). During the group discussion it was evident that far too much material had been presented in this session. So much so, that when it came time to discuss the information in smaller groups, participants expressed that they would rather not do this, as they wanted to think about the information. Although all felt that the

information was invaluable and could be put to meaningful practical use, they suggested that future runs of the intervention should present the material over several sessions with additional small group discussions. The practical implementation of these recommended changes is discussed in Chapter 8, section 8.3.

The objective for presenting these concepts was to facilitate an awareness of some of the psychodynamic features of the TABP. The introduction of basic psychological concepts in Session 7 enabled them to understand the Triangle of Relating, presented in Session 8 which outlined how the past interacts with the present and shapes our reactions in the now (see Chapter 4, section 4.7.2). Working in smaller groups of twos and threes, as well as individual feedback from the group leader, was very helpful for concretising the concept. The psychological concepts came to life and were reinforced when, in a lively, larger group discussion, LR shared his experience of forgetting to attend a wedding (see Chapter 6, section 6.1.2 (h)), and relayed how the impetus for his behaviour came from underlying beliefs and emotions. Five out of four participants rated their extreme satisfaction with the experience in this session as a 4, while the fifth individual rated it as a 3 (see Appendix RR). The positive reception of the psychological concepts and the Triangle of Relating and how these helped individuals to further understand the compensatory nature of the pattern indicate that they should be included in interventions with MI survivors.

### 7.1.7 Metaphoric language as a way of understanding the post-infarct mind-body relationship

The concept of the mind-body link was introduced to facilitate an awareness of the post-infarct mind-body relationship. This concept has not previously been promoted in cardiac rehabilitation programmes but is regularly used by the researcher in her clinical work with heart patients. In Session 10, participants particularly enjoyed giving examples of embodied language and participating in the group discussion on the mind-body link, rating their satisfaction with this session as mainly a 3 or 4 (see Appendix TT). This evolved into a lively discussion and some of the examples that were given included “you’ll give me a heart attack” as an expression of being pushed to a limit; “pissed off” as anger expressed as a bladder infection; “he’s anal retentive” for someone considered uptight; “heartly” for someone who is joyful and happy, and so on. For individuals so disconnected emotionally, these metaphoric terms interested and touched them and offered a non-threatening way of exploring how embodied language indicated something of what they might be trying to express emotionally.

The exploration of metaphoric language revealed that participants too referred to their MIs as did Miliora’s (1998) patient who described her lifetime experiences as “heart-breaking”. Participants in this study too used words such as “heart-broken” and “heartache” to express how they felt about their lives and their MIs. As a group they expressed that the loss of trust in their bodies was “heart-breaking” for them. Heart attack participants expressed an intense level of anger, as well as an enormous amount of heartache and helplessness prior to their heart attacks. As discussed in the case narrative,

LR felt that the information on the mind-body connection empowered him to take charge of his health and to gain an increased sense of internal locus of control. Although they enjoyed the exercise, it was not easy for most individuals to grasp the concept of a mind-body link rating the ease with which they could link their own illnesses and emotions with a 2 or 3 (see Appendix TT). RB, a CABG participant, had a remarkable paradigm shift when, as a result of the lecture input and discussion, he realised that for years he had been saying that he had “hardened his heart” and recognised the link between his everyday language and the hardening of his arteries. He indicated that he felt “he had found the match that lit the fire” as, by saying he had “hardened his heart”, he was revealing how he had blocked off his emotions. It was quite humbling to see how the insight claimed him.

HP felt that the concepts had not been clearly presented and did not understand or enjoy the session. This particular participant felt that the concept was too far-fetched and said that it jarred with his religious leanings as a Muslim where it is believed that everything that happens is predestined and that one has no control over what happens. Although his comments serve as a reminder of how one’s perceptions are coloured by a multitude of factors, including culture, religion and upbringing, and that ethically, these need to be respected and acknowledged in any intervention model, his reaction reveals certain inconsistencies in his beliefs as he did go for help by undergoing CABG surgery and did not therefore leave everything up to destiny.

In spite of one individual's negative comments and ratings of the session (see Appendix TT), the inclusion of the relationship with the body post-MI and an exploration of the metaphoric language were very well received by the group and had a positive effect for the two individuals discussed above. In light of this, the researcher highly recommends the inclusion of these concepts in interventions with MI survivors.

The relaxation exercise conducted in Session 11 evolved out of the researcher's clinical work and was designed specifically for the experience of the body after an MI (see Appendix BB). This relaxation exercise did not only deal with the physical effects of the stress response in terms of causing tension and then relaxation in various muscle groups, but was designed to increase individuals' awareness of the areas of their bodies involved in CHD and gave them an opportunity to connect with these in a very relaxed state. During the exercise, individuals were encouraged to engage with how they felt when their attention was drawn to various parts of their bodies and to validate any emotions that might arise. Colours were used as a healing theme.

This exercise was profound for all participants, all of whom rated it as a 4 on the feedback sheet (see Appendix UU). During the exercise, the group leader noticed that BC, one of the CABG participants, stroked his chest during the relaxation. When she later asked him about this he said that he was soothing his body and "giving it some loving care". Participant RB felt no pain in his wrists during the relaxation but as soon as he came back to awareness, he felt the pain again. For him it was a revelation to be free of pain without the use of drugs. He also felt he relaxed more than before and was like

“jello” on the floor. He had experienced great difficulty with the relaxation up until then and felt that he had reached a new level of relaxation. This may have been because this relaxation exercise related to his bodily experience phenomenologically as opposed to being an exercise that just relaxed the various muscle groups. This exercise was an extremely useful one for all individuals and it is recommended that it be included as a specialised relaxation exercise for MI survivors.

## 7.2 An evaluation and discussion of the format of the intervention

7.2.1 Length of the intervention: Twelve sessions did not provide sufficient time to present the vast range of concepts presented in the intervention. In planning the programme, the researcher had initially elected to reduce the length of the course because she thought that it was unnecessary to have too many sessions where general discussions took place. In hindsight, this was a poor decision. An additional two sessions would have provided an opportunity for material to be presented over several sessions and for practising the various exercises, as well as for reinforcement and in-depth discussions in smaller groups. A revised intervention using the same material over a 14-week period is discussed in Chapter 8.

7.2.2 A group intervention format: As established in previous research with MI survivors (Billings et al., 1996; Blumenthal et al., 1997; Bracke & Thoresen, 1996; Friedman et al., 1986; Fullard, 1982; Ornish et al., 1983, 1990; Rahe et al., 1979), the group experience provided a sense of social support and interpersonal connectedness. All participants indicated that they enjoyed the group experience particularly with regard to sharing

information about their medication and the experience of their coronaries and or by-passes. However, for some of the participants in this study, the group experience provided mainly an opportunity for skills training and practice with new information rather than a place for processing of emotions. Roskies (1987) and Yalom (1994) too found that group sessions are not always an appropriate setting for disclosing and working with traumatic and difficult experiences.

As found by several authors (Bracke & Thoresen, 1996; Friedman et al., 1986; Ornish et al., 1990), all participants responded well to working in smaller groups and benefited from the feedback from peers. The importance of working in small groups of twos and threes to allow for integration of material already presented was highlighted in Session 9. This session was set aside for group interaction and no new material was introduced. By this time participants had some experience of working in smaller groups and levels of trust had developed so that safe levels of self-disclosure were possible. The group leader went around to the two groups and joined in for half an hour with each, taking the opportunity to help individuals make connections on a deeper level to the root cause of their reactions.

All participants responded very positively to this experience and enjoyed and benefited from working together, rating their satisfaction with this session as a 3 or a 4 (see Appendix SS). They also felt that the input from the group leader about their individual issues was very helpful. An observation of the smaller group processes indicated that individuals attempted to use the information from the previous sessions to express their

feelings and to communicate empathically. This was noticeable to the point that the group leader's colleague, who had unfortunately missed a couple of sessions, made a positive comment about the improved group cohesion and the smaller group interactions. On a practical note, the group leader omitted to tape-record the smaller group interactions. As a result, some of the very important smaller group dynamics were not captured. It is therefore recommended that future studies address this issue by tape-recording the smaller group interactions.

7.2.3 A combination of group and individual sessions: While the researcher had not included individual sessions in the planning stage of the programme, the individual sessions conducted at 18-month follow-up were invaluable for obtaining further data and for working with the various psychological issues that had come into focus for the participants during the programme (discussed in section 7.3). Therefore, while this study supports previous findings that group psychotherapy is beneficial for individuals suffering from CHD, it also provided evidence that a combination of group and some individual sessions is most beneficial. It is therefore recommended that future studies investigate the use of a combination of group and individual sessions. A proposal for a revised format in which individual sessions can be employed in parallel with a structured group intervention is outlined in Chapter 8.

7.2.4 Long-term follow-up: At 18-month follow-up all individuals who completed the follow-up questionnaires indicated that they remembered most of the information presented in the intervention (see Table 3). Information not recalled was left blank.

Table 3

Summary of six-week and eighteen-month follow-up questionnaire scores

Introductory question at six-week follow-up: (Scores are the first column for each individual)

Please could you rate the following concepts used in the programme in terms of their usefulness to you. Please use a scale of 0 to 10 with 10 being the highest and 0 the lowest score. If you do not remember the exercise or the concept, please leave the column blank.

Introductory question at 18-month follow-up: (Scores are the second column for each individual)

Please could you rate the following concepts used in the programme in terms of how well you remember them. Please use a scale of 0 to 10 with 10 being the highest and 0 the lowest score. If you do not remember the exercise or the concept, please leave the column blank.

	AvR		HP		JC		LR		RB	
1. How the heart works.	10	10	8	6	10	7	8	10	0	8
2. The Type-A behaviour pattern.	10	10	8	8	7	7	10	10	8	5
3. The Self-Monitor.	10	10	9	6	7	5	8	10	8	3
4. Stress and the stress response.	9	10	9	6	10	7	10	10	8	6
5. The Bombs and Fuses exercise.	8	10	8	5	6	7	8	10	5	4
6. Time urgency.	9	10	9	6	9	9	10	10	8	7
7. Time urgency awareness exercises.	10	10	9	6	10	9	10		8	7
8. Impatience, anger and hostility.	10	10	8	6	5	7	8	10	5	6
9. The Bait and Hook exercise.	10	9	8	6	5	6	8	10	4	
10. Identification of feelings versus thoughts.	9	10	6	5		5	7	10	10	8
11. Expression of feelings (using I messages instead of you messages).	10	10	6	5	3	5	8	10	8	8
12. Listening with empathy.	9	10	6	6	5	5	9	10	7	8
13. Self-esteem.	9	10	6	5		5	10	10	8	5
14. The conscious and the unconscious.	8	10	4	4		5	10	10		4
15. The self and other.	9	10	6	4		4	8	10		4
16. Emotions versus experiences.	7	10	6	5	7	4	7	10	8	8
17. The world as a mirror experience.	8	10	4	6		4	7		4	
18. The various defence mechanisms.	9	10	6	6	7	5	8	10	5	
19. The Triangle of Relating. (Child self reacts, adults self responds).	10	10	8	6		4	9	10	10	7
20. The mind-body concept.	10	10	4	5	9	4	9	8	5	
21. The meditation with the lived body experience of the heart attack or by-pass.	9	10	Ab- sent	5		4	8			8
22. The relaxation tape.	6	9	9	8	10	9	8	10	10	8
23. Relaxation and visualisation at the end of the sessions.	7	10	10	8	10	9	8	10	10	10
24. Working in pairs or small groups.	10	10	8	6	9	8	8	8	8	8
25. Group discussions.	10	10	8	6	9	8	7	10	6	8

While recall is not the same as integrating the information and living it, individuals were able to identify most of the key concepts presented in the study. Those individuals not discussed in the case narratives had also maintained the changes to their JAS scores achieved during the intervention (see Table 4). One of the participants, RB, had managed to do so in spite of devastating news about his daughter who had developed cancer, as well as a break-up in his personal relationship. Although he was very depressed he had not developed extreme traits in his TABP and was seeing a therapist to help him through his experience. It is those individuals who cannot change their TABP and those who cannot maintain the changes achieved on an intervention that are of concern for health care professionals, as they are most likely to suffer a re-infarction.

In the individual sessions, AvR and LR in particular were able to discuss at 18-month follow-up how they had integrated the information into their daily lives. Information that still made an impact on AvR was the metaphor of “R500s’ worth of energy for a R5 problem” for dealing with small issues with too much unnecessary energy, while LR was able to manage his anxiety by leaving for meetings earlier and by driving in the left-hand lane, the latter being an exercise that was set in Session 3. He also felt empowered by the information about the unconscious mind and its impact on behaviour.

### 7.3 A developmental analysis of the origins of the low self-esteem and insecurity underlying the compensatory nature of the Type A behaviour pattern

Although the successful modification of the TABP post-infarct is well documented (see Chapter 3), the results from the multivariate pre-post-test group comparison design

Table 4

Jenkins Activity Survey standard scores for this study

		COMPLIERS						DROPOUTS		
Global Type A		AvR	BC	HP	JC	LR	RB	EN	NH	UL
	A1	12,8	3,8	11,8	-5,4	14,0	4,6	-12,0	-2,2	-10,4
	R 2	5.1*		-6*	-10,2	18,0	-4*			
	F1	14,8:	4,6	-7*	-6,4	19,6:	-13*			
	F2	9,0		-6,4:	-3,8*	14,8	-9,8*	-11,6		
	F3	5,8*				7,2*				
Factor S	A1	15,6	0,8	6,0	-3,8	-1,4	10,0	-15,8	-7,2	-6,8
	R 2	19,4		-14,4:	-0,6	6*	-12*			
	F1	20,6:	1,2	-10,2:	-6,0	1,2	-12,4			
	F2	14,6*		-9,0*		-4,8:	-5,8*	-15,6	-16,0	
	F3	8,4*				-2,6*				
Factor J	A1	0,6	-9,6	-15,2	-5,0	6,6	0,2	-6,0		-3,0
	R 2			-19,8	-12,4	11,0	-5,8*			
	F1		-10,4	-20,4	-11,0	10,8	-4,4			
	F2			-18,2	-12,0:	-1,0	-8,4*	-14*		
	F3					13,2*				
Factor H	A1	10,4	15,4	15	-4,8	6,2	16,4	7,2	10,6	4,6
	R 2	-4,8*		-6,6:	-9	18,2:	-3*			
	F1	17,2*	7,4	-11*	0,8	15,8*	-2,4*			
	F2	0,4*		-11,6:	1,8*	7,2	-5*	-3,4*		
	F3	-12,8*				8				

\* Denotes more than five standard score difference

A1: Pre programme assessment interview

R2: Second research interview at the end of the programme

F1: Six-week follow-up interview

F2: Eighteen-month follow-up interview

studies reveal only that change did or did not occur. They say little about the process of change involved or which aspects of the intervention contributed towards this. Case study research that traces the process of participants' responses to an intervention, and which contributes towards existing case law explicating the complex processes underlying the development and maintenance of the compensatory nature of the TABP in MI survivors, is non-existent. The results from this multiple case study begin to address this lacuna.

By the end of the group phase of this study, it was apparent to the researcher that increased awareness of the presence of the TABP, being taught how to identify and express emotions and to communicate empathically, an understanding of general psychological concepts to facilitate insight into the compensatory dynamics of the pattern and an awareness of the mind-body relationship post-MI, did not result in a lessening of the pattern for LR. While AvR successfully modified her TABP, she was unable to maintain the changes she had achieved during the intervention. As found by Bracke and Thoresen (1996), it was evident to this researcher that behavioural drills and cognitive structuring helped to a point but that exercises of this nature did not directly address the low self-esteem that contributed towards the development and maintenance of the pattern. The psychotherapy sessions conducted with these individuals at 18-month follow-up provided insight into why LR had not made any significant changes during the group phase of the study and why AvR struggled to maintain the changes that she had achieved.

The case narratives provided evidence for the importance of conducting a developmental analysis of the low self-esteem and insecurity that underlie the TABP. In particular, there was support for hypotheses derived from the relational model and from the social learning model. The relational model perspective first outlined in Chapter 2, section 2.8 (d), posited that the low self-esteem and insecurity that underlie and maintain the compensatory nature of the TABP originate in the nature of the earliest relationship between mother and child.

According to this model, from the very first experience of her infant, the mother plays a vital role in establishing foundations that facilitate her growing child's emotional growth and development. This occurs by means of her empathic attunement to, and appropriate mirroring of, her child's physical and emotional needs. The role of the mother in helping her child to understand his or her emotional world, as well as a supportive father or partner who enables the mother to carry out this role, is vital for establishing a foundation for a healthy sense of self (Winnicott, 1971). Infants who do not receive good-enough mothering will experience difficulties concerning self-esteem issues as well as an inability to tolerate and manage their emotions. This differs from an inability to identify and express emotions, although they are linked, as an inability to tolerate emotions negatively impacts on one's ability to make sense of, and to communicate about, feelings and experiences. This results in an inability to use emotions as feedback about reactions to events in the world (Greenberg & Pascual-Leone, 1997).

Poor self-esteem and an inability to manage, tolerate, identify and express emotions provide a negative feedback loop in terms of inadequacy and failure to successfully manage one's reactions to experiences in the world. One particular way of coping psychologically is to develop a compensatory mechanism such as the TABP so that uncomfortable beliefs about the self as unworthy and the difficult feelings that may arise because of this can be kept out of awareness. A social learning model perspective emphasises the importance of the family and societal milieu for conditioning a child as to how success and achievement may become a means of winning approval and validation. It is these conditions which foster the development of the TABP. While Type A behaviour is commonly present in most individuals who live in a Western society, it is the extreme to which the pattern is lived that creates the potential for CHD in an individual who has a genetic predisposition. If such an individual were also to live a sedentary, unhealthy lifestyle and create the primary and secondary risk factors for CHD, then his or her chances of suffering from the advanced stages of CHD are intensified.

While the intervention model in this study was designed to help participants to identify and to express emotions and to improve their styles of communication, it did not allow for the processing of certain childhood and life experiences that were too personal to be disclosed in the group. Although both AvR and LR experienced enormous benefits from the intervention model, they were unable to implement the techniques consistently because they could not control the emotions which impelled them to react, as opposed to being able to respond to situations. As a result of being unable to tolerate and manage difficult emotions, AvR and LR both had an accumulation of emotions and experiences

that needed to be processed in individual therapy, the group sessions being an inappropriate forum for disclosure about these. To use the group for this purpose would have sacrificed the here-and-now interactional focus of the group (Yalom, 1994). Roskies (1987) too found that the group was not always the appropriate place for these levels of self-disclosure. LR in particular felt that he would not have discussed with the group those issues worked with in the individual sessions. Addressing their issues required some work to "reconstitute" the past so that its impact in the now was lessened (Yalom, 1994). The individual sessions were structured to deal with these issues.

AvR's mother was narcissistic and emotionally distant and AvR had to try to make sense of her emotions in her own way. LR's emotional dependency on his mother did not facilitate a growing sense of self-efficacy and healthy independence and it was exacerbated by LR's hospitalisation at age two. LR's mother did not help him to overcome his emotional dependency and did not facilitate a healthy separation from her. In addition to struggling with separation from his mother, numerous experiences required LR to be emotionally independent beyond his years and these added to his separation fears. AvR's mother narcissistically imposed her own needs and did not provide adequate mirroring for AvR to develop a healthy sense of self, while LR's mother did not help him to gain a sense of separateness from her and remained enmeshed and overly involved with him.

These mothers did not, therefore, foster a healthy ability in their offspring to manage their emotions. They also did not help their children to identify and name their feelings.

Instead they taught their children a vocabulary about day-to-day objects and were successful in dealing with the structural, practical nurturing needs, such as food, clothing and shelter. AvR's and LR's inability to label emotions was evident in the individual sessions. In addition to this, the absence of AvR's father left her to deal with her very difficult mother, while LR's very critical, distant father added to his need to remain close to his mother.

For both AvR and LR, failure to receive good-enough mothering contributed towards a poor sense of self-worth and an inability to tolerate and transform difficult feelings into meaning as a child and eventually as an adult. Both AvR and LR grew up in families and in an era where emotions were dealt with in a practical manner and where success and achievement were emphasised. In a post-war atmosphere, this was a necessary means of overcoming the economic difficulties of the time and both of them learnt how to achieve in order to win approval or to improve self-esteem. Both individuals were genetically predisposed to CHD, lived lifestyles that resulted in the development of primary and secondary risk factors, and both experienced traumatic life events leading up to their MIs.

Within the environment of trust created by the context of individual therapy, AvR was able to express her sadness that her mother had never taken the time to listen to her experiences and feelings, as well the other issues in her life that had built to a crescendo before her MI. Up until the individual psychotherapy sessions, AvR had felt angry after her MIs and even the occurrence of CHD signs and symptoms, or the life-threatening event itself, were not sufficient motivation for change and compliance (Burke et al.,

1997; Frewen, 1994; Roskies et al., 1979). The debilitating depression and anxiety that became evident at the follow-up interviews had prevented change and complicated her recuperation. This concurs with similar findings by Brown and Munford (1983-84).

Because she only joined the programme four years after her MIs, her mood state immediately after the event could not be ascertained. It is however likely that her depression was present before her first MI because of the major precipitating life events. The intervention created a new awareness for AvR and as a result, her depression was more evident at follow-up than it had been when she started the programme. This negatively impacted on her ability to maintain the changes that she had achieved during the intervention. The support that she received in terms of helping her to find the appropriate medical care within the state system was extremely positive for her and in some way addressed the wish to be taken care of that she expressed at the end of the programme and which she had carried with her since childhood. The experience of being heard and understood was very containing for her and it was only after the individual sessions that AvR was able to lose weight and to start exercising, something she has continued to do over an extended period. Her global Type A and Hard-Driving and Competitive scores on the JAS (see Figure 5, p. 143), changed for the first time in the study, indicating that the difficult emotions that were driving and maintaining her TABP had finally been addressed. She has repeatedly thanked the researcher for “changing her life”.

LR's extreme Type A traits continued to be fuelled by his high levels of anxiety and the origins of this needed to be addressed in order to facilitate change. This involved working with the separation anxiety and dependency issues that originated in early childhood. LR was unable to tolerate and manage his anxiety which surfaced whenever he was faced with potential disapproval, abandonment or rejection and in the one-on-one sessions he gained insight into how his past experiences influenced his current behaviour. LR found it extremely helpful to understand how the hospital experience as a child had negatively affected his ability to achieve a healthy separateness in his relationships. Empowering him to understand how the past was impacting on the now, as well as how to manage his anxiety that was evoked at any signs of abandonment, was a focal point in the individual sessions. For example, when he was waiting for a call from his partner and he found his anxiety mounting, he was taught how to calm and soothe himself by understanding and validating the origin of the feelings. In the individual psychotherapy sessions, he was finally given the opportunity to express his fears at being abandoned and left alone at the hospital, something that was not possible in his family. The process of learning how to identify and manage his emotions was very helpful for him and he felt that, as a result, he was less clingy in his current relationship.

By working on these issues LR managed to say goodbye at the end of the eight sessions without any of the previous anxiety that had been evident at the end of the programme. His score on the global Type A component of the JAS had also improved markedly for the first time since starting the programme (see Figure 13, p. 192). This finding indicates the important role played by separation anxiety in maintaining LR's need for the

compensatory pattern. While other researchers have suggested that anxiety maintains the pattern (Bracke & Thoresen, 1996), none have explored the origins of this from within the mother-child relationship and early childhood experiences. Concerning his anxiety after his MI, although this is a common reaction among MI survivors (Berg-Larsen, 1970; Kaufmann et al., 1985-86; Wiklund, 1984), LR's anxiety was prevalent prior to his MI and was clearly part of his pre-morbid personality because of his earliest childhood experiences and it is therefore not surprising, as found by Kaufmann et al. (1985-86), that it was exacerbated after the MI.

In the individual sessions, AvR and LR learnt to work with particular incidents from their past and to manage the accompanying emotions from their respective histories that contributed to their low self-esteem and insecurity. By dealing with these issues in individual sessions, they were able to connect current reactions with past experiences and both experienced significant cognitive, behavioural and emotional shifts that have been maintained for an extended period of time. This created insight, understanding and relief from the burden of not being heard for so long. This improved their confidence about managing day-to-day stressors and helped them to change aspects of the TABP that had not yet been altered on the programme.

The case narratives outlining the process of change during the 12-week intervention and the individual psychotherapy sessions provide new case law material concerning a developmental analysis in relation to MI survivors. These findings are important for future research and indicate that, in addition to changing the TABP and addressing its

compensatory mechanisms, interventions with MI survivors must address the developmental issues that underlie the presenting symptoms. This includes the behaviour pattern itself, the low self-esteem and insecurity, as well as depression and anxiety. Omission to do so results in the ongoing maintenance of the compensatory pattern. Interventions should therefore make individuals aware of the developmental link between their earliest relational constellations, the impact of this link on relationships with the self and with others, and how and why it can result in the development of a compensatory mechanism such as the TABP. The suggested practical implementation of this type of material into the 12-week intervention model designed for this study is outlined in Chapter 8.

## CHAPTER EIGHT

### Conclusions and Recommendations

#### 8.1 Limitations of the study and thoughts for future research

##### 8.1.1 Lack of physiological data

Larger multivariate studies included physiological tests as opposed to only emotional and behavioural evaluations, as did this study. The inclusion of blood pressure and cholesterol levels as well as results from an effort ECG would be non-invasive measures that could be used as additional comparative baseline data in future case study research with MI survivors.

##### 8.1.2 Participants

It is unfortunate that the sample size in this study was rather small. The researcher had envisaged a larger group but was unable to recruit more participants even after adjusting the inclusion criteria. The participants for this study are not therefore representative of all individuals with CHD as they constitute a particularly motivated group of individuals who responded to a newspaper advertisement. In addition, the minimal response from the greater community resulted in participants being accepted who did not fit the original inclusion criteria (e.g., the CABG participants). Many were older than was planned and had experienced their MIs some time before the programme commenced. Although the sample consisted of a mix of MI and CABG participants, this did not negatively impact on the group dynamics.

The Asian ethnic group was not represented in this study and this is problematic, as in South Africa the incidence of death due to CHD is highest for this population group (Bradshaw et al., 1995; Bradshaw et al., 2002). Although cause of death statistics do not reveal preventative and curative courses of action taken by individuals identified with symptoms of CHD (e.g., lifestyle changes and medication), it would be important to target this ethnic group for prevention of re-infarction and sudden cardiac death. Also with increasing numbers of Black Africans adopting a Western lifestyle, it is imminent that they too will eventually become a high risk group for CHD (Bradshaw et al., 2002; Medical Research Council of South Africa News, 2001). Future programmes need to test the amenability of the content of the intervention with a diversity of ethnic groups.

The very small sample size means that generalisation from the results must be made with caution. Nevertheless, the findings of the study do support a number of conclusions about the origins of the low self-esteem and insecurity that maintain and drive the TABP. While the abundance of pre-post-test group comparison design interventions with individuals with CHD to date has provided substantive data on how to modify the TABP, these interventions have not added to existing case law pertaining to the complex processes underlying the compensatory nature of the TABP. The multiple case-based design of this study has explored the minute and personal process of how and why individuals did or did not change in response to the intervention and the findings indicate the importance of including a developmental analysis for understanding and addressing the origins of the low self-esteem and insecurity underlying the TABP as a compensatory pattern. These findings have been discussed in detail in Chapters 6 and 7.

### 8.1.3 Limitations of the data collection methods

(a) The Profile of Mood States (POMS): The POMS was easily administered and provided adequate data about the participants' mood states on a weekly basis. Although the form is reported to be valid even when administered on a weekly basis, the possibility of participants falling into a response set when the form is administered over an extended period of time should be considered as many participants regularly marked "zero" as a response to questions. This may be an element of the Hard-Driving and Competitive behaviour where individuals did not want to be seen as doing badly on an exercise. On a practical note, the group leader did not always make notes about daily occurrences that could have impacted on individuals' responses. Research interviews provide an opportune moment to check for such weekly life events that, in addition to the effects of the intervention, might have contributed to changes to mood profiles.

A further consideration is whether individuals were rating their reactions to content in the programme, rather than events that had occurred during the previous week. Because the questionnaire was completed at the end, rather than at the beginning of the sessions, this is a distinct possibility. It is recommended that future studies that use the POMS ask individuals to briefly share what kind of week they have had and that any information obtained is compared with the POMS scores as an additional source of external validation of the data collected. Other tools for measuring depression, such as the Beck Depression Inventory scale (Beck, Steer & Brown, 1996) can also be used to measure the intensity of the depression that is so prevalent for MI survivors, although the latest version of the Beck (BDI R – II) only allows for measurement of the preceding two weeks in line with

DSM-IV guidelines for assessing depressive symptoms (Psychological Corporation Website, 2003, <http://www.harcourt-uk.com>).

(b) The Jenkins Activity Survey (JAS): The small sample size and the use of the JAS as a method of assessing the TABP, as opposed to the SI/VSI used in the large multivariate studies, preclude any conclusions in respect of the significant presence of the Type A profile in individuals with CHD (Friedman & Powell, 1984; Friedman & Rosenman, 1959; Friedman et al., 1996; Rosenman et al., 1964) or that MI survivors under the age of 60 are invariably Type As (Friedman & Ghandour, 1993). The usefulness of the JAS was in how it provided a valuable starting, middle and end-point for monitoring whether or not aspects of the Type A pattern were modified during the course of the intervention. While participants were only shown their scores at the end of the programme so as not to influence the results of the study, individuals found it very useful and encouraging to view their scores in graphical form.

Table 5 outlines a comparison of the mean standard JAS scores obtained at the initial assessment for the MI survivors in this study with Fullard's (1982) group and with those standard scores tabled for the WCGS in the JAS manual (Jenkins et al., 1979). Jenkins et al. (1979) consider a difference of more than five standard scores to be significant. The mean scores for the MI survivors in this study all fall within the ranges reported by the JAS manual (Jenkins et al., 1979, p22). Fullard's (1982) group presented with a significantly higher Hard-Driving and Competitive score at the commencement of his

Table 5

Comparison of Jenkins Activity Survey mean standard scores for this study with other studies

	N	Type A	Factor S	Factor J	Factor H
Frewen (2005) <sup>1</sup>	3	7,2	3,4	0,8	3,8
Fullard (1982)	9	4,8	6,0	-6,6	12,2*
JAS Manual	4,4	3,2	3,2	0,8	3

\* More than five standard score difference

Note: The mean score for Factor J is for two participants as the third was retired

<sup>1</sup>This refers to the present study

study than the individuals in this study. The JAS scores for the individuals in the current study were therefore comparable with the scores from other studies. Table 4 (see p. 266) presented the JAS standard scores for participants in this study before and after the intervention. The sample in this study consisted of a mix of both Type As and Type Bs as measured by the JAS. Four of the nine individuals in this study presented with Type B profiles as measured by the JAS. One of the Type Bs remained on the programme until completion while the other three dropped out. The changes for participants AvR and LR have been discussed in detail in the case narratives. Participants HP, JC and RB made significant changes of more than five standard scores to the TABP during the intervention. These changes had been maintained at long-term follow-up. Participant BC stayed on the programme until the end but did not attend the sessions regularly. His scores do not reflect any change.

The profiles for some of the individuals who rated themselves as Type B on the JAS are questionable. Denial of the presence of the pattern and how an individual's distorted perception of his or her behaviour will yield a skewed result has been noted by the authors of the JAS and other researchers (Friedman et al., 1986; Jenkins, 1971; Jenkins et al., 1979). Although having an MI may result in behaviour change for some individuals (Friedman et al., 1986; Jenkins, 1979; Matthews, 1988; Roskies, 1987), those individuals who rated themselves as Type B on the JAS in this study may in fact have been Type As who denied having the profile (Jenkins et al., 1979). Participants NH and EN are examples of such individuals and possible pointers for this were obtained from the assessment interview, observations of group interactions and feedback sheets.

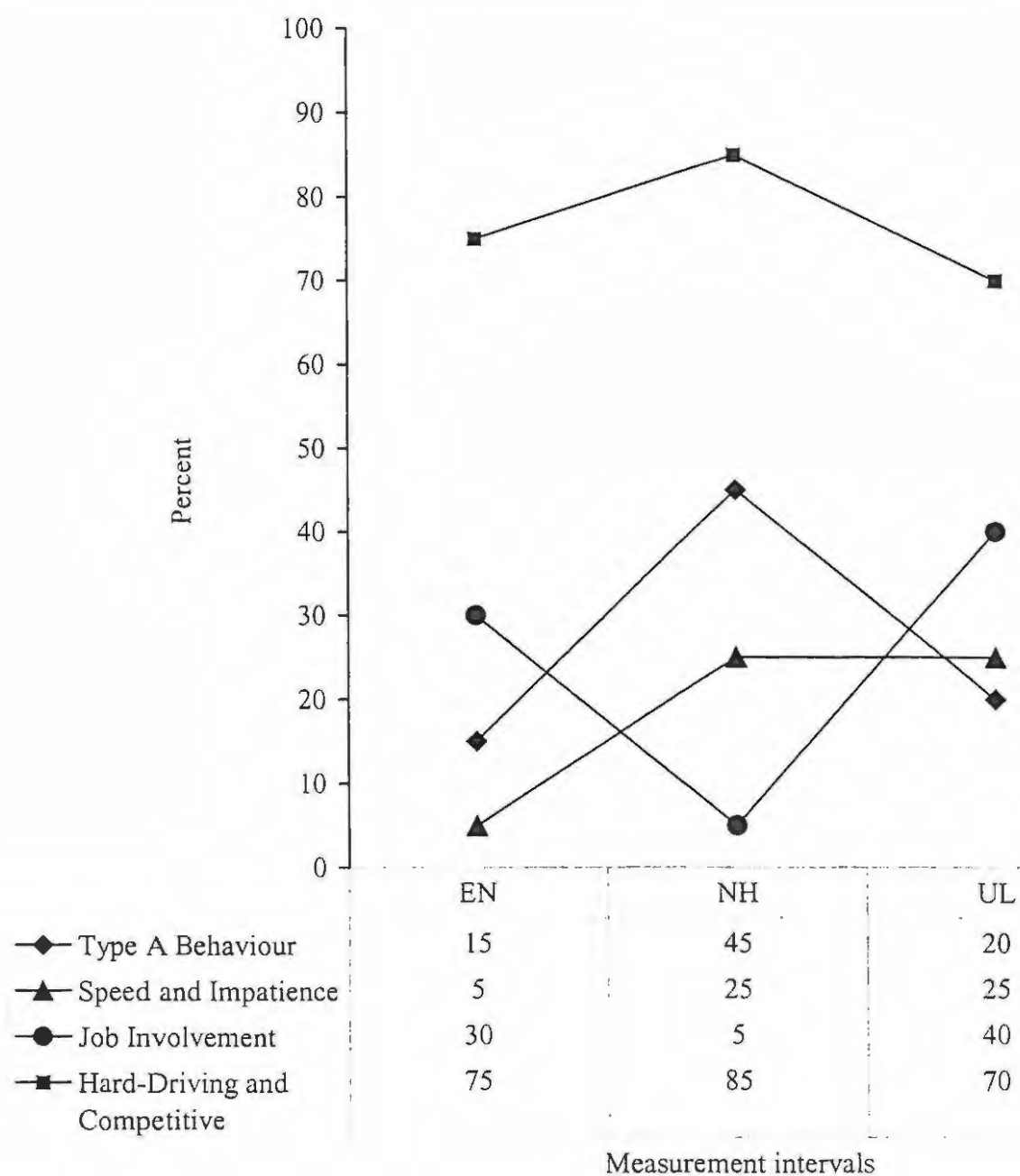
NH dropped out of the programme after Session 2 in which a discussion of the TABP took place. In the feedback form he indicated that he understood and identified with the material presented on the TABP and also rated himself as clearly presenting with the pattern (a 4 on the feedback sheet, see Appendix LL). However, on the JAS he rated himself as being Type B. In the assessment interview he acknowledged that he was persuaded to attend the programme by his wife and also denied having had an MI. He was potentially a high-risk patient for non-compliance because of the high level of denial (Berg-Larsen, 1970; Kaufmann et al., 1985-86; Sobel, 1969; Soloff, 1977-78) but was included in the study to boost the numbers in the group (see Chapter 5, section 5.1.5).

EN, who had his MI at the age of 58, rated himself as Type B on the JAS with only a high Hard-Driving and Competitive score on the JAS. However, he may well have been rated as Type A on the SI/VI because of his extreme hostility, aggression and psychomotor activities at the assessment interview and the four sessions that he did attend. Because no pre-infarct psychological assessment was carried out, it cannot be ascertained if EN would have presented as Type A on the JAS before his coronary. However, post-infarct, he was a very self-involved, hostile man who would not allow for any collaborative alliance with the group leader or with members of the group. His level of denial about the implications of having had an MI was extreme and this added to his defensive and unapproachable manner. This was his mind-set when he joined the programme and it added to his difficulty with the programme.

It is worth noting that all the dropouts from the programme presented with exactly the same Type B profile. That is, with only an extreme Hard-Driving and Competitive score (see Figure 30). There is a small possibility that individuals with this profile may be potential non-compliers on intervention programmes. However, two of the three dropouts, namely EN and NH, were also unable to accept the implications of their MIs. NH denied having experienced an MI, and EN was in extreme denial about his feelings after his MI when he started the programme. It is recommended that such individuals be included in group interventions, as the small amount of interaction did have some impact for EN. Perhaps the redesign of the intervention (see below) which incorporates individual sessions may facilitate more compliance from potential dropouts like EN. However, future research should consider if the profile presented by these non-compliers, that is, a high Hard-Driving and Competitive component of the TABP after an MI, contributes towards non-compliance with psychological interventions with MI survivors.

Certain problems were noted with the JAS. The validity of the JAS is questionable for retired individuals or those over the age of 65 (Jenkins et al., 1979) because of the number of questions that monitor job involvement. While the researcher was aware of this criticism at the start of the study, she had misjudged the problems that could arise because of this. LR was over 65, as were two of the individuals who dropped out of the programme. AvR, LR and one other participant were retired. In the JAS, the questions that pertain to job involvement (Questions 42-46) actually measure the Time Urgency and Hard-Driving and Competitive traits of the TABP. For example, Questions 42 and 43 respectively ask an individual how much effort she or he "puts forth" and how

Figure 30

Jenkins Activity Survey scores for all dropouts at the assessment interview

responsible she or he is. These traits tend to remain fairly consistent in a variety of tasks attempted by Type As, regardless of retirement and do not apply only to the work environment. This confused individuals. LR and AvR attempted to answer these questions some, but not all of the time. As a result, their scores on the Job Involvement and the global Type A components varied because of this. A rescoring of the JAS without Factor J would give a skewed impression of the Time Urgency and Hard-Driving and Competitive components. The authors of the JAS (Jenkins et al., 1979) recommend that to avoid influencing responses, no instructions be given to participants about completing the form. To avoid this confusion it is suggested that the JAS not be used for retired individuals.

The scoring of the JAS was extremely time-consuming and the possibility of errors occurring in adding and transforming the raw scores into standard scores was evident in this study. Even after re-checking the scores, errors were found at a later point. Although the JAS may be a useful tool for assessing certain behaviours and for providing scores that can be presented graphically to individuals, it should be used with an awareness of these pitfalls.

(c) The Spouse Rating Scale (SRS): The SRS was designed for this study to address the criticism in the literature that the perception of the spouse provides important supportive information about the behaviour and psychological frame of mind of the MI survivor (Condon, 1987; Yarnold & Bryant, 1988). Although its psychometric properties were not established, the tool provided information that could be compared with the JAS scores.

Most times the ratings of the spouse were comparable with the perceptions of the participants who remained on the programme. The spouses of EN and HP, two of the three dropouts, rated their Time-Urgent behaviour as moderate to bad while the participants themselves rated their behaviour as good. The impact of denial on self-rating of the TABP post-MI was discussed above. AvR's husband indicated at six-week follow-up that he had noticed that his wife was coping much better with daily stressors. The way that he rated her behaviour on the SRS did not however reflect these positive changes suggesting that either he was in a response set about how he perceived her behaviour, or that the form did not account for subtle changes. The concept of a spouse rating scale is important and, as raised by others, should be considered in planning psychological interventions with MI survivors. An initial assessment with the spouse, as well as follow-up interviews, could be additional options for gathering information of this nature.

## 8.2 Reluctance of medical professionals to refer to psychological interventions

The assessment interview revealed that none of these individuals were informed by their cardiologist or general practitioner about the psychological factors that contribute towards an MI. Considering that major life events are prevalent precursors to the incidence of an MI (Byrne, 1983; Glass, 1977; Kits van Heijningen & Treurniet, 1966; Rahe et al., 1973; Stephanos, 1982; Twisk et al., 1999; Zellermyer, 1955; Zhou et al., 1991) and that an MI is a life-threatening experience that has a major psychological impact on the individual, these should be addressed in order to facilitate compliance and wellness. The possibility of psychological counselling was not suggested to any of them. As a result their emotional reactions to their MIs were overlooked and these reactions

influenced their levels of compliance. In particular, AvR's depression was still evident four years post-infarct and had never been addressed, although she acknowledged that she never showed her depression to her doctors and usually presented with an air of bravado. The need for medical practitioners to be alerted to the profound impact of these psychological factors on rehabilitation is evident.

The poor response to the call for participants for this study is a further indication of the lack of credibility of psychological rehabilitation for cardiac patients in the eyes of the medical profession in South Africa. Lifestyle and medical interventions are still emphasised at local rehabilitation centres at the expense of psychological interventions. The further development of a theoretical framework that supports the kind of information obtained from this study is vital for changing the current perceptions of medical professionals concerning the importance of the psychological rehabilitation of MI survivors. It is evident that there is a considerable need to raise such awareness and to promote the education of medical practitioners if there is to be an appropriate integration of medical and psychological interventions for this class of patients. The findings of the present study, though on a small scale, provide useful material that could be used to this end. The researcher will therefore endeavour to use her resources as one of a panel of experts on the Heart Foundation of South Africa's *Heart* magazine to disseminate the findings from this study and to raise awareness among medical professionals and lay persons about psychologically rehabilitating MI survivors.

### 8.3 Summary of the recommended changes to the format of the intervention

The in-depth discussion in Chapter 7 on the format of the intervention indicates a number of positive changes that could enhance the format of the programme. These are as follows (see Appendix ZZ for revised outline):

- Conduct separate assessment and research interviews with the spouses to provide in-depth supportive information concerning participants' personality styles and behaviour changes pre- and post-MI, as well as during the intervention.
- In addition to collecting information about the intervention, the research interviews can be used to obtain information about significant weekly life events and mood states to cross-reference with the POMS.
- Because family dynamics and relationships are affected by the advent of an MI, it is suggested that the spouse be included in the first three sessions on the workings of the heart, the TABP and stress, and their link with CHD.
- It is highly recommended that a combination of group and individual sessions be used. These individual sessions could be conducted during the intervention, as well as at the end, depending on available resources. For example, individual sessions could be scheduled between each session or alternatively, three individual sessions could be conducted between Sessions 4, 5 and 6 and Sessions 12, 13 and 14. This timing is suggested so that individuals have an opportunity to

engage with some of the material and the homework exercises. Information gathered at the initial assessment and during the group sessions could be used to identify the major themes that evolve for individuals as a result of the intervention and these can be used as a focus for a brief psychodynamic psychotherapy suitable to the needs of each individual.

- In addition to the structured intervention, the ongoing support for individuals by means of regular group meetings would be extremely beneficial. That is, resources permitting, a monthly meeting or even one every two months would enable participants to maintain the necessary motivation to continue working on the issues identified during the programme.

#### 8.4 Summary of the recommended changes to the lecture content of the intervention

Based on the discussion in Chapter 7, the following changes to the content of this short-term intervention are recommended (see Appendix ZZ for revised outline):

1. In Session 1, include the function of the various medications prescribed for individuals with CHD.
2. Before Sessions 5 and 6, include an additional session that consists only of small-group discussions without introducing new material. This will give individuals an opportunity to discuss the TABP and the homework exercises in small groups.

3. Intersperse some of the material from Session 7 as follows:
  - Introduce the concept of emotions and experiences as clues for understanding the drive behind behaviour in Session 2, along with the presentation of the identification of the TABP. Also briefly discuss the concept of the conscious and the unconscious. These basic psychological principles would render the Self-Monitor homework exercise for Session 2 more understandable.
  - Introduce the concept of the self and other and using experiences as a mirror in the session that presents the expression and identification of feelings and empathic listening (Sessions 5 and 6, of this study). Information about the earliest relational constellations could be included at this point.
  - Introduce the material on defence mechanisms and narcissism in Session 7 followed by small-group discussions.
  - Summarise all the psychological concepts in an additional session following Session 7 using the homework sheets completed thus far as topics for small-group discussions.
4. Use the revised homework sheets for Sessions 2 – 4 which include examples of possible answers. The entries made on the homework sheets should be used as topics for group discussions.
5. Run the intervention over a period of 14 weeks.
6. Provide for ongoing support group meetings on a monthly basis.

### 8.5 Concluding remarks

This short-term psychotherapeutic intervention model successfully addressed those pertinent issues close to every MI survivor's heart. In the words of one of the participants who completed the programme:

“I was struck by the psychological approach to the programme. You're prescribed medicines and exercise plans after a heart attack and given a false sense of security that you'll be okay. Unless the underlying psychological and behavioural patterns leading to a heart attack are dealt with, it's just a matter of time before the next one strikes.”

(See Appendix AAA.)

A challenge that remains for the researcher is to ensure that the findings are disseminated to the medical fraternity and cardiac rehabilitation programmes in South Africa so that more MI survivors can experience the benefits of being psychologically rehabilitated post-infarct.

## REFERENCES

- Allan, R. (1996). Introduction. The emergence of cardiac psychology. In R. Allan & S. Scheidt (Eds.), *Heart and mind: The practice of cardiac psychology* (pp. 3-14). Washington, DC: American Psychological Association.
- Allan, R., & Scheidt, S. (1996). Group psychotherapy for patients with coronary heart disease. *International Journal of Group Psychotherapy*, 48(2), 198-214.
- Arlow, J. (1945). Identification mechanisms in coronary occlusion. *Psychosomatic Medicine*, 7, 195-209.
- Atkinson, R. L., Atkinson, R. C., & Hilgard, E. R. (1983). *Introduction to psychology*, (8<sup>th</sup> ed.). New York: Harcourt Brace Jovanovich.
- Bandura, A. (1977). Self-efficacy: Towards a unifying theory of behavioral change. *Psychological Review*, 84, 191-215.
- Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *Manual for the Beck Depression Inventory-II*. San Antonio, TX: Psychological Corporation.
- Becker, M. H., Haefner, D. P., Kasl, S. V., Kirscht, J. P., Maiman, L. A., & Rosenstock, I. M. (1977). Selected psychosocial models and correlates of individual health-related behaviors. *Medical Care*, 15, 27-46.
- Berg-Larsen, R. (1970). A psychodynamic evaluation of patients with myocardial infarction with regard to their future occupational and social adjustment. *Psychotherapy & Psychosomatics*, 18, 394-298.
- Bernstein, D. A., & Borkovec, T. D. (1973). *Progressive relaxation training. A manual for the helping professions*. Champaign, IL: Research Press.
- Billings, J. H., Scherwitz, L. W., Sullivan, R., Sparler, S., & Ornish, D. M. (1996). The Lifestyle Heart Trial: Comprehensive treatment and group support therapy. In R. Allan & S. Scheidt (Eds.), *Heart and mind: The practice of cardiac psychology* (pp. 233-253). Washington, DC: American Psychological Association.
- Bion, W. (1959). Attacks on linking. *International Journal of Psycho-Analysis*, 40, 308-315.
- Birks, Y., & Roger, D. (2000). Identifying components of type-A behaviour: "Toxic" and "non-toxic" achieving. *Personality and Individual Differences*, 28, 1093-1105.

- Blumenthal, J. A., Emery, C. F., & Rejeski, W. J. (1988). The effects of exercise training on psychosocial functioning after myocardial infarction. *Journal of Cardiopulmonary Rehabilitation*, 8, 183-193.
- Blumenthal, J. A., Jiang, W., Babyak, M. A., Krantz, D. S., Frid, D. J., Coleman, R. E., et al. (1997). Stress management and exercise training in cardiac patients with myocardial ischemia. *Archives of Internal Medicine*, 157, 2213-2223.
- Booth-Kewley, S., & Friedman, H. S. (1987). Psychological predictors of heart disease: A quantitative review. *Psychological Bulletin*, 101, 343-362.
- Bowlby, J. (1969). *Attachment*. London: Hogarth.
- Bracke, P. E., & Thoresen, C. E. (1996). Reducing Type A behavior patterns: A structured-group approach. In R. Allan & S. Scheidt (Eds.), *Heart and mind: The practice of cardiac psychology* (pp. 255-290). Washington, DC: American Psychological Association.
- Bradshaw, D., Laubscher, R., & Schneider, M. (1995). *Estimated cause of death profiles for the nine new provinces based on the 1990 data*. Technical Report. Tygerberg: Centre for Epidemiological Research in Southern Africa
- Bradshaw, D., Schneider, M., Dorrington, R., Bourne, D., & Laubscher, R. (2002). South African cause-of-death profile in transition - 1996 and future trends. *South African Medical Journal*, 92(8), 618-623.
- Brand, R. J. (1978). Coronary-prone behavior as an independent risk factor for coronary heart disease. In T. M. Dembroski, S. M. Weiss, J. L. Shields, S. G. Haynes, & M. Feinleib (Eds.), *Coronary-Prone Behavior* (pp. 11-24). New York: Springer-Verlag.
- Brown, M., & Goldstein, J. L. (1984). How LDL receptors influence cholesterol and atherosclerosis. *Science America*, 251, 58-66.
- Brown, M. A., & Munford, A. (1983-84). Rehabilitation of post MI depression and psychological invalidism: A pilot study. *International Journal of Psychiatry in Medicine*, 13(4), 291-298.
- Burell, G. (1996). Group psychotherapy in Project New Life: Treatment of coronary-prone behaviors for patients who have had coronary artery bypass graft surgery. In R. Allan & S. Scheidt (Eds.), *Heart and mind: The practice of cardiac psychology* (pp. 291-310). Washington, DC: American Psychological Association.
- Burke, L. E., Dunbar-Jacob, J. M., & Hill, M. N. (1997). Compliance with cardiovascular prevention strategies: A review of the research. *Annals of Behavioral Medicine*, 19(3), 239-263.

- Byrne, D. G. (1983). Personal determinants of life events stress and myocardial infarction. *Psychotherapy and Psychosomatics*, 40(1-4), 106-114.
- Cannon, W. B. (1934). Hunger and thirst. In C. Murchison (Ed.), *Handbook of general experimental psychology* (pp. 247-263). Worcester, MA: Clark University Press.
- Carmelli, D., Dame, A., & Swan, G. E. (1992). Age-related changes in behavioral components in relation to changes in global Type A behavior. *Journal of Behavioral Medicine*, 15(2), 143-154.
- Carmelli, D., Halpern J., Swan, G. E., Dame, A., McElroy, M., Gelb, A. B., et al. (1991). 27-year mortality in the Western Collaborative Group Study: Construction of risk groups by recursive partitioning. *Journal of Clinical Epidemiology*, 44, 1341-1351.
- Carney, R. M., Freedland, K. E., Eisen, S. A., Rich, M. W., & Jaffe, A. S. (1995). Major depression and medication adherence in elderly patients with coronary artery disease. *Health Psychology*, 14, 88-90.
- Carney, R. M., Freedland, K. E., Veith, R. C., & Jaffe, A. S. (1999). Can treating depression reduce mortality after an acute myocardial infarction? *Psychosomatic Medicine*, 61(5), 666-675.
- Catipovic-Veselica, K., Glavas, B., Kristek, J., & Sram, M. (2001). Components of Type A behaviour and two-year prognosis of patients with acute coronary syndrome. *Psychological Reports*, 89, 467-475.
- Celermajer, D. S. (1997). Endothelial dysfunction: Does it matter? Is it reversible? *Journal of the American College of Cardiology*, 30(2), 325-333.
- Chessick, R. D. (1987). Coronary artery disease as a narcissistic psychosomatic disorder. *Dynamic Psychotherapy*, 5(1), 16-29.
- Cohen, L., Ardjoen, R. C., & Sewpersad, K. S. M. (1997). Type A behaviour pattern as a risk factor after myocardial infarction: A review. *Psychology and Health*, 12, 619-632.
- Condon, J. T. (1987). Type A coronary-prone behaviour pattern and pathological narcissism. *Australian & New Zealand Journal of Psychiatry*, 21(1), 16-23.
- Conte, J. M., Schwenneker, H. H., Dew, A. F., & Romano, D. M. (2001). Incremental validity of time urgency and other type A subcomponents in predicting behavioral and health criteria. *Journal of Applied Social Psychology*, 31(8), 1727-1748.

- Cooper, A. M. (1986). Narcissism. In A. P. Morrison (Ed.), *Essential papers on narcissism* (pp. 112-143). New York: New York University Press.
- Cotran, R. S., Kumar, V., & Robbins, S. L. (1989). *Robbins pathologic basis of disease*. W.B. Saunders International Edition (4<sup>th</sup> ed.). Philadelphia, PA: W.B. Saunders.
- Cowie, B. (1976). The cardiac patient's perception of his heart attack. *Social Science and Medicine*, 10, 87-96.
- Deems, P., Duyvis, D. J., Beunderman, R., & Lie, K. I. (1984). Myocardial infarction: One year later. *Tijdschrift voor Psychologie*, 12(5), 46-54.
- Dembroski, T. M., Caffrey, B., Jenkins, C. D., Rosenman, R. H., Spielberger, C. D., & Tasto, D. L. (1978). Assessment of the coronary-prone behavior. In T. M. Dembroski, S. M. Weiss, J. L. Shields, S. G. Haynes, & M. Feinleib (Eds.), *Coronary-Prone Behavior* (pp. 47-54). New York: Springer-Verlag.
- Dongier, M. (1974). Psychosomatic aspects in myocardial infarction in comparison with angina pectoris. *Psychotherapy & Psychosomatics*, 23(1-6), 123-131.
- Donker, F. J. S. (2000). Cardiac rehabilitation: A review of current developments. *Clinical Psychology Review*, 20(7), 923-943.
- Downing, J., Littman, A., Scheer, J., & Pegg, B. (1992). Depressive symptoms in cardiac rehabilitation patients correlates with blunted training effect. *Journal of the American College of Cardiology*, 19, 257A.
- Dunbar, H. F. (1943). *Psychosomatic diagnosis*. New York: Paul B. Hoeber.
- Duruz, N. (1981). The psychoanalytic concept of narcissism. Part II: Toward a structural definition. *Psychoanalytic and Contemporary Thought*, 4, 35-67.
- Dutch Heart Foundation. (1995). *Cardiovascular diseases in the Netherlands*. Den Haag: Nederlandse Hartstichting.
- East, L., Brown, K., & Twells, C. (2004). 'Knocking at St Peter's door'. A qualitative study of recovery after a heart attack and the experience of cardiac rehabilitation. *Primary Health Care Research and Development*, 5, 202-210.
- Edwards, D. J. A. (1996). Case study research method: The cornerstone of theory and practice. In M. Reinecke, F. Dattilio, & A. Freeman (Eds.), *Cognitive therapy with children and adolescents: A casebook for clinical practice* (pp. 10-37). New York: Guilford.

- Edwards, D. J. A. (1998). Types of case study work: A conceptual framework for cased-based research. *Journal of Humanistic Psychology, 38*(3), 36-70.
- Edwards, J. R., & Baglioni, A. J. (1991). Relationship between Type A behavior pattern and mental and physical symptoms: A comparison of global and component measures. *Journal of Applied Psychology, 76*, 276-290.
- Edwards, D. J. A., Dattilio, F. M., & Bromley, D. B. (2004). Developing evidence-based practice: The role of case-based research. *Professional Psychology: Research and Practice, 35*(6), 589-597.
- Everly, G. S. (1989). *A clinical guide to the treatment of the human stress response*. New York: Plenum.
- Forgione, M.A., Leopald, J.A., & Loscalzo, J. (2000). Roles of endothelial dysfunction in coronary artery disease. *Current Opinions in Cardiology, 15*, 409-415.
- Freeman, A., Pretzer, J., Fleming, B., & Simon K.M. (1990). *Clinical applications of cognitive therapy*. New York: Plenum.
- Freud, S. (1905a/2001). Psychical (or mental) treatment. In *The standard edition of the complete psychological works of Sigmund Freud, Volume 7* (pp. 283-302). London: Virago.
- Freud, S. (1905b/2001). *The standard edition of the complete psychological works of Sigmund Freud, Volume 8: Jokes and their relation to the unconscious*. London: Virago.
- Freud, S. (1914/2001). On narcissism: An introduction. In *The standard edition of the complete psychological works of Sigmund Freud, Volume 14* (pp. 73-102). London: Virago.
- Frewen, S. H. (1991). *Health belief model interpretations of sociopsychological factors associated with compliance for weight loss and cardiac rehabilitation programmes*. Unpublished Master's thesis, University of Cape Town.
- Frewen, S. H, Schomer, H., & Dunne, T. (1994). Health belief model interpretation of compliance factors in a weight loss and cardiac rehabilitation programme. *South African Journal of Psychology, 24*(1), 39-43.
- Friedman, M. (1978). Type A behavior: Its possible relationship to pathogenic processes responsible for coronary heart disease (a preliminary enquiry). In T. M. Dembroski, S. M. Weiss, J. L. Shields, S. G. Haynes, & M. Feinleib (Eds.), *Coronary-Prone Behavior* (pp. 137-146). New York: Springer-Verlag.

- Friedman, M., Byers, S., Diamant, J., & Rosenman, R. H. (1975). Plasma catecholamine response of coronary-prone subjects (Type A) to a specific challenge. *Metabolism*, 24, 205-210.
- Friedman, M., Fleischmann, N., & Price, V. A. (1996). Diagnosis of Type A behavior pattern. In R. Allan & S. Scheidt (Eds.), *Heart and mind. The practice of cardiac psychology* (pp. 179-195). Washington, DC: American Psychological Association.
- Friedman, M., & Ghandour, G. (1993). Medical diagnosis of Type A behavior. *American Heart Journal*, 126, 607-618.
- Friedman, M. & Powell, L. H. (1984). The diagnosis and quantitative assessment of Type A behaviour. *Integrative Psychiatry*, 2, 123-129.
- Friedman, M., & Rosenman, R. H. (1959). Association of specific overt behavior pattern with blood and cardiovascular findings. *Journal of the American Medical Association*, 169, 1286-1296.
- Friedman, M., & Rosenman, R. H. (1974). *Type A behavior and your heart*. New York: Knopf.
- Friedman, M., Rosenman, R. H., & Carroll, V. (1958). Changes in serum cholesterol and blood clotting time in men subjected to cyclic variation of occupational stress. *Circulation*, 17, 852-861.
- Friedman, M., Thoresen, C. E., Gill, J., Ulmer, D., Powell, L. H., Price, V.A., et al. (1986). Alteration of Type A behavior and its effect on cardiac recurrences in postmyocardial infarction patients: Summary results of the Recurrent Coronary Prevention Project. *American Heart Journal*, 112, 653-665.
- Friedman, M., & Ulmer, D. (1985). *Treating Type 'A' behaviour and your heart*. London: Michael Joseph.
- Fukunishi, I., & Hattori, M. (1997). Mood states and Type A behavior in Japanese male patients with myocardial infarction. *Psychotherapy & Psychosomatics*, 66(6), 314-318.
- Fullard, J. P. P. (1982). Rehabilitation of patients after an acute myocardial infarction: The effects of a psychotherapeutic and physical exercise programme. Unpublished Doctoral thesis, University of Port Elizabeth.
- Garrow, J. S., & Webster, J. D. (1985). Quetelet's index ( $w/h^2$ ) as a measure of fatness. *International Journal of Obesity*, 9, 147-153.
- Gibbons, G. H., & Dzau, V. J. (1994). The emerging concept of vascular remodeling. *New England Journal of Medicine*, 330, 1431-1438.

- Gidron, Y., & Davidson, K. (1996). Development and preliminary testing of a brief intervention for modifying CHD-predictive hostility components. *Journal of Behavioral Medicine, 19*(3), 203-220.
- Glass, D. C. (1977). *Behavior patterns, stress and coronary disease*. Hillsdale, NJ: L. Erlbaum.
- Glass, D. C., Snyder, M. L., & Hollis, J. (1974). Time urgency and the Type A coronary-prone behavior pattern. *Journal of Applied Social Psychology, 4*, 125-140.
- Goldbeck, R. (1997). Denial in physical illness. *Journal of Psychosomatic Research, 43*(6), 575-593.
- Gould, K. L., Ornish, D., Scherwitz, L., Brown, S., Edens, R. P., Hess, M. J., et al. (1995). Changes in myocardial perfusion abnormalities by positron emission tomography after long-term, intense risk factor modification. *Journal of the American Medical Association, 274*, 894-901.
- Grace, S. L., Abbey, S. E., Zachary, M., Shnek, Z. M., Irvine, J., Franche, R-L., et al. (2002). Cardiac rehabilitation I: Review of psychosocial factors. *General Hospital Psychiatry, 24*, 121-126.
- Grech, E. D. (2003a). ABC of interventional cardiology. Pathophysiology and investigation of coronary artery disease. *British Medical Journal, 326*, 1027-1030.
- Grech, E. D. (2003b). ABC of interventional cardiology. Percutaneous coronary intervention. I: History and development. *British Medical Journal, 326*, 1080-1082.
- Grech, E. D., & Ramsdale, D. R. (2003a). Acute coronary syndrome: ST segment elevation myocardial infarction. *British Medical Journal, 326*, 1379-1381.
- Grech, E. D., & Ramsdale, D. R. (2003b). Acute coronary syndrome: Unstable angina and non-ST segment elevation myocardial infarction. *British Medical Journal, 326*, 1259-1260.
- Greenberg, J. R., & Mitchell, S. A. (1983). *Object relations in psychoanalytic theory*. Cambridge, MA: Harvard University Press.
- Greenberg, L. S., & Pascual-Leone, J. (1997). Emotion in the creation of personal meaning. In M. Power, & C. R. Brewin (Eds.), *The transformation of meaning in psychological therapies* (pp. 157-173). Chichester: John Wiley.
- Hackett, T. P., & Cassem, N. H. (1975). Psychological management of the myocardial infarction patient. *Journal of Human Stress, 1*(3), 25-38.

- Haney, T. L., Maynard, K. E., Houseworth, S. J., Scherwitz, L. W., Williams, R. B., & Barefoot, J. C. (1996). Interpersonal Hostility Assessment Technique: Description and validation against the criterion of coronary artery disease. *Journal of Personality Assessment*, 66, 386-401.
- Hart, K. E. (1997). A moratorium on research using the Jenkins Activity Survey. *Journal of Clinical Psychology*, 53(8), 905-907.
- Hartmann, H. (1958). *Ego psychology and the problem of adaptation*. New York: International Universities Press.
- Havik, O. E., & Maeland, J. G. (1986). Dimensions of verbal denial in myocardial infarction: Correlates to 3 denial scales. *Scandinavian Journal of Psychology*, 27, 326-339.
- Haynes, R. B. (1979). Determinants of compliance: The disease and the mechanics of treatment. In R. B. Haynes, D. W. Taylor, & D. L. Sackett (Eds.), *Compliance in health care* (pp. 49-61). Baltimore, MD: Johns Hopkins University Press.
- Heberden, W. (1772). Some account of a disorder of the breast. *Medical Transactions of the College of Physicians (London)*, 2, 59-67.
- Holmes, T. H., & Rahe, R. H. (1967). The Social Readjustment Rating Scale. *Journal of Psychosomatic Research*, 11, 213-218.
- Huysamen, G. K. (1994). The role of Type A behaviour and cigarette smoking in the prediction of coronary heart disease. *South African Journal of Psychology*, 24(2), 62-68.
- Ice, R. (1985). Long-term compliance. *Physical Therapy*, 65, 1832-1939.
- Imboden, J. B. (1972). Psychological determinants of recovery. *Advances in Psychosomatic Medicine*, 8, 142-155.
- Janne, P., Reynaert, C. & Cassiers, L. (1990). Denial and coronary disease: A reconsideration of the mechanism of denial and psychosomatic disease, particularly coronary disease. *Annales Medico-Psychologiques*, 148(2), 165-178.
- Jenkins, C. D. (1971). Psychological and social precursors of coronary disease. *The New England Journal of Medicine*, 284(6), 301-317.
- Jenkins, C. D. (1979). The coronary-prone personality. In W. D. Gentry & R. B. Williams, Jr. (Eds.), *Psychological aspects of myocardial infarction and coronary care* (pp.5-23). Saint Louis, MD: Mosby.

- Jenkins, C. D., Rosenman, R. H., & Friedman, M. (1967). Development of an objective psychological test for the determination of the coronary-prone behavior pattern in employed men. *Journal of Chronic Diseases, 20*, 371-379.
- Jenkins, C. D., Zyzanski, S. J., & Rosenman, R. H. (1979). *Jenkins Activity Survey, Form C, JAS Manual*. New York: The Psychological Corporation.
- Jiang, W., Krishnan, R. K., & O'Connor, C. M. (2002). Depression and heart disease. *CNS Drugs, 16*(2), 111-127.
- Joffe, W. G., & Sandler, J. (1987). On disorders of narcissism. In J. Sandler (Ed.), *From safety to superego: Selected papers of Joseph Sandler* (pp. 180-190). New York: Guilford.
- Johnston, D.W. (1993). The current status of the coronary prone behaviour pattern. *Journal of the Royal Society of Medicine, 86*, 406-409.
- Kaplan, B. H. (1992). Social health and the forgiving heart: The Type B story. *Journal of Behavioral Medicine, 15*(1), 3-14.
- Kaplan H. I., & Sadock, B. J. (1998). *Synopsis of psychiatry. Behavioral sciences/clinical psychiatry* (8<sup>th</sup> Ed.). New York: Lippincott, Williams & Wilkins.
- Kaufmann, M. W., Pasacreta, J., Cheney, R., & Arcuni, O. (1985-86). Psychosomatic aspects of myocardial infarction and implications for treatment. *International Journal of Psychiatry in Medicine, 15*(4), 371-380.
- Kavanagh, T. (1984). Distance running and cardiac rehabilitation: Physiological and psychological considerations. *Clinics in Sports Medicine, 3*, 513-526.
- Kim, J. S., Yoon, S. S., Lee, S.I., Yoo, H.J., Kim, C.Y., Choi-Kwon, S., et al. (1998). Type A behavior and stroke: High tenseness dimension may be a risk factor for cerebral infarction. *European Neurology, 39*(3), 168-173.
- Kirkcaldy, B. D., Cooper, C. L., & Furnham, A. F. (1999). The relationship between Type A internality-externality, emotional distress and perceived health. *Personality and Individual Differences, 26*(2), 223-235.
- Kits van Heijningen, H., & Treurniet, N. (1966). Psychodynamic factors in acute myocardial infarction. *International Journal of Psycho-Analysis, 47*(2-3), 370-374.
- Klein, M. (1952). Some theoretical conclusions regarding the emotional life of the infant. In M. M. R. Kahn (Ed.), *Envy and gratitude and other works* (pp. 61-93). London: Hogarth Press and the Institute of Psycho-Analysis.

- Kohut, H. (1966). Forms and transformations of narcissism. *Journal of the American Psychoanalytic Association, 14*, 243-272.
- Kohut, H. (1972). Thoughts on narcissism and narcissistic rage. *Psychoanalytic Study of the Child, 27*, 360-400.
- Kvetnansky, R. (Ed.) (1992). *Stress: Neuroendocrine and molecular approaches*. (Vols. 1-2). Philadelphia, PA: Taylor & Francis.
- Langosch, W., & Egger, J. (1985). Results of psychological studies on cardiovascular disease in the Federal Republic of Germany, Austria and Switzerland. *German Journal of Psychology, 9*(1), 63-92.
- Lasch, C. (1980). *The culture of narcissism*. London: Sphere.
- Lavanco, G. (1997). Burnout syndrome and Type A behavior in nurses and teachers in Sicily. *Psychological Reports, 81*(2), 523-528.
- Leaf, A., & Weber, P. C. (1988). Omega-3 fatty acids and cardiovascular disease. In E. Braunwald (Ed.), *Heart disease: A textbook of cardiovascular medicine* (3<sup>rd</sup> ed.) (pp. 49-60). Philadelphia, PA: Saunders.
- Levine, J., Warrenburg, S., Kerns, R., Schwartz, G., Delaney, R., Fontana, A., et al. (1987). The role of denial in recovery from coronary heart disease. *Psychosomatic Medicine, 49*, 109-117.
- Levy, S. M. (1981). The experience of undergoing a heart attack: The construction of new reality. *Journal of Phenomenological Psychology, 12*(2), 153-171.
- Lichstein, K. L. (1988). *Clinical relaxation strategies*. New York: John Wiley.
- MacLennan, N. (1996). *A cost efficiency application of the South African Recurrent Coronary Prevention Project*. Unpublished Doctoral thesis, Rand Afrikaans University, Pretoria.
- Mahler, M. S., Pine, F., & Bergman, A. (1975). *The psychological birth of the human infant: Symbiosis and individuation*. New York: Basic Books.
- Marais, D. W. M. (1989). *An experimental investigation into the efficacy of multi-component treatment programmes for test-anxious student nurses*. Unpublished Master's thesis, University of Cape Town.
- Markovitz, J. H., Matthews, K. A., Kiss, J., & Smitherman, T. C. (1996). Effects of hostility on platelet reactivity to psychological stress in coronary heart disease patients and in healthy controls. *Psychosomatic Medicine, 58*(2), 143-149.

- Martin, P. & Lee, H. S. (1992). Indicators of active and passive coping in myocardial infarction victims. *Journal of Gerontology: Psychological Sciences, 47*(4), 238-241.
- Maslach, C., & Jackson, S. E. (1981). The measurement of experienced burnout. *Journal of Occupational Behavior, 2*, 99-113.
- Matthews, K. A. (1982). Psychological perspectives on the Type A behavior pattern. *Psychological Bulletin, 91*(2), 293-323.
- Matthews, K. A. (1988). Coronary heart disease and Type A behavior: Update on an alternative to the Booth-Kewley and Friedman (1987) quantitative review. *Psychological Bulletin, 104*, 373-380.
- Mayo-Smith, W., Hayes, C. W., Biller, B. M. K., Klibanski, A., Rosenthal, H., & Rosenthal, D. I. (1989). Body fat distribution measured with CT: Correlations in healthy subjects, patients with anorexia nervosa, and patients with Cushing syndrome. *Radiology, 170*, 515-518.
- McDougall, J. (1986). *Theatres of the mind. Illusions and truth on the psychoanalytic stage*. London: Free Association Books.
- McDougall, J. (1989). *Theatres of the body: A psychoanalytical approach to psychosomatic illness*. London: Free Association Books.
- McNair, D. M., Lorr, M., & Droppleman, L. F. (1971). *EITS manual for the Profile of Mood States*. San Diego, CA: Educational and Industrial Testing Service.
- Medical Research Council of South Africa News* (December 2001), 32(6), 1.
- Menninger, K. A. & Menninger, W. C. (1936). Psychoanalytic observations in cardiac disorders. *American Heart Journal, 11*, 10.
- Merleau-Ponty, M. (1962). *Phenomenology of perception*. London: Routledge & Kegan Paul.
- Merleau-Ponty, M. (1963). *The structure of behavior*. Boston, MA: Beacon Press.
- Miliora, M. T. (1998). Trauma, dissociation, and somatization: A self-psychological perspective. *Journal of the American Academy of Psychoanalysis, 26*(2), 273-293.
- Miller, T. D., Balady, G. J., & Fletcher, G. F. (1997). Exercise and its role in the prevention and rehabilitation of cardiovascular disease. *Annals of Behavioral Medicine, 19*, 220-229.

- Millon, T. (1998). DSM Narcissistic Personality Disorder: Historical reflections and future directions. In E. F. Ronningstam (Ed.), *Disorders of narcissism. Diagnostic, clinical and empirical implications* (pp. 75-101). Washington, DC: American Psychiatric Press.
- Morrison, A. P. (1986). *Essential papers on narcissism*. New York: New York University Press.
- Morse, J. M., & Mitcham, C. (1998). The experience of agonizing pain and signals of disembodiment. *Journal of Psychosomatic Research*, 44(6), p 667-680.
- Musselman, D. L., Tomer, A., Manatunga, A.K., Knight, B. T., Porter, M. R., Kasey, S., et al. (1996). Exaggerated platelet reactivity in major depression. *American Journal of Psychiatry*, 153, 1313-1317.
- Nakano, K., Mochizuki, K., & Sato, M. (1996). Self-control and the Type-A behavior pattern. *Journal of Behavior Therapy and Experimental Psychiatry*, 27(2), 169-174.
- Nestel, P. J., Verhese, A., & Lovell, R. R. H. (1967). Catecholamine secretion and sympathetic nervous response to emotion in men with and without angina pectoris. *American Heart Journal*, 73, 227-234.
- Ohman, A., Nordby, H., & Svebak, S. (1989). Components of Type A behavior and task-induced cardiovascular activation. *Psychophysiology*, 26, 81-88.
- Oldridge, N. B. (1982). Compliance and exercise in primary and secondary prevention of coronary heart disease: A review. *Preventive Medicine*, 11, 56-70.
- Oldridge, N. B. (1984). Compliance and dropout in cardiac exercise rehabilitation. *Journal of Cardiac Rehabilitation*, 4, 166-177.
- Oldridge, N. B., Guyatt, G. H., Fischer, M. E., & Rimm, A. A. (1988). Cardiac rehabilitation after myocardial infarction: Combined experience of randomized clinical trials. *Journal of the American Medical Association*, 260, 945-950.
- Ornish, D. M., Brown, S. E., Scherwitz, L. W., Billings, J. H., Armstrong, W. T., Ports, T. A., et al. (1990). Can lifestyle changes reverse coronary heart disease? *Lancet*, 336, 129-133.
- Ornish, D. M., Scherwitz, L. W., Doody, R. S., Kersten, D., McLanahan, S. M., Brown, S. E., et al. (1983). Effects of stress management training and dietary changes in treating ischemic heart disease. *Journal of the American Medical Association*, 249, 54-59.

- Osler, W. (1897). *Lectures on angina pectoris and allied states*. New York: Appleton.
- O'Toole, L., & Grech, E. D. (2003). Chronic stable angina: Treatment options. *British Medical Journal*, *326*, 1185-1188.
- Panza, J. A., Quyyumuni, A. A., Callahan, T. S., & Epstein, S. E. (1993). Effect of antihypertensive treatment on endothelium-dependent vascular relaxation. *Journal of the American College of Cardiology*, *21*, 1145-1151.
- Patton, M. Q. (1990). *Qualitative evaluation and research methods*. New York: Sage Publications.
- Perkins, K.A. (1989). Interactions among coronary heart disease risk factors. *Journal of Behavioral Medicine*, *11*, 3-12.
- Pfizer Laboratories Handout. (Undated). *Module 2. Endothelial dysfunction*.
- Pleszewski, Z. (1978). Emotional functioning of patients before and after myocardial infarction. *Polish Psychological Bulletin*, *9*(3), 163-167.
- Powell, L. H. (1996). The hook: A metaphor for gaining control of emotional reactivity. In R. Allan & S. Scheidt (Eds.), *Heart and mind. The practice of cardiac psychology* (pp. 313-327). Washington, DC: American Psychological Association.
- Price, V. A. (1982). *Type A behavior pattern: A model for research and practice*. New York: Academic Press.
- Price, V. A., Friedman, M., Ghandour, G., & Fleischmann, N. (1995). Relation between insecurity and type A behavior. *American Heart Journal*, *129*(3), 488-491.
- Pulver, S. E. (1970). Narcissism: The term and the concept. *Journal of the American Psychoanalytic Association*, *18*(2), 319-341.
- Rafanelli, C., Roncuzzi, R., Finos, L., Tossani, E., Tomba, E., Mangelli, L., et al. (2003). Psychological assessment in cardiac rehabilitation. *Psychotherapy and Psychosomatics*, *72*(6), 343-349.
- Ragland, D. R., & Brand, R. (1988). Coronary heart disease mortality in the Western Collaborative Group Study. *American Journal of Epidemiology*, *127*, 462-465.
- Rahe, R. H., Bennett, L., Romo, M., Siltanen, P., & Arthur, R. J. (1973). Subjects' recent life changes and coronary heart disease in Finland. *American Journal of Psychiatry*, *130*(11), 1222-1226.

- Rahe, R. H., Ward, H. W., & Hayes, V. (1979). Brief group therapy in myocardial infarction: Three- to four-year follow-up of a controlled trial. *Psychosomatic Medicine*, 41(3), 229-242.
- Ramsay, J. M. C., McDermott, M. R., & Bray, C. (2001). Components of the anger-hostility complex and symptom reporting in patients with coronary artery disease: A multi-measure study. *Journal of Health Psychology*, 6(6), 713-729.
- Ravnskov, U. (2002). Is atherosclerosis caused by high cholesterol? *Quarterly Journal of Medicine*, 95(6), 397-403.
- Reich, A. (1960). Pathologic forms of self-esteem regulation. *The Psychoanalytic Study of the Child*, 15, 215-232.
- Riska, E. (2000). The rise and fall of the Type A man. *Social Science and Medicine*, 51(11), 1665-1674.
- Rosenman, R. H. (1978). The interview method of assessment of the coronary-prone behavior pattern. In T. M. Dembroski, S. M. Weiss, J. L. Shields, S. G. Haynes & M. Feinleib (Eds.), *Coronary-prone behavior* (pp. 55-69). New York: Springer-Verlag.
- Rosenman, R. H. (1990). Type A behavior pattern: A personal overview. *Journal of Social Behaviour and Personality*, 5, 1-24.
- Rosenman, R. H., Brand, R. J., Jenkins, C. D., Friedman, M., Straus, R., & Wurm, M. (1975). Coronary heart disease in the Western Collaborative Group Study: Final follow-up experience of 8.5 years. *Journal of the American Medical Association*, 233(8), 872-877.
- Rosenman, R. H. & Friedman, M. (1961). Association of specific behavior pattern in women with blood and cardiovascular findings. *Circulation*, 24, 1173-1184.
- Rosenman, R. H., & Friedman, M. (1971). The central nervous system and coronary heart disease. *Hospital Practice*, 6, 87-97.
- Rosenman, R. H., Friedman, M., Straus, R., Wurm, M., Jenkins, D., & Messinger, H. B. (1966). Coronary heart disease in the Western Collaborative Group Study. A follow-up experience of two years. *Journal of the American Medical Association*, 195(2), 86-92
- Rosenman, R. H., Friedman, M., Straus, R., Wurm, M., Kositchek, R., Hahn, W., et al. (1964). A predictive study of coronary heart disease. *Journal of the American Medical Association*, 189(1), 15-22.

- Roskies, E. (1980). Considerations in developing a treatment program for the coronary-prone (Type A) behavior pattern. In P. O. Davidson & S. M. Davidson (Eds.), *Behavioral medicine: Changing health lifestyles*. New York: Brunner/Mazel.
- Roskies, E. (1987). *Stress management for the healthy Type A: Theory and practice*. New York: Guilford.
- Roskies, E., Kearney, H., Spevack, M., Surkis, A., Cohen, C., & Gilman, S. (1979). Generalizability and durability of treatment effects in an intervention program for coronary-prone (Type A) managers. *Journal of Behavioral Medicine*, 2(2), 195-207.
- Ross, R. (1986). The pathogenesis of atherosclerosis – an update. *New England Journal of Medicine*, 314, 488.
- Ross, R. (1999). Atherosclerosis – an inflammatory disease. *New England Journal of Medicine*, 340, 115-126.
- Rotter, J. B. (1982). *The development and application of social learning theory*. New York: Praeger.
- Ruo, B., Rumsfeld, J. S., Hlatky, M. A., Liu, H., Browner, W. S., & Whooley, M. A. (2003). Depressive symptoms and health-related quality of life. The heart and soul study. *Journal of the American Medical Association*, 290(2), 215-221.
- Russek, H. I. (1965). Stress, tobacco and coronary disease in North American professional groups. *Journal of the American Medical Association*, 192, 189-194.
- Scheidt, S. (1996). A whirlwind tour of cardiology for the mental health professional. In R. Allan & S. Scheidt (Eds.), *Heart and mind. The practice of cardiac psychology* (pp. 15-62). Washington, DC: American Psychological Association.
- Scherwitz, L., Graham, L. E., Grandits, G., Buehler, J., & Billings, J. (1986). Self-involvement and coronary heart disease incidence in the multiple risk factor intervention trial. *Psychosomatic Medicine*, 48(3/4), 187-199.
- Scherwitz, L., Graham, L. E., & Ornish, D. (1985). Self-involvement and the risk factors of coronary heart disease. *Advances*, 2(2), pp 6-18.
- Schleifer, S. J., Macari-Hinson, M. M., Coyle, D. A., Slater, W. R., Kahn, M., Gorlin, R. et al. (1989). The nature and course of depression following myocardial infarction. *Archives of Internal Medicine*, 149, 1785-1789.

- Selye, H. (1956). *The stress of life*. New York: McGraw-Hill.
- Shanfield, S. B. (1990). Myocardial infarction and patients' wives. *Psychosomatics*, 31(2), 138-145.
- Sibilia, L., Picozzi, R., & Nardi, A-M. (1995). Identifying a psychological profile of Type A behaviour pattern. *Stress Medicine*, 11(4), 263-270.
- Sidoli, M. (1993). When the meaning gets lost in the body: Psychosomatic disturbances as a failure of the transcendent function. *Journal of Analytical Psychology*, 38, 175-190.
- Singer, B.A. (1987). The psychological impact of a myocardial infarction on the patient and the family. *Psychotherapy in Private Practice*, 5(3), 53-63.
- Smith, J. C. (1990). *Cognitive-behavioral relaxation training: A new system of strategies for treatment & assessment*. New York: Springer Publishing.
- Smith, T. W., Glazer, K., Ruiz, J. M., & Gallo, L. C. (2004). Hostility, anger, aggressiveness and coronary heart disease: An interpersonal perspective on personality, emotion and health. *Journal of Personality*, 72(6), 1217-1270.
- Sobel, D. E. (1969). Personalization on the coronary care unit. *American Journal of Nursing*, 69(7), 1439-1442.
- Soloff, P. H. (1977-78). Denial and rehabilitation of the post-infarction patient. *International Journal of Psychiatry in Medicine*, 8(2), 125-132.
- Spangenberg, J. J., & Schuda, S. (1997). Type A behaviour and hostility in final-year South African students. *South African Journal of Psychology*, 27(1), 30-36.
- Stefanadis, C., Vavuranakis, M., & Toutouzas, P. (2002). Identifying and treating vulnerable plaque. *Cardiology International*, Autumn, 93.
- Steinberg, D. (1983). Lipoproteins and atherosclerosis: A look back and a look ahead. *Atherosclerosis*, 3, 283.
- Stephanos, S. (1982). The contribution of psychoanalytic object theory to psychosomatic medicine. *Annual of Psychoanalysis*, 10, 187-204.
- Stolorow, R. D. (1986). Toward a functional definition of narcissism. In A. P. Morrison, (Ed.), *Essential papers on narcissism* (pp. 197-209). New York: New York University Press.

- Stone, M. H. (1998). Normal narcissism. An etiological and ethological perspective. In E. F. Ronningstam (Ed.), *Disorders of narcissism. Diagnostic, clinical and empirical implications* (pp. 7-28). Washington, DC: American Psychiatric Press.
- Strümpfer, D. J. W. (1993). An overview of Jenkins Activity Survey data in South Africa. *South African Journal of Psychology*, 23(3), 134-144.
- Stuart, S., & Cole, V. (1996). Treatment of depression following myocardial infarction with interpersonal psychotherapy. *Annals of Clinical Psychiatry*, 8(4), 203-206.
- Suls, J., & Marco, C. A. (1990). Relationship between JAS- and FTAS- Type A behavior and non-CHD illness. A prospective study controlling for negative affectivity. *Health Psychology*, 9(4), 479-492.
- Sutherland, V. J., & Cooper, C. L. (1990). *Understanding stress*. London: Chapman & Hall.
- Suwaidi, J., Higano, S. T., Holmes, D. R. Jr., Lennon, R., & Lerman, A. (2001). Obesity is independently associated with coronary endothelial dysfunction in patients with normal or mildly diseased coronary arteries. *Journal of the American College of Cardiology*, 37, 1523-1528.
- Thankachan, M. V., & Mishra, H. (1996). Type-A personality pattern among duodenal ulcer patients. *Indian Journal of Clinical Psychology*, 23(1), 16-20.
- Thoresen, C. E., & Powell, L. H. (1992). Type A behavior pattern: New perspectives on theory, assessment and intervention. *Journal of Consulting and Clinical Psychology*, 60(4), 595-604.
- Timmons, D. R. (1984). Patients at increased risk of reinfarction and death after myocardial infarction. In L. K. Hall., G. C. Meyer & H. K. Hellerstein (Eds.), *Cardiac rehabilitation: Exercise testing and prescription* (pp. 125-142). Champaign, IL: Life Enhancement Publications.
- Twisk, J. W. R., Snel, J., Kemper, H. C. G., & Van Mechelen, W. (1999). Changes in daily hassles and life events and the relationship with coronary heart disease risk factors: A 2-year longitudinal study in 27 - 29-year-old males and females. *Journal of Psychosomatic Research*, 46(3), 229-240.
- Ulmer, D. K. & Schwartzburd, L. (1996). Treatment of time pathologies. In R. Allan & S. Scheidt (Eds.), *Heart and mind. The practice of cardiac psychology* (pp. 329-362). Washington, DC: American Psychological Association.

- Van Diest, R. (1992). Vital exhaustion or depression: A study of daily mood in exhausted male subjects at risk for myocardial infarction. In M. W. De Vries & W. Marten (Eds.), *The experience of psychopathology: Investigating mental disorders in their natural settings* (pp. 233-239). Cambridge: Cambridge University Press.
- Van Wyk, R. (2000). The Type A behaviour pattern in professionals. *Dissertation Abstracts International: Section B: The Sciences & Engineering*, 60(11-B), 5760.
- Venter, A. J. E. (1993). *The effect of a behavioural medicine intervention on coronary risk factors in patients following a coronary artery bypass graft procedure*. Unpublished DLitt et Phil thesis, Rand Afrikaans University, Pretoria.
- Viinamaeki, H., Taehkae, V., & Koskela, K. (1992). Psychodynamics of change-resistant health behaviour. *Nordic Journal of Psychiatry*, 46(6), 387-392.
- Viljoen, H. (1993). *The effect of a coronary-prone lifestyle change programme on cardiac risk factors in post-myocardial infarction patients*. Unpublished DLitt et Phil thesis, Rand Afrikaans University.
- Viswanathan, R., & Vizner, T. (1984). The experience of myocardial infarction as a threat to one's personal adequacy. *General Hospital Psychiatry*, 6(1), 83-89.
- Wielgosz, A. T., & Nolan, R. P. (2000). Biobehavioral factors in the context of ischemic cardiovascular diseases. *Journal of Psychosomatic Research*, 48(4), 339-345.
- Wiklund, I. (1984). Emotional reaction, health preoccupation and sexual activity two months after a myocardial infarction. *Scandinavian Journal of Rehabilitation Medicine*, 16(2), 47-56.
- Winnicott, D.W. (1945). Primary emotional development. In *Through paediatrics to psycho-analysis* (1992), (pp. 145-156). Philadelphia, PA: Brunner/Mazel.
- Winnicott, D. W. (1952a). Anxiety associated with insecurity. In *Through paediatrics to psycho-analysis* (1992), (pp. 97-100). Philadelphia, PA: Brunner/Mazel.
- Winnicott, D. W. (1952b). Psychosis and child care. In *Through paediatrics to psycho-analysis* (1992), (pp. 219-228). Philadelphia, PA: Brunner/Mazel.
- Winnicott, D.W. (1956). Primary maternal preoccupation. In *Through paediatrics to psycho-analysis* (1992), (pp. 300-305). Philadelphia, PA: Brunner/Mazel.
- Winnicott, D.W. (1960). The theory of the parent-infant relationship. In *The maturational processes and the facilitating environment: Studies in the theory of emotional development*. (pp. 37-55). London: Hogarth Press and the Institute of Psycho-analysis.

- Winnicott, D. W. (1971). *Playing and reality*. Harmondsworth: Pelican.
- Winnicott, D. W. (1986). *Home is where we start from. Essays by a psychoanalyst*. London: Penguin.
- Winnicott, D. W. (1989). Fear of breakdown. In C. Winnicott, R. Shepherd & M. Davis (Eds.), *Psychoanalytic exploration* (pp. 87-950). Cambridge, MA: Harvard University Press.
- World Health Organization. (1993). *Needs and action priorities in cardiac rehabilitation and secondary prevention in patients with coronary heart disease*. Geneva: WHO Regional Office for Europe, Ref Type: Report.
- Wolf, S. (1967). The end of the rope: The role of the brain in cardiac death. *Canadian Medical Association Journal*, 97, 1022-1025.
- Yalom, I. D. (1994). *The theory and practice of group psychotherapy* (4<sup>th</sup> ed.). New York: Basic Books.
- Yarnold, P. R., & Bryant, F. B. (1988). A note on measurement issues in Type A research: Let's not throw out the baby with the bath water. *Journal of Personality Assessment*, 52(3), 410-419.
- Yarnold, P. R., & Grimm, L. G. (1982). Time urgency among coronary-prone individuals. *Journal of Abnormal Psychology*, 91, 175-177.
- Young, J. (1998). Schema-focused therapy for narcissistic patients. In E. F. Ronningstam (Ed.), *Disorders of narcissism: Diagnostic, clinical, and empirical implications* (pp. 239-268). Washington, DC: American Psychiatric Press.
- Zellermayer, J. (1955). Psychological aspects of diagnosis and treatment of cardiovascular diseases. *Harefuah*, 48, 197-190.
- Zhou, Z., Qian, Z., & Zhang, B. (1991). Effect of emotions on the onset of myocardial infarction. *International Journal of Mental Health*, 20(10), 64-70.
- Zyzanski, S. J. (1978). Coronary-prone behavior pattern and coronary heart disease: Epidemiological evidence. In T. M. Dembroski, S. M. Weiss, J. L. Shields, S. G. Haynes & M. Feinleib (Eds.), *Coronary-Prone Behavior* (pp. 25-40). New York: Springer-Verlag.

LIST OF APPENDIXES

A	The Canadian Cardiovascular Society classification of angina	315
B	The Jenkins Activity Survey	316
C	Outline of 12-week programme	322
D	How does your heart work?	325
E	Relaxation tape insert	334
F	Wording for progressive relaxation training	335
G	Wording for the seven-muscle group relaxation exercise	338
H	Wording for lecture, Session 2	339
I	Self-Monitor worksheet	344
J	Bombs and Fuses worksheet	347
K	Stress lecture	349
L	Adapted version of Everly's systems approach to stress	350
M	The Holmes and Rahe stressful life events scale	351
N	Wording for lecture, Session 3	352
O	Time Urgency worksheet	353
P	Wording for lecture, Session 4	356
Q	Bait and Hook worksheet	358
R	Overhead for lecture, Session 5	360
S	Overhead for lecture, Session 6	361
T	Overhead for lecture on "Behaviour", "Conscious and Unconscious", Session 7	362
U	Overhead for lecture on "Self and Other", Session 7	363
V	Overhead for lecture on connections between "Self and Other", Session 7	364
W	Greek myth of Narcissus	365
X	List of defence mechanisms, Session 7	366
Y	Worksheet, Session 7	368
Z	Worksheet Triangle of Relating, Session 8	369
AA	Lecture, mind-body interface, Session 10	370
BB	Wording, relaxation exercise, lived-body after myocardial infarction, Session 11	373
CC	The Frewen Cardiac Rehabilitation Assessment Interview	378
DD	Profile of Mood States	382
EE	Profile of Mood States Profile Sheet	383
FF	Profile of Mood States Ice-Berg Profile	385
GG	Spouse Rating Scale	386
HH	Categories of questions for the Spouse Rating Scale	391

		314
II	List of Spouse Rating Scale questions reversed for scoring purposes	398
JJ	Example of a weekly feedback sheet	399
KK	Session One summary table of feedback scores	405
LL	Session Two summary table of feedback scores	406
MM	Session Three summary table of feedback scores	407
NN	Session Four summary table of feedback scores	408
OO	Session Five summary table of feedback scores	409
PP	Session Six summary table of feedback scores	410
QQ	Session Seven summary table of feedback scores	411
RR	Session Eight summary table of feedback scores	412
SS	Session Nine summary table of feedback scores	413
TT	Session Ten summary table of feedback scores	414
UU	Session Eleven summary table of feedback scores	415
VV	Session Twelve summary table of feedback scores	416
WW	Research Interview Guide Sheets	417
XX	Six-week follow-up interview guide sheet	418
YY	Eighteen-month follow-up questionnaires	419
ZZ	Revised programme outline	422
AAA	Heart magazine article	426

## APPENDIX A

Canadian Cardiovascular Society classification of angina

## Class I

- No angina during ordinary physical activity such as walking or climbing stairs
- Angina during strenuous, rapid, or prolonged exertion

## Class II

- Slight limitation of ordinary activity
- Angina on walking or climbing stairs rapidly; walking uphill; walking or climbing stairs shortly after meals, in cold or wind, when under emotional stress or only in the first few hours after waking
- Angina on walking more than two blocks (100 – 200m) on the level or climbing more than one flight of stairs at normal pace and in normal conditions

## Class III

- Marked limitation of ordinary physical activity
- Angina on walking one or two blocks on the level or climbing one flight of stairs at normal pace and in normal conditions

## Class IV

- Inability to carry out any physical activity without discomfort
- Includes angina at rest

## APPENDIX B

JENKINS ACTIVITY SURVEY

The *Jenkins Activity Survey* asks questions about aspects of behaviour that have been found helpful in medical diagnosis. Each person is different, so there are no “right” or “wrong” answers.

For each question, choose the answer that is true for you, and circle your response. Mark only one answer for each question.

Code Name:

---

Date:

---

Age:

---

Male/Female:

---

## SECTION A

**DIRECTIONS:** For each question, choose the answer that is true for you. Mark only one answer for each question.

1. Do you ever have trouble finding time to get your hair cut or styled?
  - A. Never
  - B. Occasionally
  - C. Almost always
2. How often does your job "stir you into action"?
  - A. Less often than most people's jobs
  - B. About average
  - C. More than most people's jobs
3. Is your everyday life filled mostly by
  - A. problems needing a solution?
  - B. challenges needing to be met?
  - C. a rather predictable routine of events?
  - D. not enough things to keep me interested or busy?
4. Some people live a calm, predictable life. Others often find themselves facing unexpected changes, frequent interruptions, inconveniences, or "things going wrong". How often are you faced with these minor (or major) annoyances or frustrations?
  - A. Several times a day
  - B. About once a day
  - C. A few times a week
  - D. Once a week
  - E. Once a month or less
5. When you are under pressure or stress, what do you usually do?
  - A. Do something about it immediately
  - B. Plan carefully before taking any action
6. Ordinarily, how rapidly do you eat?
  - A. I'm usually the first one finished.
  - B. I eat a little faster than average.
  - C. I eat at about the same speed as most people.
  - D. I eat more slowly than most people.
7. Has your spouse or a friend ever told you that you eat too fast?
  - A. Yes, often
  - B. Yes, once or twice
  - C. No, never
8. How often do you find yourself doing more than one thing at a time, such as working while eating, reading while dressing, or figuring out problems while driving?
  - A. I do two things at once whenever practical.
  - B. I do this only when I'm short of time.
  - C. I rarely or never do more than one thing at a time.
9. When you listen to someone talking, and this person takes too long to come to the point, how often do you feel like hurrying the person along?
  - A. Frequently
  - B. Occasionally
  - C. Almost never
10. How often do you actually "put words in the person's mouth" in order to speed things up?
  - A. Frequently
  - B. Occasionally
  - C. Almost never
11. If you tell your spouse or a friend that you will meet somewhere at a definite time, how often do you arrive late?
  - A. Once in a while
  - B. Rarely
  - C. I am never late.
12. How often do you find yourself hurrying to get places even when there is plenty of time?
  - A. Frequently
  - B. Occasionally
  - C. Almost never

## AFDELING A

**AANWYSINGS:** Kies by elke vraag die antwoord wat ten opsigte van u waar is deur 'n sirkel om die regte alternatief te trek. Merk slegs een antwoord per vraag.

1. Het u ooit probleme om tyd te vind om u hare te laat sny of te styl.
  - A. Nooit
  - B. Nou en dan
  - C. Byna altyd
2. Hoe dikwels " motiveer " u beroep u tot aksie.
  - A. Minder dikwels dan die beroepe van die meeste ander mense
  - B. Min of meer gemiddeld
  - C. Meer as die meeste beroepe
3. Is u alledaagse lewe meestal gevul met
  - A. probleme wat 'n oplossing nodig het
  - B. uitdagings wat tegemoet getree moet word
  - C. 'n voorspelbare roetine van gebeure
  - D. nie genoeg dinge om u gainteresseerd en besig te hou nie.
4. Sommige mense lewe 'n kalm, voorspelbare lewe. Ander vind hulself dikwels voor onverwagte veranderings, veelvuldige onderbrekings, ongemak of "dinge wat verkeerd loop". Hoe dikwels word u gekonfronteer met hierdie kleiner (of groter) ergernisse en frustrasies?
  - A. 'n paar keer per dag
  - B. omtrent een keer per dag
  - C. 'n paar keer per week
  - D. Een maal per week
  - E. Een keer per maand of minder.
5. Wanneer u onder spanningsdruk is, wat doen u gewoonlik?
  - A. Doen iets onmiddellik
  - B. Beplan versigtig voordat u tot aksie oorgaan
6. Hoe vinnig eet u normaalweg?
  - A. Ek is gewoonlik die eerste om klaar te maak
  - B. Ek eet 'n bietjie vinniger dan die gemiddelde persoon
  - C. Ek eet teen dieselfde spoed as die meeste mense
  - D. Ek eet stadiger as die meeste mense
7. Het u eggenoot of vriend al ooit vir u gesê dat u te vinnig eet.
  - A. Ja, dikwels
  - B. Ja, een of twee keer
  - C. Nee nooit
8. Hoe dikwels vind u dat u meer as een ding op 'n keer doen. Soos bv. werk terwyl u eet, lees terwyl u aantrek, of probleme oplos terwyl u bestuur.
  - A. Ek doen twee dinge tegelyk waar dit moontlik is.
  - B. Ek doen dit slegs wanneer ek 'n tekort het aan tyd
  - C. Ek doen selds, of ooit meer as een ding of 'n keer.
9. Wanneer u na iemand luister en die persoon neem te lank om by die punt te kom, hoe dikwels voel u dat u die persoon kan aanhelp.
  - A. Dikwels
  - B. Nou en dan
  - C. Byna nooit
10. Hoe dikwels plaas u self "woorde in die persoon se mond" tensinde dinge vinniger te laat verloop?
  - A. Dikwels
  - B. Nou en dan
  - C. Byna nooit
11. Indien u aan u eggenoot of vriend sê dat jul êrens op 'n gegewe tyd sal ontmoet, hoe dikwels is u laat?
  - A. Nou en dan
  - B. Selds
  - C. Ek is nooit laat nie.
12. Hoe dikwels vind u dat u haastig is om êrens te kom wanneer daar nog baie tyd is?
  - A. Dikwels
  - B. Nou en dan
  - C. Byna nooit

13. Suppose you are to meet someone at a public place (street corner, building lobby, restaurant) and the other person is already 10 minutes late. What will you do?  
 A. Sit and wait  
 B. Walk about while waiting  
 C. Usually carry some reading matter or writing paper so I can get something done while waiting
14. When you have to "wait in line" at a restaurant, a store, or the post office, what do you do?  
 A. Accept it calmly  
 B. Feel impatient but not show it  
 C. Feel so impatient that someone watching can tell I am restless  
 D. Refuse to wait in line, and find ways to avoid such delays
15. When you play games with young children about 10 years old (or when you did so in past years), how often do you purposely let them win?  
 A. Most of the time  
 B. Half the time  
 C. Only occasionally  
 D. Never
16. When you were younger, did most people consider you to be  
 A. definitely hard-driving and competitive?  
 B. probably hard-driving and competitive?  
 C. probably more relaxed and easygoing?  
 D. definitely more relaxed and easygoing?
17. Nowadays, do you consider yourself to be  
 A. definitely hard-driving and competitive?  
 B. probably hard-driving and competitive?  
 C. probably more relaxed and easygoing?  
 D. definitely more relaxed and easygoing?
18. Would your spouse (or closest friend) rate you as  
 A. definitely hard-driving and competitive?  
 B. probably hard-driving and competitive?  
 C. probably relaxed and easygoing?  
 D. definitely relaxed and easygoing?
19. Would your spouse (or closest friend) rate your general level of activity as  
 A. too slow-should be more active?  
 B. about average - busy much of the time?  
 C. too active - should slow down?
20. Would people you know well agree that you take your work too seriously?  
 A. Definitely yes  
 B. Probably yes  
 C. Probably no  
 D. Definitely no
21. Would people you know well agree that you have less energy than most people?  
 A. Definitely yes  
 B. Probably yes  
 C. Probably no  
 D. Definitely no
22. Would people you know well agree that you tend to get irritated easily?  
 A. Definitely yes  
 B. Probably yes  
 C. Probably no  
 D. Definitely no
23. Would people who know you well agree that you tend to do most things in a hurry?  
 A. Definitely yes  
 B. Probably yes  
 C. Probably no  
 D. Definitely no
24. Would people who know you well agree that you enjoy a "contest" (competition) and try hard to win?  
 A. Definitely yes  
 B. Probably yes  
 C. Probably no  
 D. Definitely no
13. Veronderstel u moet iemand op 'n openbare plek ontmoet (straathoek, voorportaal van 'n gebou, restaurant) en die ander persoon is reeds 10 minute laat. Wat sal u doen?  
 A. Sit en wag  
 B. Rond loop terwyl jy wag  
 C. Dra gewoonlik leesmateriaal of skryfpapier sodat ek iets gedoen kry terwyl ek wag.
14. Wanneer u in 'n tou moet wag by 'n restaurant, 'n winkel of poskantoor, wat doen u dan.  
 A. Anvaar dit kalm  
 B. Voel ongeduldig maar wys dit nie  
 C. Voel so ongeduldig dat iemand wat my dophou sou kon aflei dat ek rusteloos is  
 D. Verseg om in die tou te wag en vind 'n manier om sulke oponthoude te ontwyk.
15. Wanneer u 'n spel speel (of in die verlede gespeel het) met jong kinders van ongeveer 10 jaar oud, hoe dikwels het u hul doelbevis laat wen?  
 A. Meeste van die tyd  
 B. Helfte van die tyd  
 C. Slegs nou en dan
16. Toe u nog jonger was, het die meeste mense u gesien as  
 A. definitief hardwerkend en kompiterend  
 B. waarskynlik hardwerkend en kompiterend  
 C. waarskynlik meer ontspanne en gemaklik  
 D. definitief meer ontspanne en gemaklik
17. Deesdae, beskou u uself as  
 A. definitief hardwerkend en kompiterend  
 B. waarskynlik hardwerkend en kompiterend  
 C. waarskynlik meer ontspanne en gemaklik  
 D. definitief meer ontspanne en gemaklik
18. Sal u eggenoot (of naaste vriend) u beoordeel as  
 A. definitief hardwerkend en kompiterend  
 B. waarskynlik hardwerkend en kompiterend  
 C. waarskynlik ontspanne en gemaklik  
 D. definitief ontspanne en gemaklik
19. Sal u eggenoot (of naaste vriend) u algemene vlak van aktiwiteit beoordeel as  
 A. te stadig - behoort meer aktief te wees  
 B. min of meer gemiddeld - besig die meeste van die tyd te aktief - moet stadiger
20. Sal mense wat u goed ken saamstem dat u u werk te ernstig opneem?  
 A. Definitief ja  
 B. Waarskynlik ja  
 C. Waarskynlik nee  
 D. Definitief nee
21. Sal mense wat u goed ken saamstem dat u minder energie het as die meeste mense?  
 A. Definitief ja  
 B. Waarskynlik ja  
 C. Waarskynlik nee  
 D. Definitief nee
22. Sal mense wat jou goed ken saamstem dat u geneig is om gou geïrriteerd te raak?  
 A. Definitief ja  
 B. Waarskynlik ja  
 C. Waarskynlik nee  
 D. Definitief nee
23. Sal mense wat jou goed ken saamstem dat u geneig is om die meeste dinge in haas te doen?  
 A. Definitief ja  
 B. Waarskynlik ja  
 C. Waarskynlik nee  
 D. Definitief nee
24. Sal mense wat u goed ken saamstem dat u 'n wedstryd (kompetisie) geniet en hard probeer om dit te wen?  
 A. Definitief ja  
 B. Waarskynlik ja  
 C. Waarskynlik nee  
 D. Definitief nee

15. How was your temper when you were younger?  
 A. Fiery and hard to control  
 B. Strong but controllable  
 C. No problem  
 D. I almost never got angry.
25. Hoe was u humeur toe u jonger was?  
 A. Vurig en moeilik om te beheer  
 B. Vinnig maar beheerbaar  
 C. Geen probleme  
 D. Ek het byna nooit kwaad geword nie.
26. How is your temper nowadays?  
 A. Fiery and hard to control  
 B. Strong but controllable  
 C. No problem  
 D. I almost never get angry.
26. Hoe is u humeur deesdae?  
 A. Vurig en moeilik om te behoor  
 B. Vinnig maar beheerbaar  
 C. Geen probleme  
 D. Ek word byna nooit kwaad nie.
27. When you are in the midst of doing a job and someone (not your boss) interrupts you, how do you usually feel inside?  
 A. I feel O.K. because I work better after an occasional break.  
 B. I feel only mildly annoyed.  
 C. I really feel irritated because most such interruptions are unnecessary.
27. Wanneer u besig is om 'n taak te verrig en iemand (nia u baas) onderbreek u, hoe voel u gewoonlik?  
 A. Ek voel goed want ek werk beter na 'n breuk  
 B. Ek voel slegs 'n bietjie omgekrap  
 C. Ek voel geirriteerd want die meeste van hierdie onderbrekings is onnodig.
28. How often are there deadlines on your job?  
 A. Daily or more often  
 B. Weekly  
 C. Monthly or less often  
 D. Never
28. Hoe dikwels is daar tydsgrense in u werk?  
 A. Daaglik of meer dikwels  
 B. Weeklik  
 C. Maandeliks of minder  
 D. Nooit
29. These deadlines usually carry  
 A. minor pressure because of their routine nature.  
 B. considerable pressure, since delay would upset my entire work group.  
 C. Deadlines never occur on my job.
29. Hierdie tydsgrense beteken gewoonlik  
 A. geringe druk as gevolg van hul geroutineerde aard.  
 B. aansienlike druk, omdat 'n ophoud my hele werkgroep sal ontvrig.  
 C. Tydsgrense kom nooit in my werk voor nie.
30. Do you ever set deadlines or quotas for yourself at work or at home?  
 A. No  
 B. Yes, but only occasionally.  
 C. Yes, once a week or more
30. Stel u ooit by die werk of by die huis tydskerpe of hoeveelhedsmerke vir uself?  
 A. Nee  
 B. Ja, maar slegs nou en dan  
 C. Ja, een keer per week of meer.
31. When you have to work against a deadline, what is the quality of your work?  
 A. Better  
 B. Worse  
 C. The same (Pressure makes no difference)
31. Wanneer u teen 'n tydskerp werk, wat is die kwaliteit van u werk?  
 A. Beter  
 B. Slechter  
 C. Dieselfde (spanningsdruk maak geen verskil)
32. At work, do you ever keep two jobs moving forward at the same time by shifting back and forth rapidly from one to the other?  
 A. No, never  
 B. Yes, but only in emergencies  
 C. Yes, regularly
32. Gebeur dit ooit by die werk dat u twee take gelyk in proses hou wat beteken dat u heen en weer tussen die twee wissel?  
 A. Nee nooit  
 B. Ja maar slegs in geval van nood  
 B. Ja gereeld.
33. Are you content to remain at your present job level for the next five years?  
 A. Yes  
 B. No, I want to advance  
 C. Definitely no; I strive to advance and would be dissatisfied if not promoted in that length of time.
33. Is u bereid om in u huidige werksposisie te bly vir die volgende vyf jaar?  
 A. Ja  
 B. Nee, ek wil vorder  
 C. Definitief nee, ek streef daarna om vooruit te gaan en sal ontevrede wees indien ek met tyd nie bevorderd word nie.
34. If you had your choice, which would you rather get?  
 A. A small increase in pay without a promotion to a higher level job  
 B. A promotion to a higher level job without an increase in pay
34. As u 'n keuse het, wat sal u eerder kies?  
 A. 'n Klein verhoging in salaris sonder 'n promosie na 'n hoër vlak.  
 B. 'n Bevordering na 'n hoër vlak sonder 'n verhoging van salaris.
35. In the past three years, have you ever taken less than your allotted number of vacation days?  
 A. Yes  
 B. No  
 C. My type of job does not provide regular vacations.
35. In die afgelope drie jaar, het u ooit minder verlof geneem as die aantal dae wat u toekom.  
 A. Ja  
 B. Nee  
 C. My tipe werk laat my nie toe om gereeld met vakansie te gaan nie.
36. In the last three years, how has your personal yearly income changed?  
 A. It has remained the same or gone down.  
 B. It has gone up slightly (as the result of cost-of-living increases or automatic raises based on years of service).  
 C. It has gone up considerably.
36. Hoe het u persoonlike jaarlikse inkomste gedurende die laaste drie jaar verander?  
 A. Dit het dieselfde gebly of minder geword  
 B. Dit het 'n bietjie gestyg (as gevolg van die stygende lewenskoste en outomatiese verhogings gebaseer op jare diens)  
 C. Dit het aansienlik verhoog.
37. How often do you bring your work home with you at night, or study materials related to your job?  
 A. Rarely or never  
 B. Once a week or less  
 C. More than once a week
37. Hoe dikwels bring u werk of aanverwante studie-materiaal huis toe saans?  
 A. Byna nooit  
 B. Nou en dan  
 C. Meer dan een keer per week.

38. How often do you go to your place of work when you are not expected to be there (such as nights or week-ends)?
- It is not possible on my job
  - Rarely or never
  - Occasionally (less than once a week)
  - Once a week or more

39. When you find yourself getting tired on the job, what do you usually do?
- Slow down for a while until my strength comes back
  - Keep pushing myself at the same pace in spite of the tiredness

40. When you are in a group, how often do the other people look to you for leadership?
- Rarely
  - About as often as they look to others
  - More often than they look to others

41. How often do you make yourself written lists to help you remember what needs to be done?
- Never
  - Occasionally
  - Frequently

For questions 42-46, compare yourself with the average worker in your present occupation, and mark the most accurate description.

42. In amount of effort put forth, I give
- much more effort
  - a little more effort
  - a little less effort
  - much less effort

43. In sense of responsibility, I am
- much more responsible
  - a little more responsible
  - a little less responsible
  - much less responsible

44. I find it necessary to hurry
- much more of the time
  - a little more of the time
  - a little less of the time
  - much less of the time

45. In being precise (careful about detail), I am
- much more precise
  - a little more precise
  - a little less precise
  - much less precise

46. I approach life in general
- much more seriously
  - a little more seriously
  - a little less seriously
  - much less seriously

For questions 47-49, compare your present work with your work setting of five years ago. If you have not been working for five years, compare your present job with your first job.

47. I worked more hours per week
- at my present job
  - five years ago
  - Cannot decide

48. I carried more responsibility
- at my present job.
  - five years ago
  - Cannot decide

49. I was considered to be at a higher level (in prestige or social position)
- at my present job
  - five years ago
  - Cannot decide

38. Hoe dikwels gaan u werk toe wanneer dit nie van u verwag word om daar te wees nie (soos snags of naweke)?
- Dit is nie in my werk moontlik nie
  - Byna nooit
  - Hou en dan (minder as een keer per week)
  - Een maal per week of meer.

39. Wanneer u vind dat u moeg word by die werk, wat doen u gewoonlik?
- Werk stadiger vir 'n tydjie totdat my krag weer terugkeer
  - Ek handhaaf dieselfde pas ten spyte van die moegheid.

40. Wanneer u in 'n groep is, hoe dikwels sien die ander mense op na u leiding?
- Selds
  - So dikwels as wat hul na ander opsien
  - Meer dikwels as wat hul na ander opsien.

41. Hoe dikwels maak u 'n geskrewe lys om u te help om te onthou wat u moet doen?
- Nooit
  - Hou en dan
  - Dikwels

Vir die beantwoording van vrae 42-46 moet u uself met die gemiddelde werker in u huidige beroep vergelyk en dan die mees akkurate beskrywing merk.

42. Ten opsigte van my inset, gee ek
- baie meer as die gemiddelde werker
  - 'n bietjie meer as die gemiddelde werker
  - 'n bietjie minder as die gemiddelde werker
  - baie minder as die gemiddelde werker

43. Ten opsigte van verantwoordelikeidbesese, is ek
- baie meer verantwoordelik
  - 'n bietjie meer verantwoordelik
  - 'n bietjie minder verantwoordelik
  - baie minder verantwoordelik

44. Ek vind dit nodig om haastig te wees
- baie meer dikwels
  - 'n bietjie meer dikwels
  - 'n bietjie minder dikwels
  - baie minder dikwels

45. Ten opsigte van presiasheid (aggsaamheid vir detail) is ek
- Baie meer presies
  - 'n bietjie meer presias
  - 'n bietjie minder presies
  - Baie minder presies

46. Ek benader die lewe in die algemeen
- baie meer ernstig
  - 'n bietjie meer ernstig
  - 'n bietjie minder ernstig
  - Baie minder ernstig

Vir die beantwoording van vrae 47-49 vergelyk u huidige werk met u werksituasie vyf jaar gelede. As u nie vir minstens vyf jaar gewerk het nie, vergelyk u huidige werk met u eerste werk.

47. Ek werk meer ure per week
- in my huidige werk
  - vyf jaar gelede
  - Kan nie besluit nie

48. Ek het meer verantwoordelikeid
- in my huidige betrekking
  - vyf jaar gelede
  - Kan nie besluit nie

49. Ek was op 'n hoër vlak (prestige en sosiale posisie)
- in my huidige werk
  - vyf jaar gelede
  - Kan nie besluit nie

50. How many different job titles have you held in the last 10 years? (Be sure to count shifts in kinds of work, shifts to new employers, and shifts up and down within a firm).
- A. 0-1
  - B. 2
  - C. 3
  - D. 4
  - E. 5 or more
51. How much schooling did you receive?
- A. 0-4 years
  - B. 5-8 years
  - C. Some high school
  - D. Completed high school
  - E. Trade school or business college
  - F. Some college (including technical college)
  - G. Graduated from a university
  - H. Post-graduate work at a college or university
52. When you were in school, were you an officer of any group, such as a student council, glee club, 4-H club, sorority or fraternity, or captain of an athletic team?
- A. No
  - B. Yes, I held one such position
  - C. Yes, I held two or more such positions.
50. Hoeveel verskillende posisies het u die afgelope 10 jaar beklee? (Maak seker dat u die veranderings in tipes werk, veranderings na nuwe werknemers, en skui op en af in die hiërargie van die firma, tel)
- A. 0-1
  - B. 2
  - C. 3
  - D. 4
  - E. 5 of meer
51. Hoeveel jaar het u skool bygewoon?
- A. 0-4 jaar
  - B. 5-8 jaar
  - C. Gedeeltelik Hoërskool
  - D. Matriek geslaag
  - E. Handels of besighheids kollege (na-skoolse opleiding)
  - F. Gedeeltelik aan kollege, universiteit
  - G. Graad of diploma aan universiteit of Kollege
  - H. Na-graadse werk aan Kollege of universiteit
52. Was u gedurende u skoolloopbaan 'n bestuurslid (komiteelid) van enige groep soos die leerlingraad, koor, debatsvereniging of kaptein van 'n atletiek of rugby span?
- A. Nee
  - B. Ja, ek het een sodanige posisie beklee
  - C. Ja, ek het twee of meer sulke posisies beklee.

## APPENDIX C

OUTLINE OF 12-WEEK GROUP THERAPY PROGRAMME FOR  
POST-MYOCARDIAL INFARCTION REHABILITATION

Initial assessment, individual interviews:	Last week of June and first week of July
Group sessions:	Wednesdays, 6.30 – 8pm. July 10 – October 3, Conference Room, Vincent Pallotti Hospital, Pinelands,
Last follow-up individual interview:	Week of 7 October
Final 6-week follow-up interview:	Week of 18 November
Braai, get-together with Heart Foundation:	27 November 2002

- Session 1: Group leader introduces the aims of the 12-week group sessions. Individuals briefly introduce themselves to the group. Brief overview of how the heart works and how heart attacks happen. Individuals share experience of the CHD (heart attack, by-pass, cholesterol level); discuss what medication they are on. Group leader introduces the progressive relaxation technique. End session with a 20-minute relaxation exercise using the 15-muscle group method. Participants are given a relaxation tape which they are encouraged to use on a daily basis.
- Session 2: In the form of a lecture, the group leader introduces the concept of the Type A behaviour pattern (TABP), particularly the subcomponents of anger, hostility, impatience, time urgency, and competitiveness. Introduce the concepts of the Self-Monitor and Bombs and Fuses to develop greater awareness of the TABP. Group discussion on the concepts introduced. Participants are given worksheets to complete for the week. These will be discussed at the next group meeting. End session with a 15-minute relaxation exercise using the 15-muscle group method.
- Session 3: To introduce the concept of stress and the stress response. To develop a further awareness of time urgency as a subcomponent of the TABP. Group leader presents the concepts and then initiates discussion around time urgency. The worksheets from the previous week are also discussed and the Bombs and Fuses and Self-Monitor concepts reinforced. Participants are given worksheets to complete for the week in respect of identifying specific time-urgent behaviours and practising Type B

behaviours. These will be discussed at the next group meeting. End session with a 15-minute relaxation exercise, this time using the seven-muscle group method.

- Session 4: Develop further awareness of the anger and hostility component of the TABP by introducing the Bait and Hook metaphor. Participants are encouraged to discuss situations that act as baits as well as their belief systems which are the hooks. Information gleaned from the Self-Monitor and Bombs and Fuses exercises is reinforced. End session with a 15-minute relaxation exercise using the seven-muscle group method. Introduce a brief visualisation exercise into the relaxation.
- Session 5: Group leader briefly outlines the aim of the next few sessions with regard to identifying and expressing feelings, as well as listening with empathy and compassion. Conduct a 10-minute meditation exercise. Participants are asked to become aware of a feeling and if necessary to locate it as a physical sensation. The inner state experience is then translated into a language of emotion by asking participants to complete a sentence beginning with "I feel..." and to share this with the group. Participants are asked to distinguish between a feeling and a thought and to continue being aware of this process throughout the next week. Participants are encouraged to discuss insights, experiences, and so on, regarding their TABP using either "I feel..." or one word to describe how they feel; or to share a significant feeling experience concerning their insights. Participants to practise beginning communications with "I feel..." during the week. End session with a 15-minute relaxation exercise.
- Session 6: Conduct a 10-minute meditation exercise. The concept of empathic listening is introduced. Participants are advised that everything that takes place has meaning. Introduce the rules of not giving advice, not reassuring, not giving testimonials about one's own successes or failures, not judging an experience or a feeling and listening with the other person's ears, that is, to what she or he wants you to hear. Group is divided into pairs in order to work on this exercise and to discuss the insights from the Self-Monitor, the Bombs and Fuses and Bait and Hook worksheets and exercises. Participants are asked to be aware of listening to others during the week and to continue communicating with "I feel..." End session with a 15-minute relaxation exercise.
- Session 7: Group leader introduces the concept of narcissism. As a lead up to this, the concept of self-esteem and the defences that we use to protect ourselves are outlined. The group leader then relates the story of Narcissus. Conduct a 10-minute meditation exercise in which participants are asked to visualise their inner core and the various ways in which they have protected it. Participants to think about the Bomb and Fuses and Bait and Hook exercises to try to understand their reactions to situations.

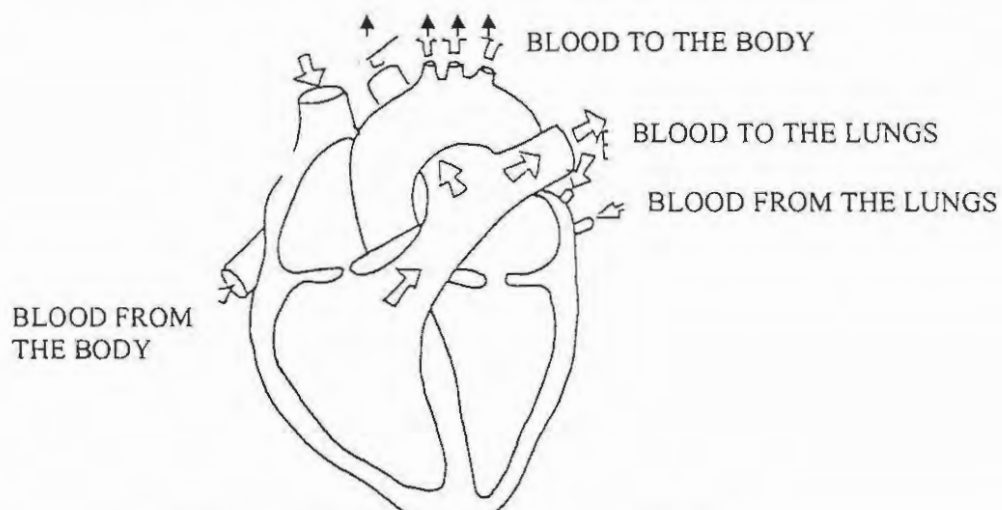
Participants are asked to share with the group. End session with a 15-minute relaxation exercise.

- Session 8: Group leader introduces the concept of the triangle of relating. Conduct a 10-minute meditation exercise in which participants are asked to visualise a recent situation in which they felt they had reacted, rather than responded. Group is divided into pairs to discuss the situation. Group then comes together to share insights. Participants are asked to use their Self-Monitor to note their reactions versus responses in the coming week and to attempt to identify the root of the reaction. End session with a 15-minute relaxation exercise.
- Session 9: Begin session with a 10-minute meditation exercise. Participants are asked to identify how they are feeling and to share this with the group. Participants to work in pairs to share insights gained from the exercise on reactions versus feelings. Participants to help one another to try to understand their reactions. Participants to share experiences in the group and with the help of the group leader, to identify the connections to inner core, the TABP, self-esteem, and so on. End session with a 15-minute relaxation exercise.
- Session 10: Group leader introduces the concept of mind-body interface and the drama as played out in the lived body so that everything that happens in the body has meaning. Conduct a 10-minute meditation exercise in which participants are asked to identify a physical sensation in the body and then to translate it into emotional language. Share feelings with the group. Participants will be asked to brainstorm a list of everyday sayings which pertain to the language as expressed in the body. Participants are asked to listen to everyday communications by others to identify a connection between mind and body and to discuss these in the next session. End session with a 15-minute relaxation exercise.
- Session 11: Group leader advises participants that this meditation and visualisation exercise will work with the experience of the body and of the heart attack. Participants are asked to share how they feel about this. Conduct a 20-minute meditation and visualisation exercise. Participants to share experiences. End session with a 5-minute relaxation exercise.
- Session 12: Begin session with a 5-minute meditation exercise. Group sharing of the experience with the group. Group leader to bring all major issues together and to facilitate closure.

## APPENDIX D

How does your heart work?

THE HEART IS A MUSCLE THAT PUMPS BLOOD AND OXYGEN TO ALL PARTS OF THE BODY.

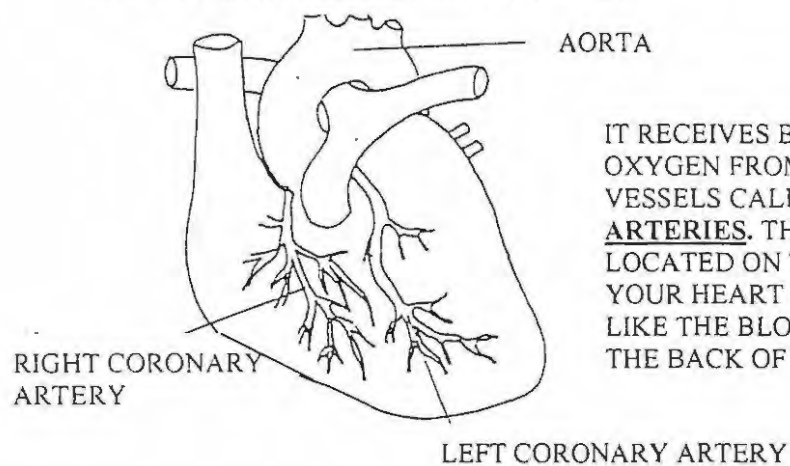


SIZE: THE HEART IS APPROXIMATELY THE SIZE OF A FIST

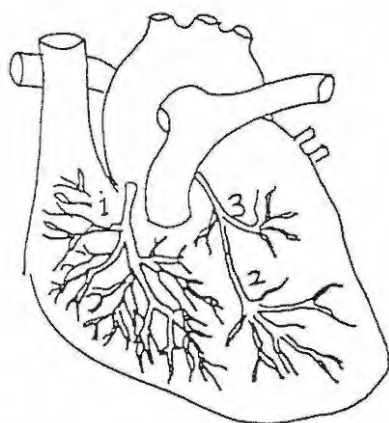
LOCATION: IT IS LOCATED BEHIND THE BREAST BONE USUALLY A LITTLE TO THE LEFT OF THE CENTRE OF THE CHEST

\* Adapted from overheads Fullard (1982)

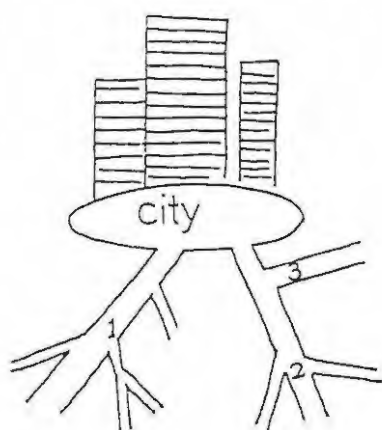
NOURISHMENT: HOW DOES YOUR HEART RECEIVE THE BLOOD AND OXYGEN IT NEEDS TO STAY ALIVE?



IT RECEIVES BLOOD AND OXYGEN FROM SPECIAL BLOOD VESSELS CALLED CORONARY ARTERIES. THESE ARTERIES ARE LOCATED ON THE OUTSIDE OF YOUR HEART MUSCLE MUCH LIKE THE BLOOD VESSELS ON THE BACK OF YOUR HAND

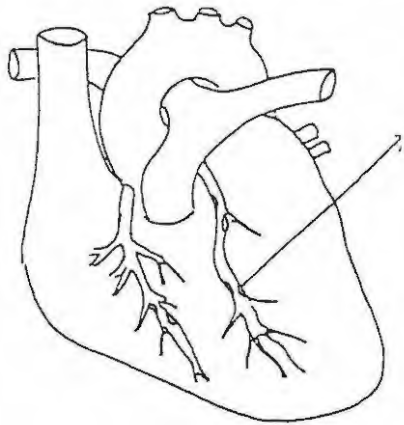
CORONARY ARTERIES

YOU HAVE THREE MAJOR CORONARY ARTERIES WITH MANY SMALLER BRANCHES



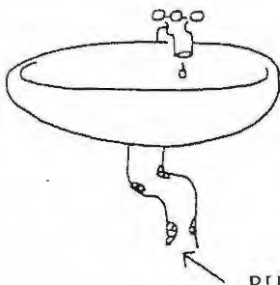
MUCH LIKE THREE MAJOR EXPRESS WAYS AND MANY SMALLER SIDESTREETS

CHOLESTEROL



CHOLESTEROL

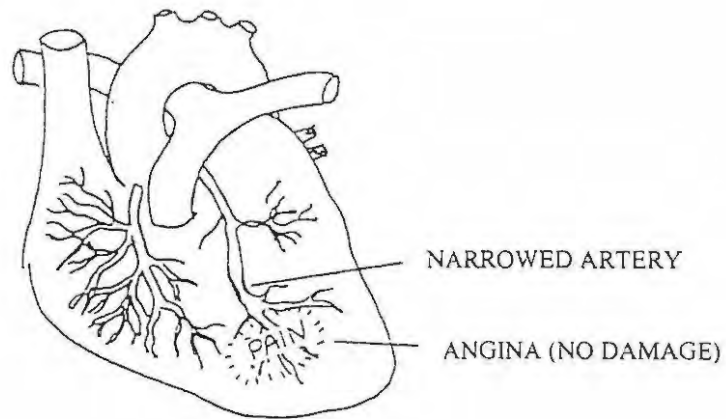
CHOLESTEROL IS A FAT IN THE BLOOD. IT STICKS TO THE INSIDE OF BLOOD VESSELS AND CAN CAUSE BLOCKAGES IN THE ARTERY



RUST

SIMILAR TO THE WAY RUST WILL BLOCK WATER PIPES

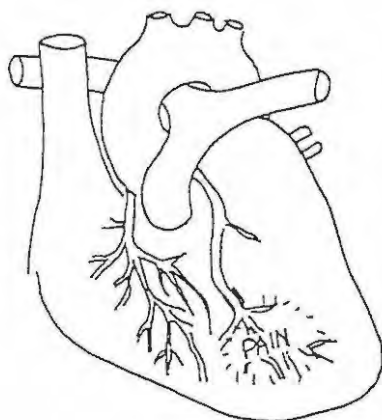
ANGINA (CHEST PAIN)



ANGINA (CHEST PAIN) HAPPENS  
BECAUSE A CORONARY ARTERY IS  
NARROWED AS A RESULT OF A BUILD UP  
OF CHOLESTEROL

PAIN SHOULD ABATE WITH REST BUT  
IDEALLY A NITRATE SPRAY MAY BE USED

### ANGINA



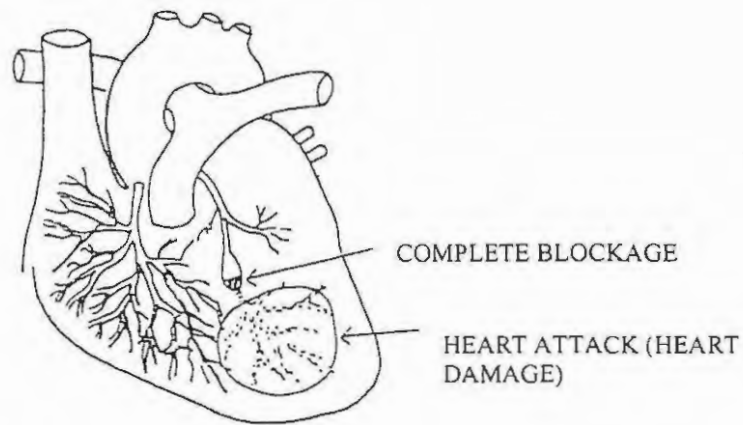
IF YOU FEEL A TIGHT BAND ACROSS THE CHEST, OR IN THE LEFT ARM, OR BOTH ARMS, JAW AND NECK, OR EVEN SHORTNESS OF BREATH, IT MAY BE A WARNING SIGNAL TO SLOW DOWN.

1. STOP WHAT YOU ARE DOING AND REST.
2. USE YOUR NITRATE SPRAY AS ORDERED.



IF YOU CLIMB A HILL, THE BACK OF YOUR LEG MAY HURT. THIS IS A WARNING SIGNAL TO SLOW DOWN.

### WHAT IS A HEART ATTACK?



IF A BLOOD VESSEL GOING TO THE HEART MUSCLE IS COMPLETELY BLOCKED, NO BLOOD AND OXYGEN CAN GET BEYOND THE BLOCKAGE.

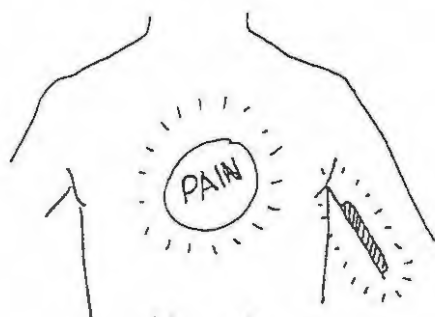
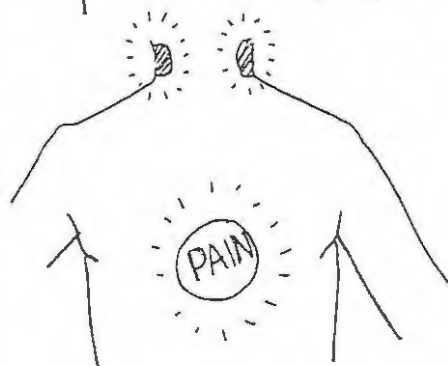
WITHOUT OXYGEN, THE HEART MUSCLE DIES AND THERE IS HEART DAMAGE. THIS IS CALLED A HEART ATTACK.

OTHER WORDS YOU MAY HEAR WHICH MEAN HEART ATTACK: CORONARY MYOCARDIAL INFARCTION  
MI

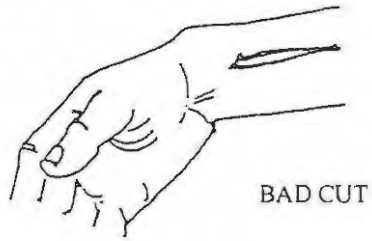
SYMPTOMS: EVERYONE HAS DIFFERENT KINDS OF PAIN OR FEELINGS: SEVERE CHEST PAIN, OFTEN RADIATING TO THE NECK OR LEFT ARM, DIZZINESS, NAUSEA, BLACKOUTS, PROFUSE SWEATING, SHORTNESS OF BREATH AND PALPITATIONS



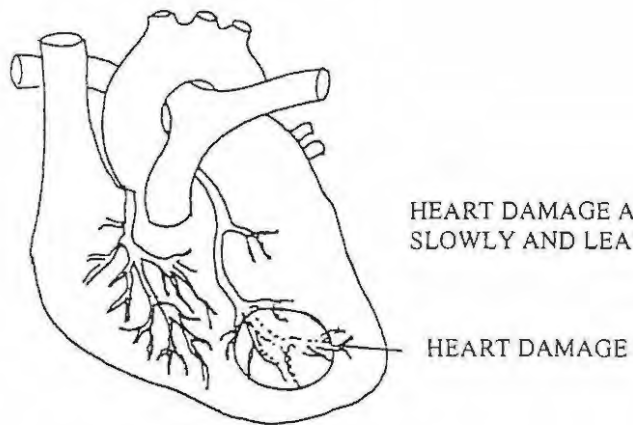
CHEST PAIN

CHEST PAIN AND  
PAIN IN THE ARMCHEST PAIN AND PAIN  
IN THE NECK

## HEALING PROCESS



A BAD CUT IS SWOLLEN AND SORE.  
IT SLOWLY BEGINS TO HEAL AND  
THEN LEAVES A SCAR.



HEART DAMAGE ALSO HEALS  
SLOWLY AND LEAVES A SCAR.

HEART DAMAGE

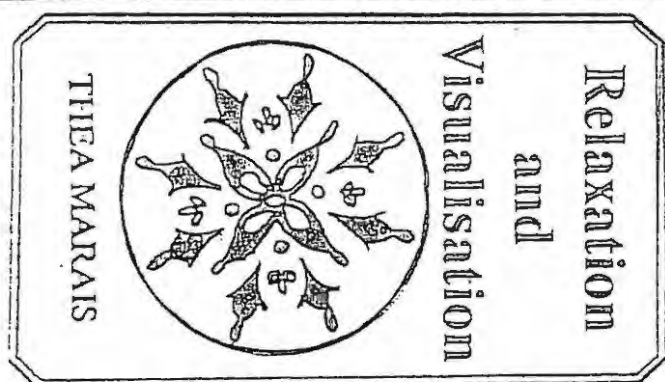
## APPENDIX E

Relaxation Tape Insert

## RELAXATION AND VISUALISATION

A: Progressive Relaxation Technique (18 mins)  
Relaxation (Short Version) (12 mins)

B: Visualisation/Guided Imagery (15 mins)  
Visualisation/Guided Imagery (15 mins)



## RELAXATION &amp; VISUALISATION

THEA MARAIS

**Introduction**

Doctors have long acknowledged that many physical ailments have their source in unresolved mental or emotional conditions.

The relaxing of bodily and mental tension by simple techniques is considered to be an important aspect of the maintenance and re-establishment of health. New behavioural therapies that highlight the imagination, such as guided imagery, have been shown to positively influence the immune system.

**Relaxation**

Relaxation is a method of clearing your body of tension. Progressive relaxation is a technique in which you learn to appreciate the difference between tension and relaxation. A conscious balance between these two opposites, can only be achieved by constant practice.

Once your physical body is relaxed, it is necessary to relax your mind and let go of thoughts and anxieties. This can be achieved by guided imagery or visualisation.

**Visualisation**

Visualisation is the creation of a pleasant mind space, or the creation of mind-pictures which generate thought-forms, and is an essential part of healing on all levels. Visualisation or imagery (both positive and negative) has always played an important role in medicine. Visualisation is the thought process that invokes and uses all the senses: sight, hearing, smell, taste and touch.

By creating a pleasant mind space or picturing scenes of tranquility, comfort and peace in vivid detail, and mentally transporting yourself to such places, you can successfully assist in the control of any pain or tension you might be experiencing.

Visualisation can help you to feel more relaxed and peaceful, while it increases your vitality and improves your health: it decreases your level of arousal and stress and thus improves sleep.

**Use of the tape**

When listening to the tape, sit in a comfortable chair or lie flat on the floor (with your head supported) in a quiet room without too much light, where you are not likely to be interrupted.

The progressive relaxation technique on Side A needs to be practised at least once (preferably twice) a day for a few weeks until you begin to be able to relax without having to tense the muscles first. Initially listen to the progressive relaxation technique first and then turn the tape over to Side B, wind it back to the beginning and listen to the visualisation. Later it will be sufficient for you to listen to the short version of relaxation on the second half of Side A and then listen to Side B.

The visualisation on Side B is to aid you in relaxing your mind and letting go of thoughts and concerns. Remember that you do not have to follow the voice all the time. If you are experiencing some significant imagery of your own, stay with it while the voice goes on. You will be able to catch up and carry on with the voice later. The relaxation and visualisation sessions do take time but you are worth the time. If you are ill, it is recommended that you do relaxation and visualisation (either together or separately) three or more times a day. The benefits of relaxation and visualisation spill over into the hours afterwards, and you maintain a reserve of calm while facing the stress of other activities.

Note: Research has shown that taped progressive relaxation (and visualisation) is inferior to supervised (live) progressive relaxation. It is thus suggested that where possible this tape is used in between live relaxation sessions and that it is not used as the initial means of learning relaxation and visualisation.

The use of headphones is not recommended.

**Acknowledgements**

Recording & Reproduction - Graham Sound & Electronics (Pty) Ltd  
Phone :- 61-7748 or 531-2667

## APPENDIX F

### Wording for Progressive Relaxation Training

One is always in some state of tension. Without some tension it would be difficult to be motivated or to take action. The aim of the relaxation exercise is to teach you how to reach an optimum level of tension which encourages functioning. From this point of optimum tension, you will be able to detect a state of excessive tension, which, of course, detracts from efficient functioning. Progressive relaxation training is a method of tensing and then relaxing various groups of muscles in the body. This is done in a particular sequence. At the same time as tensing and relaxing the muscles, it is important to pay attention to the sensation or feelings associated with tension and relaxation.

The importance of creating tension and then relaxation is to help to tell the difference between the two states so that you can learn to reduce muscle tension in your body. Once you have experienced the sensation of muscle tension, and then the sudden release of this tension, you will soon be able to compare the different sensations in the two states, that is, tension and relaxation. Training your body and increasing self-awareness about tension and relaxation will assist you in working with these two states, and hopefully encourage you to learn to decrease tension and increase relaxation. The operative word here is "learn". Achieving a state of relaxation will happen immediately, and you will need to practise the exercises in order to master them. Here is a relaxation tape for you to use at home. Please listen to the tape at least once a day. First practise the relaxation exercise on Side A and then turn the tape over, rewind it, and listen to the visualisation exercise on Side B. Eventually you will learn to relax without having to create tension

first. I would briefly like to describe the 15 muscle groups and the exercise you will need to carry out to create tension in each. You may follow along with me if you wish.

The muscle groups and the method of tension for each are as follows:

MUSCLE GROUP	METHOD OF CREATING TENSION
1. The hands and the lower arms.	Clench fists.
2. The front upper arms.	Push yours elbows into the side of your body.
3. The muscles at the back of the upper arms.	Straighten your arms as hard as you can.
4. The shoulders and the top of the neck.	Shrug your shoulders and draw them into the top of your neck.
5. The neck.	Press your head back against the floor, or the wall if sitting.
6. The forehead.	Raise your eyebrows.
7. The eyelids and around the eyes.	Squeeze your eyes tightly.
8. The jaw.	Bite your teeth together.
9. The tongue and the throat.	Push your tongue up against the roof your mouth. (Instruction to relax: "You may need to swallow to relax").
10. The lips and the face.	Press your lips together tightly.
11. The legs.	Point your toes down.
12. The calf muscles.	Pull your toes up towards your head.
13. The hips and the lower back.	Arch your back and tense your buttocks.
14. The stomach.	Pull your stomach in tightly.
15. The chest.	Breathe in through your nose and hold your breath until I tell you to relax. Relax by breathing out through your mouth.
16. General breathing.	Keep your breathing shallow.

Once you have freed your body of tension, it is important to relax the mind and to let go of thoughts and anxieties. This is done by means of guided imagery or visualisation.

### Guided Imagery or Visualisation

Visualisation is the creation of a pleasant mind space. This can be achieved through guided imagery and by picturing scenes of tranquillity, such as walking on a beach or through a forest. Through the guided imagery and visualisation, you are mentally transported to a scene of tranquillity where you can increase your state of relaxation and reduce your levels of stress and tension.

Now I would like you to make yourselves comfortable. You can either remain in your chair or you can lie on the floor. Please make sure that you can lean your head back against the wall if you are going to remain sitting in your chair. Please remove your watch and your glasses. If you wear contact lenses you may wish to wear glasses next time so that you will be comfortable during the exercise. I will dim the lights slightly.

## APPENDIX G

### Wording for the seven-muscle group relaxation exercise

The seven-muscle group relaxation techniques were as follows:

MUSCLE GROUP	METHOD OF CREATING TENSION
1. Dominant arm: (hand, lower arm and bicep).	Hold the arm out, bend the elbow and make a fist.
2. Other arm.	Same as for dominant arm.
3. Facial muscles.	Raise eyebrows, squeeze eyes, wrinkle nose, bite jaw.
4. Neck.	Push head back against floor, or wall. Push tongue up against the roof of the mouth.
5. Chest, shoulders, abdomen.	Take a deep breath and hold it. At the same time shrug shoulders, pull in stomach.
6. Dominant thigh, calf and foot.	Lift leg, point toes and turn foot inward.
7. Other leg.	Same as for dominant leg.

## APPENDIX H

### Wording for lecture, Session 2

#### THE TYPE A BEHAVIOUR PATTERN (TABP)

The term Type A behaviour pattern (TABP), was coined by two cardiologists to describe a particular behaviour pattern which they consistently observed in their CHD patients. By the early 80s the TABP was firmly established as an independent risk factor for CHD, and in 1993 conclusive evidence linked it with any person who had had a myocardial infarction under the age of 60.

The Type A behaviour pattern is exactly that, a pattern of observable behaviour which is evoked in response to situations or challenges. Because it is a behavioural pattern, it can be moderated. Some Type As can turn their Type A pattern into something positive to assist in rehabilitating from a heart attack. They take their rehabilitation as seriously as they approach any other job! So the pattern is beneficial for some individuals.

The observable behaviours that make up the Type A behaviour pattern include extreme competitiveness, striving for achievement, aggressiveness, impatience, haste, restlessness, and feelings of being challenged by responsibility under the pressure of time. A person does not need to exhibit all these behaviours to be classified as Type A. Of importance is the extreme habitual nature of those behaviours that are present.

The following major subcomponents make up the TABP:

**COMPETITIVENESS:** Type As see themselves as hard-driving, conscientious, responsible, serious, competitive, and putting forth more effort than other people. Type As are self-critical, and self-demanding. They set high standards for themselves and appear “inner directed”. That is, their sense of self-worth is dictated by accomplishments and productivity so this makes it difficult for them to relax. Activities which provide some form of competition and personal challenge are constantly sought out. This includes a tendency to compete excessively with or attempt to dominate the thoughts, beliefs, and actions of other persons. These individuals often have a challenging, high-pressured job. They work overtime and confront important deadlines. They often think and do numerous things at the same time and therefore appear hyper-alert and constantly on the move. They may therefore miss subtle details in their physical and social environments.

Frustration of this competitive drive often leads to impatience with themselves and with others. In relationships this is manifested as irritability, especially at imposed delays, not always listening to the other person and finishing sentences for others.

**TIME URGENCY:** An attempt to obtain or achieve too many things in too little time gives the TABP a sense of time urgency. There is a tendency to eat very rapidly, become impatient with the conversation of others, hurry other people along, have strong tempers, and become irritated easily.

When the person's attempts at success and achievement are frustrated, she or he may feel anger which is often displayed as AGGRESSION OR FREE-FLOATING HOSTILITY.

Behaviour is the tapestry of the psyche. All behaviour has meaning and can be a clue to understanding a person. The Type A individual who is at risk of coronary heart disease needs to understand this behaviour and its underlying origins. For the Type A person, the behavioural pattern has become the way in which she or he disguises and overcomes insecurities. The fact that the abovementioned behaviours are in fact encouraged in society today in terms of productivity and success, makes it difficult to understand how these behaviours can be detrimental to one's health. In Session 3 we will deal with the negative effects of Type A behaviour on stress and the stress response. As we progress through the programme you will gain better insight into the nature of your Type A behaviour and into the underlying deeper issues.

### TYPE A BEHAVIOUR

- It is a *pattern of behaviour*.
- It can be modified and channelled positively.
- Observable behaviours:
  - ◆ Extreme competitiveness
  - ◆ Striving for achievement
  - ◆ Aggressiveness
  - ◆ Impatience
  - ◆ Haste
  - ◆ Restlessness
  - ◆ Time urgency, or time pressure
- Not all behaviours need be present for Type A classification.
- What is present is usually extreme and habitual.

### COMPETITIVENESS

- A tendency to compete excessively with others: activities, thoughts, beliefs and actions.
- Hard-driving, conscientious, responsible, serious, competitive, put in more effort than others.
- Self-critical, self-demanding, set high standards for themselves.
- Appear “inner-directed”: self-worth is dictated by accomplishments and productivity.

- Find it difficult to relax.
- Seek out challenges.
- Challenging, high-pressured jobs.
- Work overtime, confront deadlines.
- Do more than one thing at a time and appear hyper-alert and constantly on the move.
- They therefore miss subtle details in their physical and social environments.
- Frustration of this competitive drive leads to irritability and impatience with self and others (e.g., finish another person's sentences).
- Delays lead to irritability.

### TIME URGENCY

- An attempt to obtain or achieve too many things in too little time.
- Eat rapidly.
- Become impatient with the conversation of others.
- Hurry other people along.
- Have strong tempers.
- Become easily irritated.

### AGGRESSION OR FREE-FLOATING HOSTILITY

- Frustration of the person's attempts at success and achievement leads to anger.  
(For example, when driving to work and someone cuts in front of you, how irritated, angry, do you feel?)

APPENDIX I  
The Self-Monitor Worksheet

WORKSHEET: SESSION TWO

THE SELF-MONITOR

A rather harsh and rigid internal critic that is a perfectionist usually lies at the core of the Type A Behaviour Pattern (TABP). The aim of this exercise is to help you to develop a self-monitor that is respectful, curious, and interested in understanding the self. A helpful self-monitor observes behaviours, attitudes and emotions, and generally chooses to respond in a patient, calm and reassuring manner. The reduction of chronic physical arousal is vital for dealing with stress, and the development of self-awareness will aid in achieving this.

Note: Page 2 of this document includes examples from participant's own worksheets which were added in a later version as this exercise was not initially clear.

Date	Situation	Behaviour	Emotion	Self-Critic's Response	Self-Monitor's Response
31.07.02	Spouse is driving home. S/he keeps applying brakes.	Tense, silence.	Fear.	I am a hopeless passenger.	It is okay to be scared. This person does not drive very well.
31.07.02	Shampooer not washing hair properly.	Tense, silence.	Irritation.	I am so impatient.	It is okay to be impatient, I am allowed to expect good service.
31.07.02	Maid left washing out overnight.	Raise voice at the maid.	Irritation, exasperation, frustration.	I am such a bad boss.	It is okay to be angry, but I need to find another way of dealing with this.
31.07.02	Cold water comes through while having a shower.	Shout at son for running the bath water. Shout and scream.	Anger.	I am such a bad tempered person.	It is okay to be angry, but I need to find another way of dealing with this.
31.07.02	My 86-year old mother keeps forgetting what she has said to me.	Withdrawn, edgy.	Fed-up, frustrated, depressed.	I feel so guilty for not being more patient.	It is okay to feel scared that someone I care about is getting old.
31.07.02	Late arrival of repairman.	Find fault with everybody at home. Leave home to play golf.	Irritable, frustrated.	I am so impatient.	It is okay to feel this way but I need to find another way of expressing it.

CODE NAME: \_\_\_\_\_

Date	Situation	Behaviour	Emotion	Self-Critic's Response	Self-Monitor's Response

CODE NAME: \_\_\_\_\_

## APPENDIX J

Bombs and Fuses WorksheetWORKSHEET: SESSION TWOBOMBS AND FUSES

In this exercise, the *Bomb* is identified as the heart attack, occluded coronary arteries, or cardiac denial. The Bomb can be detonated by any of the following *Fuses*:

- A. Type A behaviour pattern (TABP), especially anger and impatience.
- B. Excessive and prolonged physical exertion at a high altitude (that is, above 5 000 ft).
- C. Excessive and prolonged physical activity to a state of exhaustion.
- D. One extremely heavy-fat meal.
- E. Chronic mental and emotional exhaustion.
- F. Excessive use of caffeine.
- G. Chronic abuse of alcohol.
- H. Excessive smoking.

These *Fuses* are commonly experienced risk situations which, over time, will put you in jeopardy of exacerbating your heart disease risk. Use the following work sheet to identify potential *Fuse* behaviour.



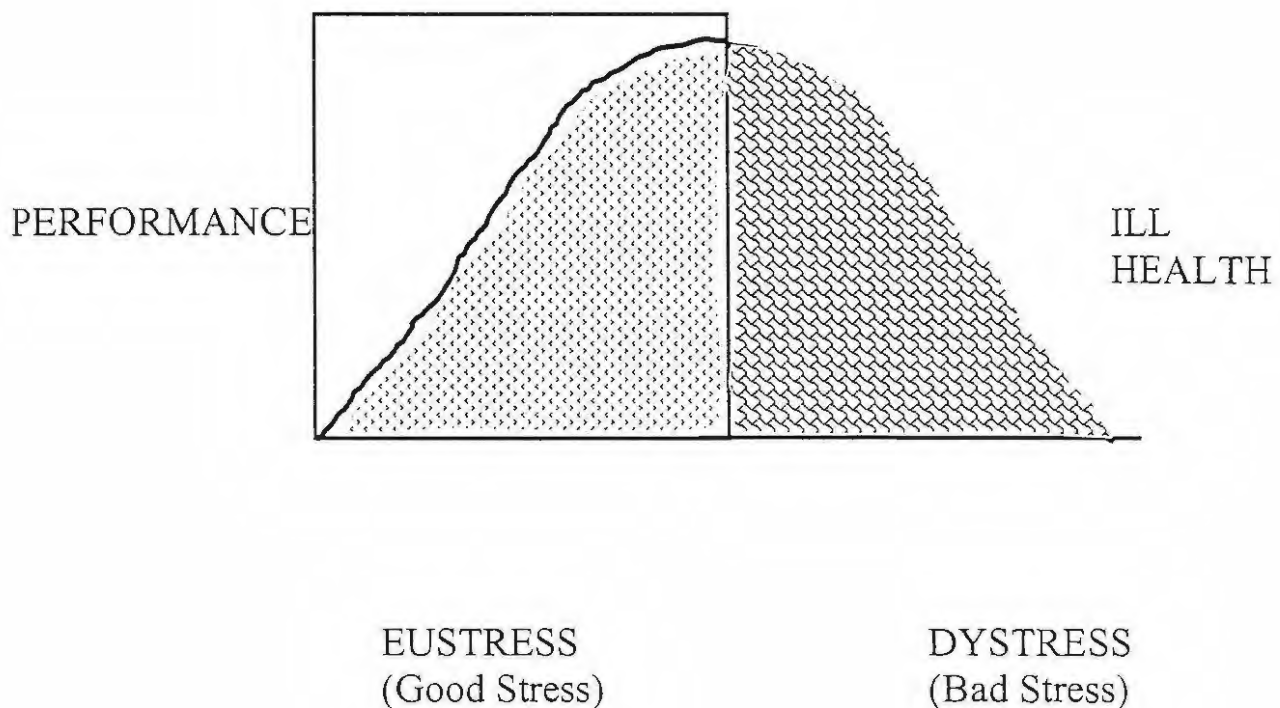
## APPENDIX K

Stress LectureSTRESS

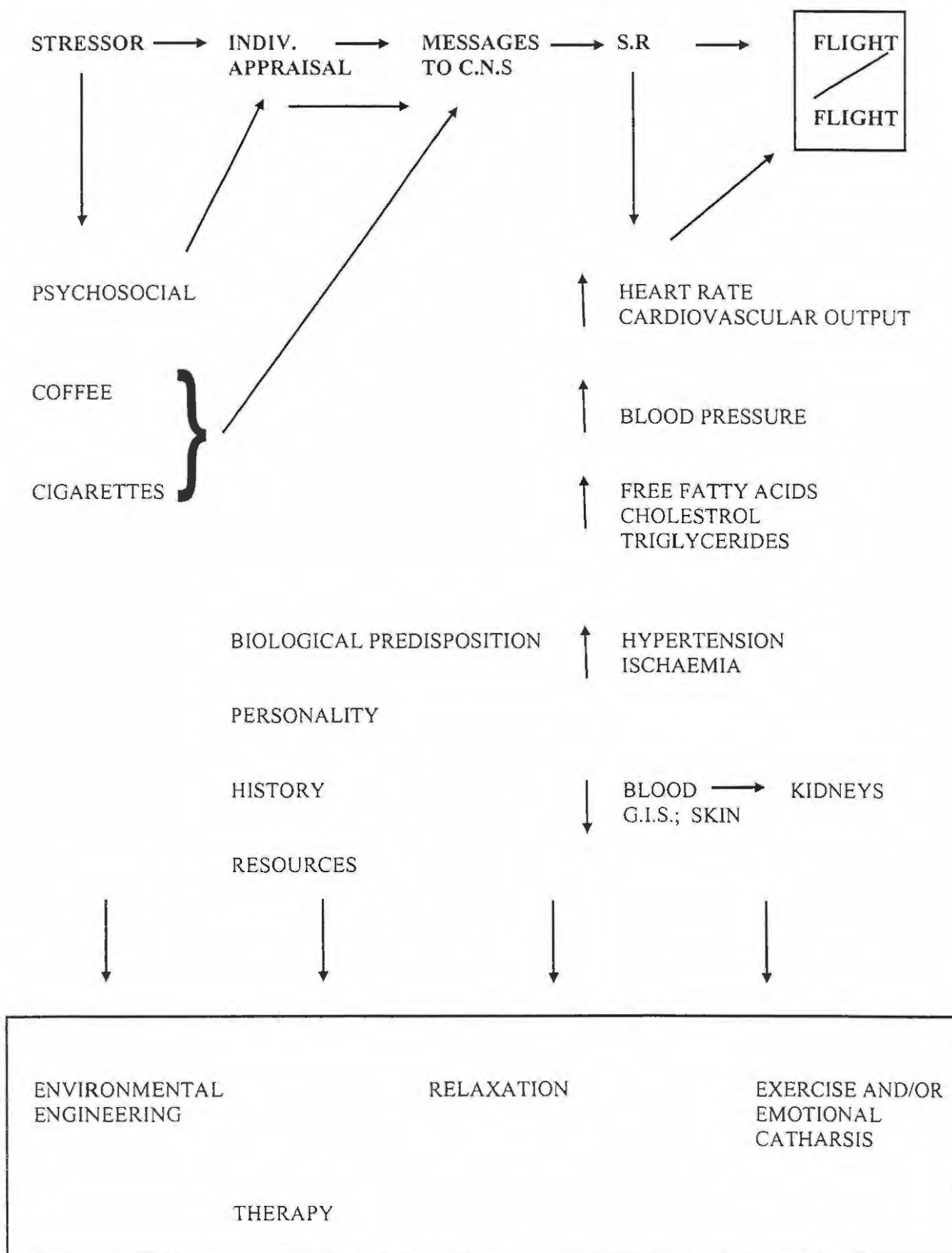
- Caused by a lifelong way of coping  
(Your particular personality style)

## OFTEN

- Type – A
- Take the risk factors, poor life-style and stress = poor health
- It is a fight / flight response that prepares you for action



APPENDIX L  
Adapted version of Everly's systems approach to stress



## APPENDIX M

The Holmes and Rahe stressful life events scaleSELF-ASSESSMENT DEVICE 2-1: HOLMES-RAHE  
STRESS TEST

---

Which of the following events have you experienced within the last two years?

---

Event	Points	Event	Points
1. Death of spouse	100	24. Trouble with in-laws	29
2. Divorce	73	25. Outstanding personal achievement	28
3. Marital separation	65	26. Spouse begins or stops work	26
4. Jail term	63	27. Begin or end school	26
5. Death of close family member	63	28. Change in living conditions	25
6. Personal injury or illness	53	29. Revision of personal habits	24
7. Marriage	50	30. Trouble with boss	23
8. Fired at work	47	31. Change in work hours or conditions	20
9. Marital reconciliation	45	32. Change in residence	20
10. Retirement	45	33. Change in schools	20
11. Change in health of family member	44	34. Change in recreation	19
12. Pregnancy	40	35. Change in church activities	19
13. Sex difficulties	39	36. Change in social activities	18
14. Gain of new family member	39	37. Mortgage or loan less than \$10,000	17
15. Business readjustment	39	38. Change in sleeping habits	16
16. Change in financial state	38	39. Change in number of family get-togethers	15
17. Death of close friend	37	40. Change in eating habits	15
18. Change to different line of work	36	41. Vacation	13
19. Change in number of arguments with spouse.	35	42. Christmas	12
20. Mortgage over \$10,000	31	43. Minor violations of the law	11
21. Foreclosure of mortgage or loan	30		
22. Change in responsibilities at work.	29		
23. Son or daughter leaving home	29		

---

What is your total score? A total below 150 indicates low stress, between 150 and 199 mild stress, between 200 and 299 moderate stress, and above 300 major stress.

---

Source: Adapted from T. H. Holmes and R. H. Rahe, "The Social Readjustment Rating Scale", *Journal of Psychosomatic Research*, 11 (1967): 213-218. Copyright 1967.

## APPENDIX N

### Wording for lecture, Session 3

#### TIME-URGENT BEHAVIOUR

It has been established that Type As incorrectly estimate the passage of time and are likely to signify more quickly than Type B persons that one minute has passed. Type As are more likely to subscribe to deadline control and complete survey questionnaires in a shorter time-period than Type B persons. Type A persons may make significantly more errors under time pressure, react with impatience when the completion of a task is delayed by another person, schedule too many activities in their available time and work at a faster pace than Type Bs. In essence, Type As are definitely more time urgent than Type Bs. Individuals characterised by time urgency are concerned with how to fill the passage of time with productive activity and with the greatest efficiency. Unfortunately, general hurry and deadline control are usually enforced in work environments where productivity is manifested in terms of heavier workload and a faster work pace. Time urgency behaviour results in the physical stress response which, over a period of time, places one in jeopardy for exacerbating cardiac disease risk.

The psychological symptoms of time urgency include impatience, difficulty relaxing, restlessness, "racing mind", sleep disturbances, multi-tasking, either chronic punctuality or lateness, chronic feelings of time pressure, feeling overburdened or overwhelmed, often poor relationships or lack of close friends.

## APPENDIX O

### Time Urgency Worksheet

#### WORKSHEET: SESSION THREE

#### TIME URGENCY BEHAVIOUR

It has been established that Type As incorrectly estimate the passage of time and are likely to signify more quickly than Type B persons that one minute has passed. Type As are more likely to subscribe to deadline control and complete survey questionnaires in a shorter time-period than Type B persons. Type A persons may make significantly more errors under time pressure, react with impatience when the completion of a task is delayed by another person, schedule too many activities in their available time and work at a faster pace than Type Bs. In essence, Type As are definitely more time urgent than Type Bs. Individuals characterised by time-urgency are concerned with how to fill the passage of time with productive activity and with the greatest efficiency. Unfortunately, general hurry and deadline control are usually enforced in work environments where productivity is manifested in terms of heavier workload and a faster work pace. Time-urgency behaviour results in the physical stress response which, over a period of time, places one in jeopardy for exacerbating cardiac disease risk.

The psychological symptoms of time-urgency include impatience, difficulty relaxing, restlessness, "racing mind", sleep disturbances, multi-tasking, either chronic punctuality or lateness, chronic feelings of time pressure, feeling overburdened or overwhelmed, often poor relationships or lack of close friends.

This homework exercise aims to make you aware of time-urgency behaviour so that you can modify your actions and attitudes in the areas of impatience (e.g., eat more slowly); hostility (e.g., purposely say "maybe I'm wrong"); self-esteem (e.g., contemplate your positive achievements for 10 minutes); and improving relationships (e.g., ask a family member about his or her day's activities). For each day of the week you will be asked to practise an exercise to help you achieve this aim.

### DAILY BEHAVIOUR EXERCISES

Please note the exercise marked for each day of the week and practise that particular behaviour for the whole day. On the sheet, make a note of how it felt to do the exercise. Note if you found it easy or difficult. Also note which ones you would like to incorporate into your daily routine.

Day of the week	Behaviour to be practised	Your comments
Monday	Walk, talk and eat more slowly.	
Tuesday	Practise doing one thing at a time	
Wednesday	Drive in one of the slow lanes.	
Thursday	Try to schedule your morning before work so it is not rushed; ideally give yourself a little idle time.	
Friday	Ask family members about their daily activities.	
Saturday	Leave off your watch.	
Sunday	Alter one of your usual habits or way of doing things.	

**Other exercises which you might wish to work with:**

1. Verbalise affection to your spouse and children.
2. Practise smiling as you remember two to three happy events of the past.
3. Each day, sit for five minutes in a quiet place and empty your mind of all thoughts about daily activities.
4. Sit at the dining room table during meal times.
5. Do not read or work at meals.
6. Plan how to spend time relaxing after each meal. For example, listen to music, watch television or read the newspaper.
7. Leave your place of work and spend time relaxing somewhere else. Do not work, and do not even think about work during this time.

## APPENDIX P

Wording for lecture, Session 4

1. Has anyone become angry, irritated or impatient in the past 24 hours?
2. Briefly, what caused this response?



NB: Something or someone made me angry. The environment, the other person made me do it. How about changing the direction of the arrow?

You have a choice.

You can:

Change others

Change the environmental stressor

or

Change the way you think about others or the stressor.

NB here is that you can CHOOSE how to respond.

## What is impatience or irritation?

It is a response to a stressor.

1. The reaction is immediate. (A quick response)
2. We think there is no thought behind the reaction because it is so quick.

Often our reaction is to a small stressor. We can also refer to these as daily hassles.

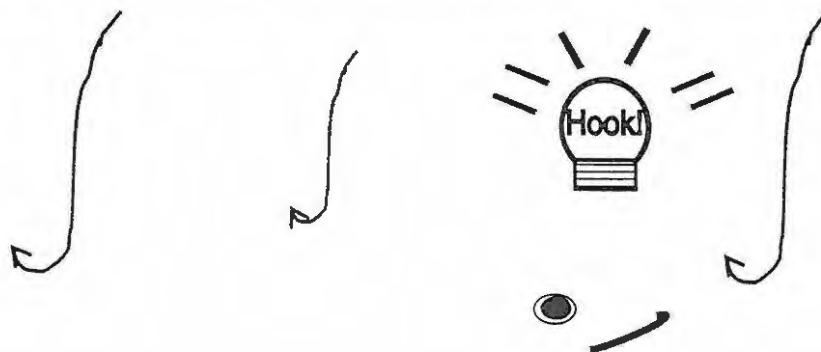
3. What makes them difficult to manage is that they are often unpredictable.

A quick response to a small and unexpected stressor.

Why me? This is unfair, etc.

Important thought is that one can intervene.

**Stressors are hooks.** Learn to change your perception of the stressor, because you cannot always change the stressor itself. That is, the change is in your perception of the event.



## APPENDIX Q

### Bait and Hook Worksheet

#### WORKSHEET: SESSION FOUR

#### BAIT AND HOOK

As one moves through the unpredictable waters of life, imagine that you encounter certain obstacles and provocative situations that act like bait that trigger off an aggressive response. This response often takes the form of anger, irritation, aggravation or impatience (AIAI). It is important to note that it is one's personal perception of a situation which acts as the hook that activates the aggressive response.

With this homework exercise, you are encouraged to identify situations that act as bait, as well as to identify your own personal belief systems (i.e., hook attitudes). Belief systems that are challenged include ideology (e.g., politics, religion) as well as attitudes towards others, oneself and life itself.

Examples of the Bait and Hook metaphor are outlined below:

Date	Bait Situation	Hook Attitude	Underlying Belief System
31.07.02	Deadline at work. Struggling to get to appointment on time.	People must get out of my way. This deadline is important. Why can't they understand this?	Deadlines must be met at all costs. I am so effective because I meet all deadlines.
31.07.02	You read an article on violence in South Africa that offers a different philosophy to your own.	What is the matter with these people, can't they understand the problem?	Your particular ideology about politics.
31.07.02	Someone at work or at home makes a really silly mistake.	This mistake inconveniences me. I wouldn't have made that mistake.	Perhaps a belief that only others make trivial mistakes?



## APPENDIX R

Overhead for lecture, Session 5

You

I feel

Why

What

When

Where

Who

How

## APPENDIX S

Overhead for lecture, Session 6LISTENING WITH EMPATHY

Some simple rules:

- a. Do not give advice unless it is asked for.
- b. Do not give reassurance unless it is requested.
- c. Do not give testimonials about your successful or unsuccessful experiences with a problem.

Some simple guidelines:

- a. Empathic responses usually take the form of sharing a feeling as a physical sensation. For example, "I felt queasy while I was listening to you describe that".
- b. Or as a feeling response. For example, "I feel frustrated that I cannot make it better for you".
- c. Or as a memory of a similar experience which can be shared simply and directly.

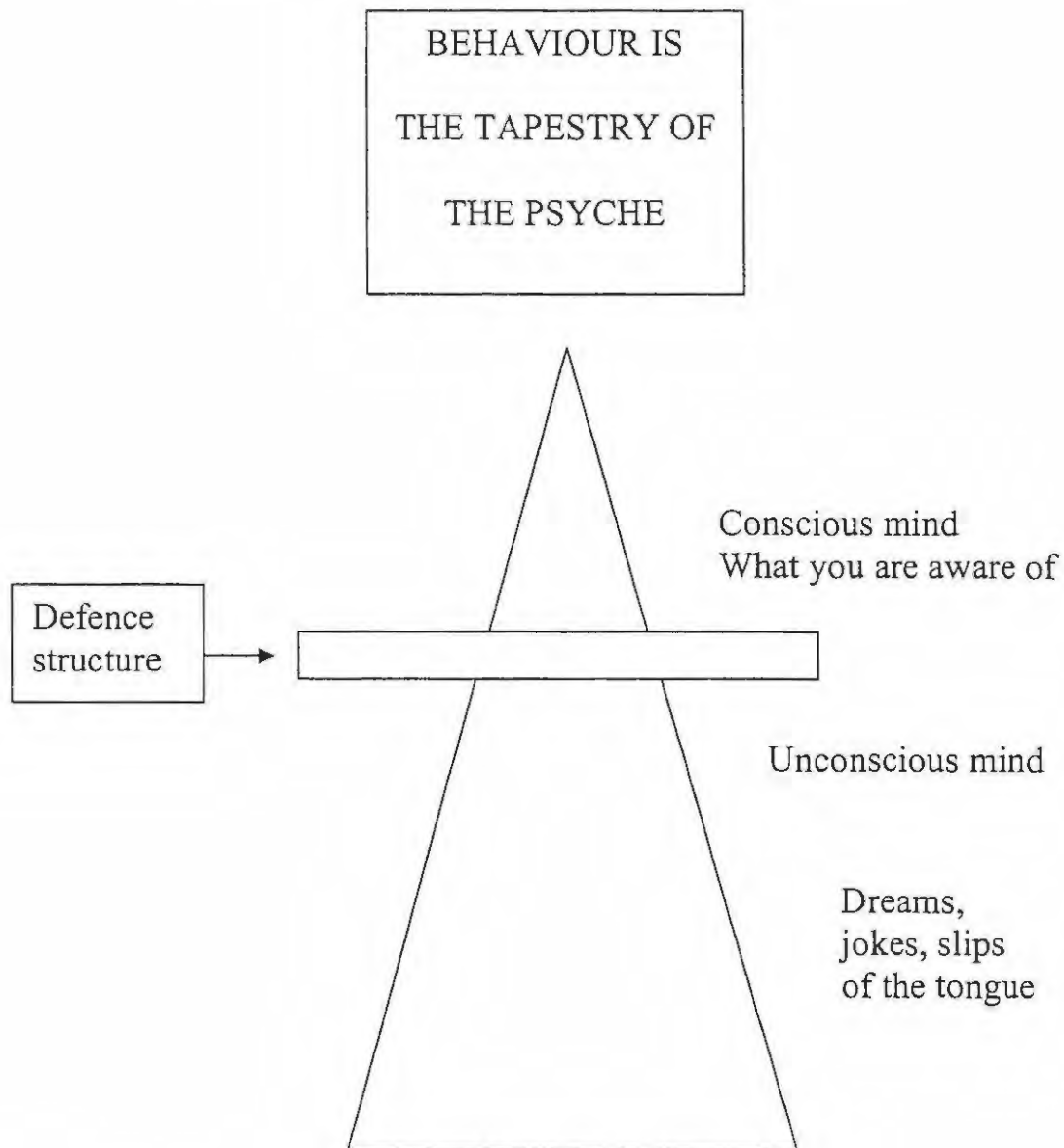
REMEMBER:

Do not start sentences with "you" or "why".

Use "I feel..." messages.

Start questions with what, when, where, who or how.

## APPENDIX T

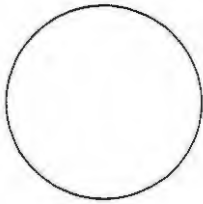
Overhead for lecture on Behaviour, Conscious andUnconscious, Session 7

- Therapy:
- Reveals the unconscious
  - Connects conscious and unconscious
  - Nothing new is revealed (you know it)  
It is just new to consciousness

## APPENDIX U

Overhead for lecture on "Self and Other", Session 7

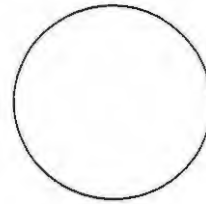
SELF



DEFENCES



OTHER



## APPENDIX V

Overhead for lecture on connections between Self and Other,Session 7

Important to create bridges between: - self and other

- conscious and unconscious

- emotions and experiences

Every person, every experience that one reacts to is a mirror of oneself. It is important to learn from these experiences and interactions.

Do this by understanding one's behaviour and emotional reactions.

## APPENDIX W

### Greek Myth of Narcissus

Narcissus was a physically perfect young man, the object of desire among the nymphs, for whom he showed no interest. One nymph, Echo, loved him deeply and one day approached him and was rudely rejected. In her shame and grief she perished, fading away, leaving behind only her responsive voice. The gods, in deciding to grant the nymphs' wish for vengeance, contrived that Narcissus would also experience the feelings of an unreciprocated love. One day, looking into a clear mountain pool, Narcissus espied his own image and immediately fell in love, thinking he was looking at a beautiful water spirit. Unable to tear himself away from this mirror image, and unable to evoke any response from the reflection, which disappeared every time he attempted to embrace it, he gradually pined away and died. When the nymphs came to bury him, he too had disappeared, leaving in place a flower.

Cooper (1986, p. 112.)

## APPENDIX X

### List of Defence Mechanisms, Session 7

#### Narcissistic Defences

Denial	Avoiding the awareness of some painful aspect of reality.
Distortion	Grossly reshaping external reality to suit inner needs.
Projection	Placing one's reactions into the outside world. That is, reacting to inner impulses as though they were outside of the self.
Splitting	Separating out feelings, experiences and thoughts. Compartmentalising these to keep them separate and safe.

#### Immature Defences

Acting out	Expressing an unconscious wish or impulse through action. The unconscious is lived out in behaviour.
Blocking	Temporarily inhibiting thinking, feelings, and so on.
Somatisation	Changing psychic material into bodily symptoms.
Hypochondriasis	Exaggerating or overemphasising an illness in order to get attention or to avoid reality.

#### Neurotic Defences

Controlling	Attempting to manage or regulate events or objects in the the environment to minimise anxiety and to resolve inner conflicts.
Intellectualisation	Excessively using intellectual processes to avoid expressing feelings.
Rationalisation	Offering rational explanations to justify attitudes, beliefs

or behaviour that may otherwise be unacceptable.

Dissociation      Temporarily disconnecting with a sense of self so as not to deal with reality.

Repression      Withholding from consciousness an idea or feeling.

Mature Defences

Sublimation      Channel instincts and feelings into socially acceptable aims or goals.

Humour      Using comedy to overtly express feelings and thoughts about a situation without personal discomfort. Different from wit which is a form of displacement. That is, it distracts from reality.

Anticipation      Realistically anticipating or planning for future inner discomfort. Goal-directed, careful planning.

Situation	Behaviour	Emotional Reaction	Fuse Behaviour	Bait	Hook	Belief System	Self-monitor
Driver hoots at you.	You shout, make a fist, drive faster.	Anger.	Shouting, Type A behaviour pattern.	Another driver shouts at you.	Who does that person think she or he is to hoot at me?	I have a right to be on the road. I am such a good driver, I wouldn't do that.	Calm down, it's okay to get angry.



## APPENDIX AA

### Lecture, mind-body connection, Session 10

#### SESSION TEN: THE LIVED BODY

Before we start tonight, I would like you to write down a list of physical illnesses that you can remember having in your life.

In the 17<sup>th</sup> century, a philosopher by the name of Descartes, introduced the concept that the mind and the body are separate, that the body is merely a machine, a mechanism, and that the soul lives separately in the body. This Cartesian mind-body split, as it was called, endured into today's modern thinking and has steered the thinking of philosophers and scientists for many centuries. Think for example about modern medicine and how one is often treated for mere bodily symptoms without a connection being made to the deeper, psychological issues that may have caused the illness. This may be part of the busy schedule of practitioners, but how many people connect their physical symptoms to underlying emotional issues? Today it is becoming more accepted that there is a mind-body interface and the Cartesian split is slowly closing as attempts to understand the interface increase.

It is important to consider that what you think is what you set out to discover and one's thinking can cloud or dominate who or what one is. A short story to illustrate:

A man who lived in a country without fruit set out to discover this much heard of and exciting sounding thing called fruit. He carefully followed the map he was given and eventually arrived at an apple orchard. It was springtime and the apple trees were in blossom. He entered into the orchard and sampled the blossoms on a number of trees. While the blossoms were incredibly beautiful, he found them bitter to the taste. He left the orchard deciding that this thing called fruit was not so amazing after all. Because he did not know the difference between spring blossoms and ripe apples, he never realized that he still had not tasted fruit.

(From Patton, 1990, p 9.)

We often go down a path, thinking we have found what we are looking for, but because we do not really know what we are seeking, we may be led to think otherwise.

If you believe that your physical symptoms are purely that, physical symptoms, something your body creates, without any influence from you, then you will continue to believe this and also feel like you have no control over your physical body. I'd like to offer you a different possibility tonight.

I am going to refer to the body as the lived body. That is the body **in** which and **through** which we live. Without a physical body we would be what? Spiritual, a bunch of thoughts? Without thoughts and emotions a pure physical body is, what, just a robot? If

we wish to reach out and grab a glass to drink some water, without an arm, a hand and a mouth, none of this would be possible. Our body helps us to actualise who we are. It helps us to put our thoughts and emotions into action. If the body helps us in this way when we consciously think, what about its task when we are not consciously aware of activity. Remembering about the unconscious mind from previous sessions, even when we are not consciously aware, the unconscious mind is at work. So far in the course I have taught you that all behaviour is meaningful and that it is a signal from your unconscious. I now want to present to you the idea of the body as another form of communication from the unconscious. That is, that there are messages that are played out in the body.

What do you think about the mind-body connection?

I'd like you all to think about the "body" language that we speak: "get it off your chest", "she or he gets up your nose". Let's put a few of these on an overhead.

I'd like you to think about the physical illnesses or symptoms you have suffered in your life and see if you can attach some emotion to them. Perhaps even remember the events around that illness. Were you stressed, did your family move, did you just start school, and so forth?

APPENDIX BBWording, relaxation exercise, lived body after a MI, Session 11

So what I am going to do is to take you through the process of relaxing, like you do normally, the hands, the feet, and so on, but in that state of relaxation I am going to ask you to get in touch with your body in a different way. You might even feel tearful and if you do, that's fine. Use this opportunity, say sorry or say thank you to your body for helping you express something. If you need me, just put your hand up.

Put your arms by your sides. Relax. Close your eyes. Okay. We are going to do the relaxation first. We are going to start with your dominant arm and the other arm together tonight. I want you to raise your arms, bend your elbows and make a fist at the same time. Both arms, raise your arm, bend your elbows and make a fist at the same time. Hold that tension, and now relax your arms, relax arms, let them lie by your side. Compare the difference in your muscles now that you are relaxed. Keep your arms relaxed by your sides. Feel the tension going out of your muscles. We are going to go on to the muscles in your face. I want you to cause tension there by raising your eyebrows, squeezing your eyes, wrinkling your nose and biting your jaw. Raise your eyebrows, squeeze your eyes, wrinkle your nose and bite your jaw. Hold that tension in your face. Hold the tension. Now relax your muscles. Compare your body now that you are relaxed. We are going to move on to the muscles in the neck now. I want you to cause tension there by pushing your neck up against the floor or the wall. I want you to push your tongue up against the roof of your mouth. Push your neck back against the floor, push your tongue up against

the roof of your mouth. Hold the tension. Now relax your muscles. Just allow that tension to go out of your body. Feel your body relax.

We are going to go on to the muscles in the chest, shoulders and your abdomen. I want you to cause tension there by taking in a deep breath, holding it, take a deep breath in now, holding it in, shrug your shoulders and pull in your stomach at the same time. Hold your breath, shrug your shoulders, pull in your stomach at the same time. Hold the tension. Now breathe out through your mouth. Good. Let's do that one again. Take a deep breath in, deep breath in, breathe in through the nose, shrug your shoulders and pull in your stomach. Feel the tension in the muscles, now relax, relax your body. Good. Well done. Compare your muscles now that they are relaxed. That's it, let the tension go. I am going to do the legs one at a time, we will start with the dominant side, calf and foot. I want you to lift your leg, point your toes down and turn your foot inwards. Lift your leg, point your toes, turn your foot inwards. Hold that tension. Now relax your leg, relax it, compare your muscles now that they are relaxed. Feel the difference in your muscles. Let's do that with the other leg now. Lift your leg, point your toes down and turn your foot inwards. Hold the tension, hold the tension, now relax. Relax your body, let the tension go out of your body. (Music.) Let the music relax you. Focus on your breathing. Breathe in, just imagine that tension going out of your body as you breathe out. With every breath that you take in, just feel that tension going out as you breathe out. With each breath just feel yourself relaxing. Clear your mind of all thoughts that you brought in here today. Just listen to the sound of the music. I want your arms to feel heavy by your side, feel your legs becoming heavy. While you are in that state of relaxation I want

you to think about a body part, not your heart or your chest at this point, but any other part of your body that you feel has taken some punishment for you. Maybe your back, maybe your knees, maybe your legs, maybe your fingers from arthritis, even your nose from colds.

Take some time just to focus on that body part and to just allow it to feel the warmth and love that you want to give to your body. Say thank you. Just feel your legs becoming very warm, feel the tingling as the energy runs up your legs from your toes, feel your toes becoming warm. Feel the wonderful light energy, just imagine a colour, a wonderful orange light, as it travels up through your body from the toes, and as it spreads up your feet, through your arches and your ankles, feel it making your feet wonderfully warm. As it warms your feet and the soles of your feet, feel it warming your heart and soul, allow that colour orange to heal you as it travels up your calves. If you have had calf injuries, shin splints, Achilles' tendons, just allow that light to travel through your body and to spread its healing, allow your body to feel itself rejuvenating, almost massage your body at this point with your mind. Gently heal it as the colour moves through your knees, if you have had knee problems, just imagine that colour filtering through those cells, knee cap, beneath the knees, warming those knees, feel the warmth as it travels up now to your thighs, those thighs that carry your body and do such hard work for you. Allow your body to just feel that wonderful colour spreading through your body as it goes to your groin, perhaps you have had experiences that have left you feeling saddened; allow that orange to filter through that part of your body.

Just feel the warmth as it spreads through your body, to the pelvis, perhaps you have had problems with your lower back, coccyx, your buttocks, just feel the warmth as it travels up through your body, through your solar plexus, your navel. If you have had indigestion problems, imagine that orange circulating through your body, just feel your body becoming warm with that glow. Feel that colour spreading through your body. As it gets to your chest, for those of you that had a bypass, imagine that orange colour helping your body to feel loved and cared for. Imagine where you had the op, where those veins from your legs are now helping you to function healthily, just feel that orange spreading through your chest and through the scar tissue. And while we are up at the chest let's think about the heart. Imagine your heart, how you want to envision this is up to you. Maybe you want to imagine holding your heart, soothing it, feel the orange as it spreads through your heart. Imagine the heart pumping, doing its work for you, until it becomes a seat of joy and love for you in your life, just feel that orange in your heart. Whatever the emotion that you are feeling at this point, release it. Just ask your body to let go of the pain that it's been holding for you. Let your body release it. As that beautiful orange colour spreads through to your neck, the part that connects your head and the rest of your body, feel that strength and that lovely flow of energy and warmth, spreading up through your neck and into your face. Feel your whole body tingling with warmth, beautiful bright light. Feel your whole body warm and tingling and surrounded by the wonderful, glorious colour of healing, just feel yourself relaxing. Your eyes are heavy and now just stay with your body now for a moment as it feels the glow, maybe there is another part that you want to go back to on your own now, maybe you want to say something to it, thank you or I'm going to take care of you. I want you to imagine yourselves surrounded

by beautiful white light, healing white light. In that wonderful state you are feeling strong and relaxed.

I want you to just imagine yourself sitting on the beach. (Music.) Feel the sand between your toes, feel the sun on your body, allow that beautiful warm sunlight to just soothe your body, give you energy. Thank your body for looking after you, for being with you, doing all the things that you push it to do. Imagine the wind on your face, breeze. I want you to walk along that beach now and find a rock pool and I want you to add your biggest stress, throw it down into that rock pool. Watch it sink to the bottom. It doesn't go away but it becomes manageable. It's your perception about things that make them too big for you. I want you to walk away from that pond, feel the lightness in your step.

I am going to count very slowly, 1, I am going to count up to 10, take as much time as you need to come out of a state where perhaps you have been feeling very relaxed, 2, feel your body relax, feel it becoming slightly lighter, 3, 4, 5, I want you to hear my voice clearer, 6, I want you to remember where you were when we started this exercise, 7, 8, feel your body becoming lighter and be more aware of your surroundings, 9, and at 10 you can wiggle your fingers and toes, wiggle your fingers and your toes, wiggle your fingers and your toes, wiggle your fingers and your toes, and when you are ready you can open your eyes and sit up in your own time, but very gently because we have done a very deep relaxation tonight, hopefully, don't get up too quickly.

## APPENDIX CC

**THE FREWEN CARDIAC REHABILITATION PSYCHOLOGICAL****ASSESSMENT INTERVIEW****PERSONAL PARTICULARS**

NAME CODE: \_\_\_\_\_ DATE: \_\_\_\_\_

AGE: \_\_\_\_\_ D.O.B.: \_\_\_\_\_

EMPLOYER: \_\_\_\_\_

JOB DESCRIPTION: \_\_\_\_\_  
\_\_\_\_\_**MEDICAL PARTICULARS**

G.P.: \_\_\_\_\_ SPECIALIST: \_\_\_\_\_

**PRESENTING HEALTH PROBLEM:** (e.g., M.I., CABG, cholesterol level, and so on.  
Include dates.)**HISTORY:** (Including symptoms, events, activities leading up to health problem)

MEDICATION:

CAUSES: (Individual's understanding hereof, e.g., hereditary, lifestyle, stress, and so on.)

Hereditary:

Alcohol:

Diet:

Exercise:

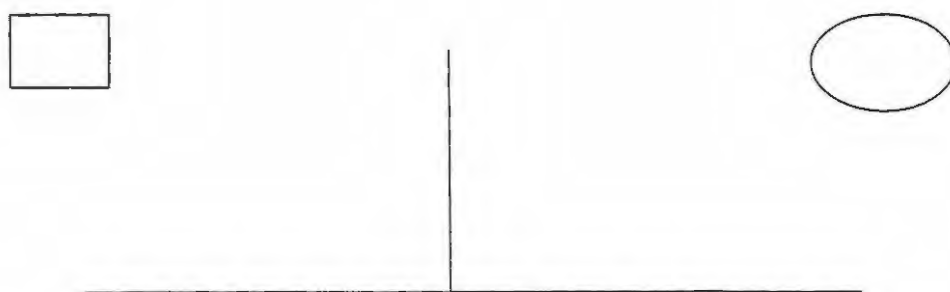
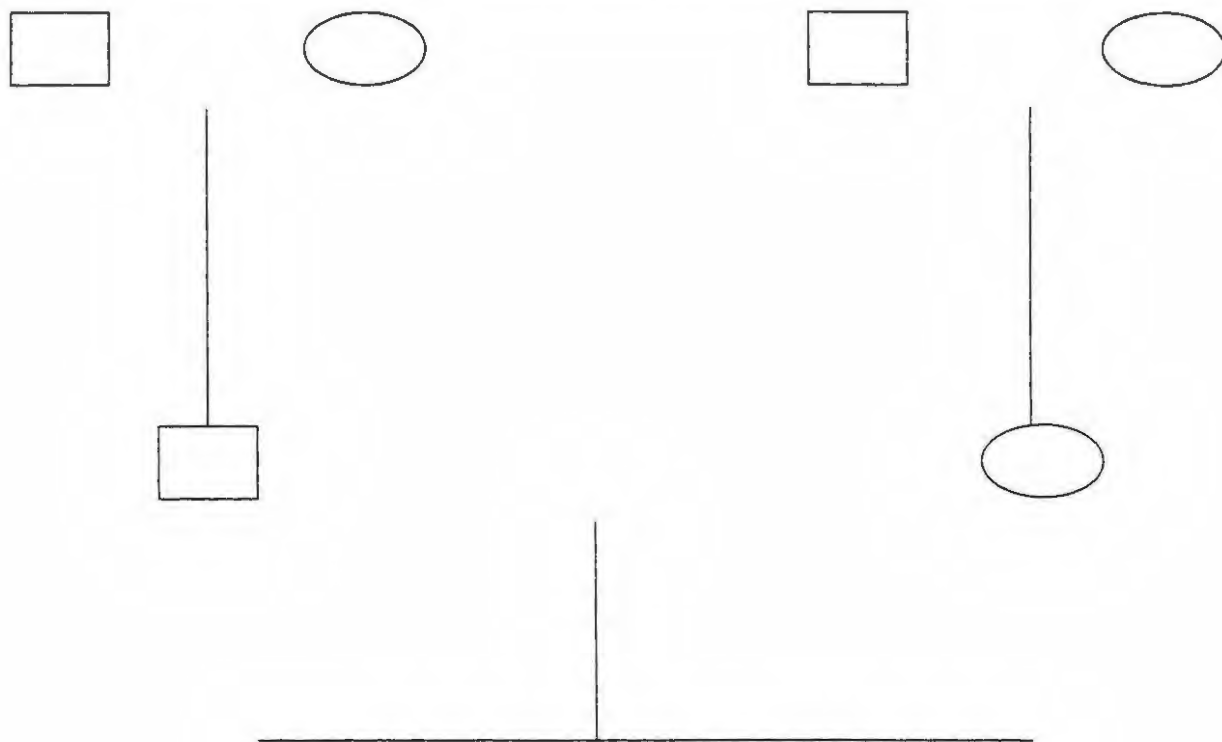
Smoking:

Stress:

Relationships:

GENOGRAM

(Note health problems, important dates, events, other close family members, and so on)



**PSYCHOLOGICAL ASSESSMENT**

(Include defences such as denial, rationalisation, splitting, projection, etc., familial support, health behaviour, acceptance of health problem, motivation, and so forth.)

**COMMENTS/RECOMMENDATIONS:** (Include an assessment of the individual's denial, acceptance, stress levels, support, etc, as well as recommendations for rehabilitation.)

**ASSESSED BY:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

APPENDIX DD

NAME _____ DATE _____		Below is a list of words that describe feelings people have. Please read each one carefully. Then fill in ONE space under the answer to the right which best describes HOW YOU HAVE BEEN FEELING DURING THE PAST WEEK INCLUDING TODAY.		IDENTIFICATION														
				1	2	3	4	5	6	7	8	9						
The numbers refer to these phrases. 0=Not at all 1=A little 2=Moderately 3=Quite a bit 4=Extremely																		
T	1. Friendly	0	1	2	3	4	21. Hopeless	0	1	2	3	4	45. Desperate	0	1	2	3	4
	2. Tense	0	1	2	3	4	22. Relaxed	0	1	2	3	4	46. Sluggish	0	1	2	3	4
	3. Angry	0	1	2	3	4	23. Unworthy	0	1	2	3	4	47. Rebellious	0	1	2	3	4
	4. Worn out	0	1	2	3	4	24. Spiteful	0	1	2	3	4	48. Helpless	0	1	2	3	4
D	5. Unhappy	0	1	2	3	4	25. Sympathetic	0	1	2	3	4	49. Weary	0	1	2	3	4
	6. Clear-headed	0	1	2	3	4	26. Uneasy	0	1	2	3	4	50. Bewildered	0	1	2	3	4
A	7. Lively	0	1	2	3	4	27. Restless	0	1	2	3	4	51. Alert	0	1	2	3	4
	8. Confused	0	1	2	3	4	28. Unable to concentrate	0	1	2	3	4	52. Deceived	0	1	2	3	4
V	9. Sorry for things done	0	1	2	3	4	29. Fatigued	0	1	2	3	4	53. Furious	0	1	2	3	4
	10. Shaky	0	1	2	3	4	30. Helpful	0	1	2	3	4	54. Efficient	0	1	2	3	4
F	11. Listless	0	1	2	3	4	31. Annoyed	0	1	2	3	4	55. Trusting	0	1	2	3	4
	12. Peeved	0	1	2	3	4	32. Discouraged	0	1	2	3	4	56. Full of pep	0	1	2	3	4
C	13. Considerate	0	1	2	3	4	33. Resentful	0	1	2	3	4	57. Bad-tempered	0	1	2	3	4
	14. Sad	0	1	2	3	4	34. Nervous	0	1	2	3	4	58. Worthless	0	1	2	3	4
	15. Active	0	1	2	3	4	35. Lonely	0	1	2	3	4	59. Forgetful	0	1	2	3	4
	16. On edge	0	1	2	3	4	36. Miserable	0	1	2	3	4	60. Carefree	0	1	2	3	4
	17. Grouchy	0	1	2	3	4	37. Muddled	0	1	2	3	4	61. Terrified	0	1	2	3	4
	18. Blue	0	1	2	3	4	38. Cheerful	0	1	2	3	4	62. Guilty	0	1	2	3	4
	19. Energetic	0	1	2	3	4	39. Bitter	0	1	2	3	4	63. Vigorous	0	1	2	3	4
	20. Panicky	0	1	2	3	4	40. Exhausted	0	1	2	3	4	64. Uncertain about things	0	1	2	3	4
							41. Anxious	0	1	2	3	4	65. Bushed	0	1	2	3	4
							42. Ready to fight	0	1	2	3	4	MAKE SURE YOU HAVE ANSWERED EVERY ITEM.					
							43. Good natured	0	1	2	3	4						
							44. Gloomy	0	1	2	3	4						

NCS Data: Dallas, TX 1960, 6-7



APPENDIX E E

POMS PROFILE SHEET

MALE (OP)

Name: \_\_\_\_\_ Date: \_\_\_\_\_

T Score	FACTOR						T Score
	Ten	Dep	Ang	Vig	Fat	Con	
80+			44.8	31.2			80+
79			43				79
78			42	30			78
77			41	29			77
76			40				76
75		59.0	39	28			75
74		58	38	27	28		74
73		56.7	37			28	73
72		55	36	26	27	27	72
71		53.4	35	25	26		71
70	36	52	34		25	26	70
69	35	50.1	33	24		25	69
68	34	49	32	23	24		68
67	33	47.8	31		23	24	67
66		46	30	22	22	23	66
65	32	44.5	29	21			65
64	31	43	28		21	22	64
63	30	41.2	27	20	20	21	63
62	29	40	26	19	19		62
61	28	38.9	25		18	20	61
60	27	37	24	18		19	60
59	26	35.6	23	17	17		59
58	25	34	22		16	18	58
57		32.3	21	16	15	17	57
56	24	31	20	15			56
55	23	30	19		14	16	55
54	22	28.9	18	14	13	15	54
53	21	27	17	13	12		53
52	20	25.6	16			14	52
51	19	24	15	12	11	13	51
50	18	22.3	14	11	10		50
49		21	12.3		9	12	49
48	17	19.0	11	10		11	48
47	16	18	10	9	8		47
46	15	16.7	9		7	10	46
45	14	15	8	8	6	9	45
44	13	13.4	7	7			44
43	12	12	6		5	8	43
42	11	10.1	5	6	4	7	42
41		9	4	5	3		41
40	10	7.8	3			6	40
39	9	6	2	4	2	5	39
38	8	4.5	1	3	1		38
37	7	3	0		0	4	37
36	6	1.2		2		3	36
35	5	0		1		2	35
34	4						34
33				0		1	33
32	3					0	32
31	2						31
30	0.1						30
T Score	_____	_____	_____	_____	_____	_____	T Score
Raw Score	_____	_____	_____	_____	_____	_____	Raw Score
	Ten	Dep	Ang	Vig	Fat	Con	

# POMS PROFILE SHEET

FEMALE (OP)

Name: \_\_\_\_\_ Date: \_\_\_\_\_

T Score	FACTOR						T Score
	Ten	Dep	Ang	Vig	Fat	Con	
80+				28-2			80+
79			48				79
78			47	27			78
77			46	26			77
76			45				76
75			44	25			75
74			42-3				74
73			41	24			73
72			40	23		28	72
71			39				71
70		60	38	22		27	70
69		58-9	37	21		26	69
68		56-7	36		28		68
67	36	55	34-5	20	27	25	67
66	35	53-4	33	19	26	24	66
65	34	52	32		25		65
64	33	50-1	31	18		23	64
63	32	48-9	30		24	22	63
62	31	47	29	17	23		62
61	30	45-6	27-8	16	22	21	61
60		44	26		21	20	60
59	29	42-3	25	15	20		59
58	28	40-1	24	14		19	58
57	27	39	23		19	18	57
56	26	37-8	22	13	18		56
55	25	36	21		17	17	55
54	24	34-5	19-0	12	16	16	54
53	23	32-3	18	11			53
52	22	31	17		15	15	52
51		29-0	16	10	14	14	51
50	21	28	15	9	13		50
49	20	26-7	14		12	13	49
48	19	24-5	13	8	11	12	48
47	18	23	11-2				47
46	17	21-2	10	7	10	11	46
45	16	20	9	6	9	10	45
44	15	18-9	8		8		44
43		17	7	5	7	9	43
42	14	15-6	6	4	6	8	42
41	13	13-4	5				41
40	12	12	3-4	3	5	7	40
39	11	10-1	2		4	6	39
38	10	9	1	2	3		38
37	9	7-8	0	1	2	5	37
36	8	5-6				4	36
35	7	4		0	1		35
34		2-3			0	3	34
33	6	1				2	33
32	5	0				1	32
31	4						31
30	0-3					0	30
T Score	_____	_____	_____	_____	_____	_____	T Score
Raw Score	_____	_____	_____	_____	_____	_____	Raw Score
	Ten	Dep	Ang	Vig	Fat	Con	



PDM 040

COPYRIGHT © 1971 by EDUCATIONAL & INDUSTRIAL TESTING SERVICE, SAN DIEGO, CALIFORNIA 92107  
REPRODUCTION OF THIS FORM BY ANY MEANS STRICTLY PROHIBITED

APPENDIX FF

Name: \_\_\_\_\_ Date: \_\_\_\_\_

T Score	FACTOR						T Score
	Ten	Dep	Ang	Vig	Fat	Con	
80+	35.6	47+	32+			28	80+
79	34	46				27	79
78		45	31				78
77	33	44	30		28	26	77
76	32	43	29	32			76
75		42			27	25	75
74	31	41	28	31			74
73	30	40	27	30	26	24	73
72	29	38.9	26		25	23	72
71		37		29			71
70	28	36	25	28	24	22	70
69	27	35	24		23		69
68		34	23	27		21	68
67	26	33			22		67
66	25	32	22	26	21	20	66
65	24	31	21	25			65
64		30	20		20	19	64
63	23	28.9		24	19	18	63
62	22	27	19	<u>23</u>			62
61		26	18		18	17	61
60	21	25	17	22	17		60
59	20	24		21		16	59
58	19	23	16	<u>20</u>	16		58
57		22	15	19	15	15	57
56	18	21	14	<u>18</u>			56
55	17	20		17	14	14	55
54	16	19	13	16	13		54
53		17.8	12	15		13	53
52	15	16	11	14	12	12	52
51	14	15	10	13	11		51
50		14		12		11	50
49	13	13	9	11	10		49
48	12	12	8	10	9	10	48
47	11	11	7	9			47
46		10		8	8	9	46
45	10	9	<u>6</u>	7	7		45
44		7.8	<u>5</u>	6		8	44
43	9	<u>5</u>	<u>5</u>	5	<u>6</u>	7	43
42	8	5	4	4			42
41	7	4	3	3	6	6	41
40	<u>3</u>	3	2	2	4		40
39	<u>2</u>	2	<u>1</u>	1	3	5	39
38	5	<u>1</u>		8	<u>2</u>	<u>4</u>	38
37	4	0	0	7	2	4	37
36							36
35	<u>3</u>			6	1	3	35
34	2				0		34
33	1			5		2	33
32				4		<u>1</u>	32
31	0						31
30				3		0	30

Score	_____	_____	_____	_____	_____	_____	T Score
Raw Score	_____	_____	_____	_____	_____	_____	Raw Score
	Ten	Dep	Ang	Vig	Fat	Con	

## APPENDIX GG

SPOUSE RATING SCALE

This *Spouse Rating Scale* asks questions about aspects of behaviour that you may notice about your spouse, partner or significant other.

Please use the following rating scale to answer each question:

NEVER	SOMETIMES	ALWAYS
0	1	2

For each question, choose the answer that is true for you, and circle your response. Mark only one answer for each question.

Code name of participant on the programme:

\_\_\_\_\_

Spouse, or significant other's first name:

\_\_\_\_\_

Date:

\_\_\_\_\_

SPOUSE RATING SCALE

Please rate your spouse, partner, or significant other's behaviour **for a typical week in the past month** on each of the following questions. Please circle your response on the scales given for each question.

	NEVER	SOMETIMES	ALWAYS
	0	1	2
1. Eats breakfast every morning.	0	1	2
2. Eats breakfast at a table every morning.	0	1	2
3. Eats a mid-morning snack.	0	1	2
4. Eats lunch every day.	0	1	2
5. Eats an afternoon snack every day.	0	1	2
6. Snacks throughout the day.	0	1	2
7. Snacks on sticky candy, sweets, or biscuits.	0	1	2
8. Eats a variety of foods each day, such as fruits and vegetables, whole grain breads and cereals, lean meats, dairy products, nuts and seeds.	0	1	2
9. Limits daily intake of fat, saturated fat and cholesterol.	0	1	2
10. Sits at a table during meal times.	0	1	2
11. Eats dinner with the rest of the family.	0	1	2
12. Usually finishes a meal before the rest of the family.	0	1	2
13. Reads while eating.	0	1	2
14. Watches TV while eating.	0	1	2
15. Relaxes after each meal by watching TV.	0	1	2
16. Relaxes after each meal by listening to music.	0	1	2

	NEVER	SOMETIMES	ALWAYS
	0	1	2
17. Consumes more than two glasses of alcohol per night.	0	1	2
18. Consumes alcohol on social occasions only.	0	1	2
19. Exercises a minimum of twice a week (can include walking).	0	1	2
20. Wears a seat belt while driving a car.	0	1	2
21. Is able to be a passenger in a car without giving orders or directions.	0	1	2
22. Shouts at other drivers on the road.	0	1	2
23. Is an impatient driver.	0	1	2
24. Is a smoker.	0	1	2
25. Is able to express feelings.	0	1	2
26. Is able to recognise and prepare for stressful events.	0	1	2
27. Finds the time for a regular hair cut.	0	1	2
28. Is always punctual and arrives on time for appointments.	0	1	2
29. Is impatient to wait in line at a restaurant.	0	1	2
30. Is competitive in activities that require interaction with others.	0	1	2
31. Likes to win	0	1	2
32. Does things in a hurry.	0	1	2
33. Has a temper.	0	1	2
34. Always meets deadlines.	0	1	2
35. Likes to be the leader in a group.	0	1	2
36. Is a good listener.	0	1	2

	NEVER	SOMETIMES	ALWAYS
	0	1	2
37. Is able to communicate his or her feelings.	0	1	2
38. Is anxious.	0	1	2
39. Handles most stressful situations in a calm manner.	0	1	2
40. Has trouble getting out of bed in the morning.	0	1	2
41. Tends to be irritated easily.	0	1	2
42. Is tearful.	0	1	2
43. Is cheerful and happy.	0	1	2
44. Is a restless sleeper.	0	1	2
45. Wakes up in the middle of the night.	0	1	2
46. Falls asleep easily.	0	1	2
47. Is moody.	0	1	2
48. Is affectionate.	0	1	2
49. Walks quickly.	0	1	2
50. Asks other family members about their day.	0	1	2
51. Takes his or her work too seriously.	0	1	2
52. Gives more effort than is required when completing a chore or job.	0	1	2
53. Takes on unnecessary responsibilities.	0	1	2
54. Works after hours on work projects.	0	1	2
55. Works better under pressure.	0	1	2

	NEVER	SOMETIMES	ALWAYS
	0	1	2
56. Prefers working to a deadline.	0	1	2
57. Has difficulty sitting and doing nothing.	0	1	2
58. Sets high standards for him or herself.	0	1	2
59. Is self-critical.	0	1	2
60. Helps with household chores such as cooking or washing dishes.	0	1	2
61. Likes to do things his or her way.	0	1	2
62. Is often unaware of his or her tendency to be impatient.	0	1	2
63. Is easily frustrated.	0	1	2
64. Eats rapidly.	0	1	2
65. Is a perfectionist.	0	1	2
66. Holds a position of authority on a club, sports or any other committee.	0	1	2
67. Writes lists of jobs that have to be done.	0	1	2
68. His or her everyday life seems to be filled with problems or challenges that need solving.	0	1	2
69. His or her everyday life seems to follow a predictable routine.	0	1	2
70. Always has things to do.	0	1	2
71. Does more than one activity at a time, e.g., eats and reads, or figures out problems while driving.	0	1	2
72. Is able to listen to another person speaking without interrupting	0	1	2

## APPENDIX HH

Categories of questions for the Spouse Rating Scale

The questions which tapped into the components of the TABP are outlined. Questions that are highlighted and underlined were found to be most predictive of the TABP in the JAS.

Health Behaviour

Questions 1, 3, 4, 5, 7, 8, 9, 17, 18, 19, 20, 24 (total 12) tapped into this concept. Questions 7, 8, 9, 17, 19, 20 and 24 were taken from a health behaviour assessment scale used in the researcher's Master's dissertation (Frewen, 1991). The rest of the questions are based on findings from the literature on TABP. The wording for the questions is as follows:

1. Eats breakfast every morning.
3. Eats a mid-morning snack.
4. Eats lunch every day.
5. Eats an afternoon snack every day.
7. Snacks on sticky candy, sweets, or biscuits.
8. Eats a variety of foods each day, such as fruits and vegetables, whole grain breads and cereals, lean meats, dairy products, nuts and seeds.
9. Limits daily intake of fat, saturated fat and cholesterol.
17. Consumes more than two glasses of alcohol per night.
18. Consumes alcohol on social occasions only.

19. Exercises a minimum of twice a week (can include walking).
20. Wears a seat belt while driving a car.
24. Is a smoker.

#### Emotion/Mood

Questions 6, 25, 37, 38, 40, 42, 43, 44, 45, 46, 47, 48 (total 12) tapped into this concept. Question 6 and 25 were taken from the assessment scale used in Frewen (1991). The rest of the questions are based on findings from the literature on TABP. The wording for the questions is as follows:

6. Snacks throughout the day.
25. Is able to express feelings.
37. Is able to communicate his or her feelings.
38. Is anxious.
40. Has trouble getting out of bed in the morning.
42. Is tearful.
43. Is cheerful and happy.
44. Is a restless sleeper.
45. Wakes up in the middle of the night.
46. Falls asleep easily.
47. Is moody.
48. Is affectionate.

#### Speed-Impatience

Questions 2, 10, 11, 12, 13, 14, 15, 16, 22, 23, 26, 27, 28, 29, 32, 33, 36, 39, 41, 49, 62, 63, 64, 67, 71, 72 (total of 26) addressed this concept. Question 71 in the SRS taps into Factor S rather than Factor J as used in the JAS. Questions 12, 27, 29, 33, 41, 63, 71 and 72 were adapted from the JAS and Question 26 was taken from the healthy assessment scale used in Frewen (1991). The highlighted and underlined questions indicate key items found by the JAS to define Factor S in the TABP. The rest of the questions are based on findings from the literature on TABP. The wording for the questions is as follows:

2. Eats breakfast at a table every morning.
10. Sits at a table during meal times.
11. Eats dinner with the rest of the family.
12. Usually finishes a meal before the rest of the family.
13. Reads while eating.
14. Watches TV while eating.
15. Relaxes after each meal by watching TV.
16. Relaxes after each meal by listening to music.
22. Shouts at other drivers on the road.
23. Is an impatient driver.
26. Is able to recognise and prepare for stressful events.
27. Finds the time for a regular hair cut.
28. Is always punctual and arrives on time for appointments.
29. Is impatient to wait in line at a restaurant.
32. Does things in a hurry

33. Has a temper.
36. Is a good listener.
39. Handles most stressful situations in a calm manner.
41. Tends to be irritated easily.
49. Walks quickly.
62. Is often unaware of his or her tendency to be impatient.
63. Is easily frustrated.
64. Eats rapidly.
67. Writes lists of jobs that have to be done.
71. Does more than one activity at a time, for example, eats and reads, or figures out problems while driving.
72. Is able to listen to another person speaking without interrupting.

Unfortunately, during the final printing of the SRS, Question 32 was left off in error. Copies of the SRS completed by participants do not reflect this question. This was only picked up by the researcher when scoring the first set of questionnaires. The omission of this question therefore had to be maintained for all administrations of the SRS. The final scoring took this omission into account.

#### Hard-Driving/Competitive

Questions 21, 30, 31, 34, 35, 50, 51, 52, 53, 55, 57, 58, 59, 60, 61, 65, 66 (total 17) address this concept. Question 51 was adapted from the JAS. The highlighted and underlined questions indicate key items found by the JAS to define Factor H in the

TABP. The rest of the questions are based on findings from the literature on TABP. The wording for the questions is as follows:

21. Wears a seat belt while driving a car.
30. Is competitive in activities that require interaction with others.
31. Likes to win.
34. Always meets deadlines.
35. Likes to be the leader in a group.
50. Asks other family members about their day.
51. Takes his or her work too seriously.
52. Gives more effort than is required when completing a chore or job.
53. Takes on unnecessary responsibilities.
55. Works better under pressure.
57. Has difficulty sitting and doing nothing.
58. Sets high standards for him or herself.
59. Is self-critical.
60. Helps with household chores such as cooking or washing dishes.
61. Likes to do things his or her way.
65. Is a perfectionist.
66. Holds a position of authority on a club, sports or any other committee.

#### Job Involvement

Questions 54, 56, 68, 69, 70 (total 5) deal with this concept. The highlighted and underlined questions indicate key items found by the JAS to define Factor J in the TABP.

Questions 54, 68, 69 and 70 were adapted from the JAS. The rest of the questions are based on findings from the literature on TABP. The wording for the questions is as follows:

54. Works after hours on work projects.

56. Prefers working to a deadline.

68. His or her everyday life seems to be filled with problems or challenges that need solving.

69. His or her everyday life seems to follow a predictable routine.

70. Always has things to do.

### Scoring

On the questionnaire, respondents were asked to circle either never = 0, sometimes = 1 and always = 2. The final score for each of the five components assessed (health behaviour, emotions, speed-impatience, hard-driving competitive and job involvement) needed to reflect a range of bad, moderate and good. In order to achieve this, some of the scores had to be reversed. For example, Question 6 “snacks throughout the day” is not a good sign of emotional coping. If the participant always snacked, the spouse would score a 2, and if not reversed, would indicate a false positive. Questions 6, 7, 12, 13, 14, 17, 22, 23, 24, 29, 30, 31, 32, 33, 34, 35, 38, 40, 41, 42, 44, 45, 47, 49, 51, 52, 53, 54, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 66, 68, 69, 70 and 71 were reversed (see Appendix EE for wording for these questions). The total for Factor S is adjusted by one to accommodate for the missing question (32).

The total scores in each range vary because some concepts were assessed by more questions than were others.

Range of scores for SRS components

COMPONENT	BAD	MODERATE	GOOD
Health Behaviour	0	12	24
Emotions/Mood	0	12	24
Speed-Impatience	0	26 (-1)	52 (-1)
Hard-Driving Comp	0	17	34
Job Involvement	0	5	5

APPENDIX II  
List of SRS questions reversed for scoring purposes

6. Snacks throughout the day.
7. Snacks on sticky candy, sweets and biscuits.
12. Usually finishes a meal before the rest of the family.
13. Reads while eating.
14. Watches television while eating
17. Consumes more than two glasses of alcohol per night.
22. Shouts at other drivers on the road.
23. Is an impatient driver.
24. Is a smoker.
29. Is impatient to wait in line at a restaurant.
30. Is competitive in activities that require interaction with others.
31. Likes to win.
32. Does things in a hurry. (Left off of questionnaire in error).
33. Has a temper.
34. Always meets deadlines.
35. Likes to be the leader in a group.
38. Is anxious.
40. Has trouble getting out of bed in the morning.
41. Tends to be irritated easily.
42. Is tearful.
44. Is a restless sleeper.
45. Wakes up in the middle of the night.
47. Is moody.
49. Walks quickly.
51. Takes his or her work too seriously.
52. Gives more effort than is required when completing a chore or job.
53. Takes on unnecessary responsibilities.
54. Works after hours on work projects.
55. Works better under pressure.
56. Prefers working to a deadline.
57. Has difficulty sitting and doing nothing.
58. Sets high standards for him or herself.
59. Is self-critical.
61. Likes to do things his or her way.
62. Is often unaware of his or her tendency to be impatient.
63. Is easily frustrated.
64. Eats rapidly.
65. Is a perfectionist.
66. Holds a position of authority on a club, sports or any other committee.
68. His or her everyday life seems to be filled with problems or challenges that need solving.
69. His or her everyday life seems to follow a predictable routine.
70. Always has things to do.
71. Does more than one activity at a time, for example, eats and reads, or figures out problems while driving.

## APPENDIX JJ

Example of a weekly feedback sheetSESSION SEVEN FEEDBACK SHEET

Code Name: \_\_\_\_\_ Date: \_\_\_\_\_

You have just completed session seven for which the main goals were:

To introduce the concepts of self and other, the conscious and unconscious and the connection between emotions and experiences.

To relate the story of Narcissus.

To introduce the concept of the world as a mirror experience.

To introduce the concept of defence mechanisms.

To integrate this theory with concepts learnt so far on the "Self-Monitor", the "Bombs and Fuses" and the "Bait and Hook".

To do a brief meditation exercise to visualise the "inner core" and how you have protected it.

To briefly work in pairs to relate how you visualised your "inner core". Use "I feel..." messages and listen with empathy.

To introduce the homework exercise which is to take note of reactions to situations in the coming week.

To experience a 20-minute relaxation and visualisation session.

In light of these main goals, please provide feedback about the session by responding to each of the following sections.

PART 1: Feedback about the content of the session.

Please rate the extent to which you gained the following skills and or understanding in today's group session. Please refer only to this session. Keep in mind that not all of these skills can be gained in any one session. Please circle your response to each question.

1. How clearly did the researcher present the concept of self and other?

Very clearly		Somewhat clearly		Not clearly at all
4	3	2	1	0

2. How clearly did the researcher present the concept of the conscious and the unconscious?

Very clearly		Somewhat learly		Not clearly at all
4	3	2	1	0

3. How clearly did the researcher present the concept of the link between emotions and experiences?

Very clearly 4	3	Somewhat clearly 2	1	Not clearly at all 0
----------------------	---	--------------------------	---	----------------------------

4. How clearly did the researcher present the concept of narcissism?

Very clearly 4	3	Somewhat clearly 2	1	Not clearly at all 0
----------------------	---	--------------------------	---	----------------------------

5. How clearly did the researcher present the concept of the world as a mirror?

Very clearly 4	3	Somewhat clearly 2	1	Not clearly at all 0
----------------------	---	--------------------------	---	----------------------------

6. How clearly did the researcher present the concept of defence mechanisms?

Very clearly 4	3	Somewhat clearly 2	1	Not clearly at all 0
----------------------	---	--------------------------	---	----------------------------

7. How satisfied are you with the researcher's presentation of these topics?

Very satisfied 4	3	Somewhat satisfied 2	1	Not at all satisfied 0
------------------------	---	----------------------------	---	------------------------------

8. How well do you understand the concept of narcissism?

Very well 4	3	Somewhat 2	1	Not at all 0
----------------	---	---------------	---	-----------------

9. How easily were you able to visualise your "inner core"?

Very easily 4	3	Somewhat easily 2	1	Not at all easily 0
---------------------	---	-------------------------	---	---------------------------

10. How easily were you able to identify ways in which you protect your “inner core”?

Very easily		Somewhat easily		Not at all easily
4	3	2	1	0

11. How much benefit do you think you derived from working with another participant on this exercise?

A lot		A bit		Not at all
4	3	2	1	0

12. How much did you enjoy working with another participant?

A lot		A bit		Not at all
4	3	2	1	0

13. How well were you able to use “I feel... messages” and listen with empathy?

Very well		Somewhat		Not at all
4	3	2	1	0

14. How easily were you able to listen to your partner without giving advice, reassuring or giving testimonials of your own?

Easily		Somewhat easily		Not easily at all
4	3	2	1	0

15. Do you have a clear understanding of the homework exercises which is to take note of your reactions to situations in the coming week?

Yes		A little		Not at all
4	3	2	1	0

16. How easily were you able to follow the meditation exercise?

Very easily		Somewhat easily		Not at all easily
4	3	2	1	0

17. How easily were you able to follow the relaxation exercise?

Very easily		Somewhat easily		Not at all easily
4	3	2	1	0

18. How much were you able to relax?

A lot		A little		Not at all
4	3	2	1	0

19. How easily were you able to follow the visualisation exercise?

Very easily		Somewhat easily		Not at all easily
4	3	2	1	0

**PART II: Feedback about the homework assignment on listening with empathy from session six**

In the following section, please rate your experience of the homework assignment. Please circle your response.

1. How helpful was the exercise on listening with empathy?

Very helpful		Somewhat helpful		Not at all helpful
4	3	2	1	0

2. How helpful was the homework assignment in increasing your awareness of how you listen to others?

Very helpful		Somewhat helpful		Not at all helpful
4	3	2	1	0

3. Were you able to make time to carry out the homework assignment?

Yes		No
2		0

**PART III: Feedback about the group experience.**

In the following section, please could you rate how you felt about the group experience. Please circle your response.

1. How satisfied are you with today's session?

Very satisfied		Somewhat satisfied		Not at all satisfied
4	3	2	1	0

2. How would you rate the level of support received from the rest of the group?

A lot		Some		None at all
4	3	2	1	0

3. How comfortable did you feel about sharing your experiences with the group?

Very comfortable		Somewhat comfortable		Not at all comfortable
4	3	2	1	0

4. Did you feel that you had the freedom to convey your experiences to the group?

Yes		A little		Not at all
4	3	2	1	0

5. Did everybody have an equal opportunity to speak out about their problem?

Yes		A little		Not at all
4	3	2	1	0

6. Did you feel that you could trust the rest of the group members?

Yes		A little		Not at all
4	3	2	1	0

---

**PART IV:** Please rate how you experienced the facilitator (i.e., the person who conducted the group discussion session.)

1. How focussed was the facilitator?

Very focused		Somewhat focused		Not at all focused
4	3	2	1	0

2. How well did the facilitator understand your problem?

Very well		A little		Not at all
4	3	2	1	0

3. How sympathetic and caring was the facilitator?

Very sympathetic and caring		Somewhat		Not at all
4	3	2	1	0

4. How sure was the facilitator of what s/he was doing?

Very sure		Somewhat sure		Not at all sure
4	3	2	1	0

5. How aloof was the facilitator?

Very aloof		Somewhat aloof		Not at all aloof
4	3	2	1	0

6. How friendly was the facilitator?

Very friendly		Somewhat friendly		Not at all friendly
4	3	2	1	0

7. How supportive was the facilitator?

Very supportive		Somewhat supportive		Not at all supportive
4	3	2	1	0

8. How encouraging was the facilitator?

Very encouraging		Somewhat encouraging		Not at all encouraging
4	3	2	1	0

9. How interested and involved was the facilitator?

Very		Somewhat		Not at all
4	3	2	1	0

---

Please describe the most outstanding aspect of today's session:

Please mention any interests or concerns you would like to share. (Please write on the other side of the page if this space is inadequate.)



## APPENDIX LL

Session Two summary table of feedback scores

	4=Maximum 0=Minimum	AvR	BC	EN	HP	JC	NH	LR	RB	UL
	<b>Content</b>		Abs							
1	How clearly was the concept of the TABP presented?	4		4	4	2	-	4	4	4
2	How satisfied are you with the presentation?	4		4	3	3	-	4	4	4
3	How much of an understanding do you have of the TABP?	3		2	3	2	-	3	4	4
4	How well do you understand the Self-Monitor?	4		1	2	1	2	4	4	4
5	How well do you understand the Bombs & Fuses?	4		2	2	1	3	4	4	4
6	How important is the Self-Monitor for u/std TABP?	4		4	2	3	4	4	4	4
7	How important are the Bombs & Fuses for u/std TABP?	4		3	1	3	4	4	4	4
8	In light of the lecture do you display the TABP?	4		1	4	3	4	4	2	2
9	How helpful was the discussion on the TABP?	2		4	2	3	3	3	3	2
10	How well do you understand the homework?	4		1	2	2	3	4	4	4
11	How easily did you follow the relaxation?	4		4	4	3	4	4	2	4
12	How much did you relax?	3		3	3	2	3	3	2	3
	<b>Group</b>									
1	How satisfied are you with today's session?	3		4	3	2	4	3	3	4
2	How would you rate the level of support from the rest of the group?	4		4	2	3	3	4	4	4
3	How comfortable were you with sharing your experiences with the group?	3		1	2	2	4	3	4	2
4	Did you feel you had the freedom to convey your experiences with the group?	4		1	3	4	3	4	4	4
5	Did everybody have an equal opportunity to speak out about their problem?	4		4	2	4	4	4	4	4
6	Did you feel you could trust others in the group?	3		3	3	3	4	4	3	3
	<b>Facilitator 2=Very much 0=Not at all</b>									
1	How distracted was the facilitator?	0		0	0	1	0	0	0	0
2	Did she or he understand your problem?	2		2	2	1	2	2	2	2
3	Was she or he sympathetic and caring?	2		1	2	1	2	2	2	2
4	How unsure of what she or he was doing?	0		0	0	0	0	0	0	0
5	Was she or he a bit aloof and unfriendly?	0		1	0	0	0	0	0	0
6	How supportive and encouraging?	2		2	2	2	0	2	2	2
7	Was she or he interested and involved?	2		2	2	2	2	2	2	2

## APPENDIX MM

Session Three summary table of feedback scores

	4=Maximum 0=Minimum	AvR	BC	EN	HP	JC	LR	RB	UL
	<b>Content</b>								
1	How clearly was the concept of stress & stress response presented?	4	4	4	3	4	4	4	4
2	How satisfied are you with the presentation?	4	4	4	3	3	4	4	4
3	How much do you now understand stress and the stress response?	4	2	3	2	3	3	4	4
4	How well do you now understand time urgency?	4	4	3	2	3	4	4	3
5	Rating of importance of time urgency?	2	3	3	3	4	4	3	4
6	How helpful was the group discussion re stress and the stress response?	2	2	4	2	3	3	2	2
7	How helpful was the group discussion re your time urgency?	2	2	4	2	2	3	3	2
8	How helpful was the discussion re previous homework?	2	2	4	2	2	0	1	0
9	How clearly do you understand today's homework?	4	2	4	3	3	4	4	4
10	How easily did you follow the relaxation?	4	3	4	3	4	4	2	4
11	How much did you relax?	4	2	4	3	3	3	2	3
	<b>Group</b>								
1	How satisfied are you with today's session?	2	2	4	2	2	2	3	2
2	How would you rate the level of support from the rest of the group?	2	3	3	2	2	2	3	3
3	How comfortable were you with sharing your experiences with the group?	0	2	4	2	3	3	3	2
4	Did you feel you had the freedom to convey your experiences with the group?	4	3	4	3	4	4	2	4
5	Did everybody have an equal opportunity to speak out about their problem?	4	3	4	2	2	4	4	0
6	Did you feel you could trust others in the group?	2	4	4	2	3	3	3	3
	<b>Facilitator</b>								
1	How focused was the facilitator?	4	4	4	3	4	3	4	4
2	How well did the facilitator understand your problem?	4	4	4	3	3	3	3	3
3	How sympathetic and caring was the facilitator?	4	4	4	3	3	4	4	4
4	How sure was the facilitator of what she or he was doing?	4	4	4	4	3	4	4	3
5	How aloof was the facilitator?	0	4	0	1	1	0	0	0
6	How friendly was the facilitator?	4	4	3	3	3	4	3	4
7	How supportive was the facilitator?	4	4	4	3	4	3	4	4
8	How encouraging was the facilitator?	4	4	4	3	4	4	4	4
9	How interested and involved was the facilitator?	4	4	4	3	4	4	4	4

## APPENDIX NN

Session Four summary of feedback scores

	4=Maximum 0=Minimum	AvR	BC	EN	HP	JC	LR	RB	UL
	<b>Content</b>		Abs						Abs.
1	How clearly concept of Bait & Hook presented?	4		3	3	3	4	3	
2	How satisfied are you with the presentation?	4		3	3	3	4	3	
3	How well do you understand the Bait & Hook metaphor?	3		3	2	3	4	4	
4	How well do you understand the Bait & Hook as a way of identifying situations that activate an aggressive response?	4		2	3	4	4	4	
5	Rating of importance of Bait & Hook exercise for w/std TABP?	4		2	2	2	4	2	
6	How helpful was the group discussion on sharing your ideas re the Bait & Hook metaphor?	3		1	3	3	4	2	
7	How confident are you to change your behaviour pattern?	1		2	2	1	2	2	
8	How helpful was the group discuss. re anger/hostility?	3		1	2	3	4	1	
9	How helpful was the group. discuss. re prev homework?	3		4	2	2	3	4	
10	Clear understanding of today's homework?	3		3	3	2	4	3	
11	How easily were you able to follow the relaxation exercise?	4		4	3	4	3	1	
12	How much were you able to relax?	3		3	4	4	3	2	
13	How easily were you able to follow the visualisation?	3		2	3	4	3	0	
	<b>Homework</b>								
1	How helpful was the Self-Monitor homework assignment?	3		0	2	3	3	3	
2	How helpful was the Bombs Fuses homework assignment in increasing your awareness of high risk situations?	3			2	4	2	4	
3	How helpful was the time urgency assignment for increasing your awareness of this behaviour?	4		2	2	3	3	4	
4	How helpful was the assignment for increasing general self-awareness?	4		2	3	3	3	4	
5	How useful was the assignment for increasing your knowledge of high risk situations?	3		1	3	1	4	2	
6	How helpful was the assignment for increasing your awareness of your stress levels?	4		1	2	2	4	3	
7	Did you make time to carry out the homework?	4		0	2	2	2	2	
	<b>Group</b>								
1	How satisfied are you with today's session?	3		2	3	3	4	2	
2	How would you rate the level of support from the rest of the group?	4		2	2	3	4	3	
3	How comfortable were you with sharing your experiences with the group?	3		1	2	3	4	3	
4	Did you feel you had the freedom to convey your experiences with the group?	4		1	3	4	4	4	
5	Did everybody have an equal opportunity to speak out about their problem?	4		4	3	1	4	3	
6	Did you feel you could trust others in the group?	4		3	2	4	3	2	
	<b>Facilitator</b>								
1	How focused was the facilitator?	4		3	3	3	4	3	
2	How well did the facilitator understand your problem?	4		2	3	3	4	4	
3	How sympathetic and caring was the facilitator?	4		2	2	2	4	4	
4	How sure was the facilitator of what s/he was doing?	4		4	3	4	4	4	
5	How aloof was the facilitator?	0		1	1	0	0	0	
6	How friendly was the facilitator?	4		3	3	3	4	3	
7	How supportive was the facilitator?	4		2	3	3	4	4	
8	How encouraging was the facilitator?	4		2	2	3	3	4	
9	How interested and involved was the facilitator?	4		3	3	4	4	4	

## APPENDIX OO

## Session Five summary of feedback scores (session conducted by colleague)

	4=Maximum 0=Minimum	AvR	BC	EN	HP	JC	LR	RB	UL
	<b>Content</b>			D/o					
1	How clearly was the concept of "I feel..." presented?	4	3		3	3	4	3	2
2	How satisfied are you with the presentation?	4	3		3	3	4	4	4
3	How well do you understand communicating with "I feel..." messages?	3	2		2	2	4	4	3
4	As a result of the lecture, how well do you understand the difference between "I feel..." messages vs thoughts?	4	2		2	2	3	3	3
5	How important do you think "I feel..." messages are?	2	2		3	3	4	4	4
6	How easily did you follow the meditation?	4	2		3	4	3	2	4
7	How easily were you able to become aware of a feeling?	4	2		3	2	3	0	4
8	Did you locate the feeling in a physical form first?		4		2	3	3	0	0
9	How easily could you communicate your feelings with the group?		2		2	3	0	2	4
10	Were you able to distinguish betw feeling/thought?		4		3	1	3	4	4
11	How well do you understand listening w. empathy?	4	2		2	3	3	3	4
12	How confident re identifying your emotions?	4	2		2	2	3	3	4
13	How confident do you feel re managing your TABP?	1	2		2	2	3	2	3
14	How helpful was the group discussion re "I feel" msg?		2		2	2	2	2	1
15	Confidence to change pattern of communication?	1	2		2	2	2	2	2
16	How helpful was the grp disc on the Bait & Hook h/work?	3	2		1	1	4	4	2
17	How well do you understand today's homework?	2	2		2	3	3	4	3
18	How easily could you follow the relaxation exercise?	1	2		3	4	3	3	4
19	How much were you able to relax?	2	2		4	4	3	2	3
20	How easily could you follow the visualisation exercise?	2	2		3	4	3	1	4
	<b>Homework</b>								
1	How helpful was the Bait & Hook for identifying situations that act as a bait in your life?	2	2		3	4	4	2	0
2	Were you able to identify any of you hook attitudes?	2	2		2	4	4	3	0
3	Did it help increase yr awareness of yr stress levels?	4	1		2	3	4	2	0
4.	Did you do the homework?	2	0		2	2	2	0	2
	<b>Group</b>								
1	How satisfied are you with today's session?	3	2		2	3	4	2	2
2	How would you rate the level of support from the rest of the group?	3	2		2	1	3	3	4
3	How comfortable were you with sharing your experiences with the group?	3	2		3	3	1	4	0
4	Did you feel you had the freedom to convey your experiences with the group?	4	4		3	3	3	4	0
5	Did everybody have an equal opportunity to speak out about their problem?	4	1		3	2	4	4	0
6	Did you feel you could trust others in the group?	3	4		2	3	3	4	3
	<b>Facilitator</b>								
1	How focused was the facilitator?	4	3		3	3	4	4	4
2	How well did the facilitator understand your problem?	4	3		3	3	4	4	0
3	How sympathetic and caring was the facilitator?	4	3		3	3	4	4	4
4	How sure was the facilitator of what s/he was doing?	4	3		3	3	4	4	4
5	How aloof was the facilitator?	0	2		1	1	0	0	0
6	How friendly was the facilitator?	4	3		3	4	4	4	4
7	How supportive was the facilitator?	4	3		3	4	4	4	4
8	How encouraging was the facilitator?	4	3		2	3	4	4	4
9	How interested and involved was the facilitator?	4	3		3	4	4	4	4

## APPENDIX PP

Session Six summary table of feedback scores (Clinton not available)

	4=Maximum score 0=Minimum score	AvR	BC	EN	HP	JC	LR	RB	UL
	<b>Content</b>			D/o					
1	How clearly was the concept of empathy presented?	4	4		2	2	4	4	4
2	How satisfied are you with the presentation?	4	3		3	3	4	4	4
3	Benefit derived from working in pairs?	3	2		3	2	4	4	2
4	How much did you enjoy working in pairs?	4	3		3	3	4	4	3
5	Benefit derived from discussing Self-Monitor, Bait & Hook, Bombs & Fuses with "I feel" msg?	2	2		3	3	4	3	3
6	With how much empathy could you listen?	3	2		2	2	3	2	4
7	How easily did you listen w/o giving advice?	1	2		2	1	3	1	3
8	Do you feel better re listening with empathy?	2	4		2	2	4	4	4
9	Do you have a clear u/stndg of the homework?	3	1		2	2	4	4	3
10	How easily did you follow the meditation?		2		3	0		4	
11	How easily did you follow the relaxation?	4	2		3	4	3	2	4
12	How much were you able to relax?	4	2		3	4	4	2	3
13	How easily did you follow the visualisation?	4	2		3	3	4	1	4
	<b>Homework</b>								
1	How helpful was the "I feel ..." homework exercise?	3	2		2	1	4	4	3
2	How helpful was it in increasing your awareness of your feelings?	3	2		2	2	4	3	4
3	Did you make time to do the homework?	2	0		2	0	2	2	0
	<b>Group Experience</b>								
1	How satisfied are you with today's session?	4	2		2	3	4	4	2
2	How would you rate the level of support from the rest of the group?	3	2		2	2	4	2	2
3	How comfortable were you with sharing your experiences with the group?	4	2		3	3	4	3	2
4	Did you feel you had the freedom to convey your experiences with the group?	4	4		3	3	4	4	1
5	Did everybody have an equal opportunity to speak out about their problem?	4	4		3	4	4	4	3
6	Did you feel you could trust others in the group?	4	4		3	4	4	3	3
	<b>Facilitator</b>								
1	How focused was the facilitator?	4	3		3	3	4	3	4
2	How well did the facilitator understand your problem?	4	2		3	3	4	4	3
3	How sympathetic and caring was the facilitator?	4	3		2	2	4	3	4
4	How sure was the facilitator of what s/he was doing?	4	3		3	3	4	4	4
5	How aloof was the facilitator?	0	3		1	0	0	0	0
6	How friendly was the facilitator?	4	3		3	3	4	4	4
7	How supportive was the facilitator?	4	3		3	3	4	4	4
8	How encouraging was the facilitator?	4	2		3	3	4	4	4
9	How interested and involved was the facilitator?	4	3		3	4	4	4	4

## Appendix QQ

Session Seven summary table of feedback scores (Clinton not available)

	4=Maximum 0=Minimum	AvR	BC	EN	HP	JC	LR	RB	UL
	<b>Content</b>			D/o					D/o
1	How clearly was the concept of self & other presented?	4	3		2	3	4	4	
2	How clearly were the conscious and unconscious presented?	4	2		2	3	4	3	
3	How clearly was the link between emotions & experience presented?	4	2		2	2	4	2	
4	How clearly was the concept of narcissism presented?	4	2		3	4	4	4	
5	How clearly was the concept of world as a mirror presented?	4	2		3	3	4	4	
6	How clearly was the concept of defence mechanisms presented?	4	2		2	3	4	4	
7	How satisfied are you with the presentations?	4	2		3	3	4	4	
8	How well do you u/std the concept of narcissism?	4	1		2	3	4	4	
9	How easily could you visualise your inner core?	2	0		3	1	3	4	
10	How easily could you identify how you protect yr inner core?	2	1		2	1	2	1	
11	Do you have a clear understanding of the homework?	4	2		3	4	4	4	
12	How easily were you able to follow the meditation?	4	2		3	1	3	2	
13	How easily were you able to follow the relaxation?	4	2		3	4	4	0	
14	How much were you able to relax?	3	2		4	4	3	1	
15	How easily were you able to follow the visualisation?	4	2		3	4	4	0	
	<b>Homework</b>								
1	Usefulness of listening with empathy?	3	1		2	2	3	4	
2	How helpful was the homework in increasing your awareness of how you listen to others?	2	2		2	3	3	4	
3	Were you able to make time to carry out the h/w?	2	0		2	2	1	2	
	<b>Group Experience</b>								
1	How satisfied are you with today's session?	3	2		2	1	3	3	
2	How would you rate the level of support from the rest of the group?	4	2		2	1	3	2	
3	How comfortable were you with sharing your experiences with the group?	3	2		1	1	2	0	
4	Did you feel you had the freedom to convey your	4	3		1	1	3	2	
5	Did everybody have an equal opportunity to speak out about their problem?	4	3		2	4	4	4	
6	Did you feel you could trust others in the group?	3	3		1	2	3	2	
	<b>Facilitator</b>								
1	How focused was the facilitator?	4	3		2	3	4	4	
2	How well did the facilitator understand your problem?	4	3		3	2	3	4	
3	How sympathetic and caring was the facilitator?	4	4		3	3	3	4	
4	How sure was the facilitator of what s/he was doing?	4	3		3	3	4	4	
5	How aloof was the facilitator?	0	3		1	0	0	0	
6	How friendly was the facilitator?	4	4		3	3	4	3	
7	How supportive was the facilitator?	4	4		3	3	4	4	
8	How encouraging was the facilitator?	4	4		3	3	4	4	
9	How interested and involved was the facilitator?	4	4		3	4	4	4	

## APPENDIX RR

Session Eight summary table of feedback scores

	4=Maximum 0=Minimum	AvR	BC	EN	HP	JC	LR	RB	UL
	<b>Content</b>		Abs	D/o					D/o
1	How clearly was the concept of the Triangle of Relating presented?	4			3	4	4	3	
2	How satisfied are you with the presentation?	4			3	4	4	3	
3	How much benefit did you derive from working in pairs?	3			3	4	4	4	
4	How much did you enjoy working in pairs?	3			3	4	4	4	
5	How well were you able to use "I feel" messages & listen with empathy?	3			2	2	4	2	
6	How easily were you able to listen w/o giving advice, etc?	3			2	3	3	2	
7	Do you have clear understanding of the homework?	4			3	3	4	4	
8	How easily could you follow the meditation exercise?	4			3	3	3	4	
9	How easily could you follow the relaxation exercise?	4			3	4	4	4	
10	How much were you able to relax?	3			4	4	3	4	
11	How easily could you follow the visualisation exercise?				3	3	4	4	
	<b>Homework</b>								
1	Usefulness of taking note of your reactions to situations?	4			3	4	4	4	
2	Usefulness of using the concepts of Fuse Behaviour, Bait & Hook, Belief System, Self-Monitor to understand your reactions to situations?	3			3	3	4	4	
3	How helpful was the homework in increasing your awareness of your reactions to situations?	4			3	4	4	4	
4	Were you able to make time to carry out the homework?	2			2	2	2	2	
	<b>Group Experience</b>								
1	How satisfied are you with today's session?				3	4	4	4	
2	How would you rate the level of support from the rest of the group?	4			3	3	4	4	
3	How comfortable were you with sharing your experiences with the group?	4			2	4	4	4	
4	Did you feel you had the freedom to convey your experiences with the group?	4			3	4	4	4	
5	Did everybody have an equal opportunity to speak out about their problem?	4			3	4	4	4	
6	Did you feel you could trust others in the group?	4			2	4	4	4	
	<b>Facilitator</b>								
1	How focused was the facilitator?	4			3	4	4	4	
2	How well did the facilitator understand your problem?	4			3	3	4	4	
3	How sympathetic and caring was the facilitator?	4			3	3	4	4	
4	How sure was the facilitator of what s/he was doing?	4			3	4	4	4	
5	How aloof was the facilitator?	0			1	0	0	0	
6	How friendly was the facilitator?	4			3	4	4	4	
7	How supportive was the facilitator?	4			3	4	4	4	
8	How encouraging was the facilitator?	4			3	4	4	4	
9	How interested and involved was the facilitator?	4			3	4	4	4	

## APPENDIX SS

Session Nine summary table of feedback scores

	4=Maximum 0=Minimum	Av	BC	HP	JC	LR	RB	UL
	<b>Content</b>		Abs					D/o
1	How easily were you able to identify a feeling in the meditation?	3		2	1	4	4	
2	How much benefit from working in pairs?	3		3	4	4	4	
3	How much did you enjoy working in pairs?	3		3	4	4	3	
4	How well were you able to use "I feel" msg & listen w empathy?	4		2	3	4	2	
5	How easily were you able to listen w/o giving advice, etc?	2		2	2	2	2	
6	How helpful was the researcher in helping you make connections?	4		3	4	4	4	
7	How easily could you follow the relaxation exercise?	THE GROUP RAN OUT OF TIME BECAUSE THEY CONTINUED WITH THEIR SMALL-GROUP DISCUSSIONS						
8	How much were you able to relax?							
9	How easily could you follow the visualisation exercise?							
	<b>Homework</b>							
1	How helpful was the exercise for taking note of your reactions to situations?	4		3	2	4	4	
2	How easily were you able to identify the root of your reactions to situations?	3		1	2	3	2	
3	How much did the exercise increase your awareness that there is a deeper root to your reactions?	3		1	3	4	3	
4	Were you able to make time to carry out the homework?	2		2	2	0	2	
	<b>Group Experience</b>							
1	How satisfied are you with today's session?	4		3	4	4	3	
2	How would you rate the level of support from the rest of the group?	4		3	4	4	4	
3	How comfortable were you with sharing your experiences with the group?	4		3	4	4	4	
4	Did you feel you had the freedom to convey your experiences with the group?	3		3	4	4	4	
5	Did everybody have an equal opportunity to speak out about their problem?	4		3	4	4	4	
6	Did you feel you could trust others in the group?	4		3	4	4	4	
	<b>Facilitator</b>							
1	How focused was the facilitator?	4		3	4	4	4	
2	How well did the facilitator understand your problem?	4		3	4	4	4	
3	How sympathetic and caring was the facilitator?	4		3	4	4	4	
4	How sure was the facilitator of what s/he was doing?	4		3	4	4	4	
5	How aloof was the facilitator?	0		1	0	0	0	
6	How friendly was the facilitator?	4		3	3	4	3	
7	How supportive was the facilitator?	4		3	3	4	4	
8	How encouraging was the facilitator?	4		3	4	4	4	
9	How interested and involved was the facilitator?	4		3	4	4	4	

## APPENDIX TT

Session Ten summary table of feedback scores

		Av	BC	HP	JC	LR	RB	UL
	<b>Content</b>							D/o
1	How clearly was the concept of the mind-body interface presented?	4	4	1	3	4	4	
2	How clearly was the concept of the lived body presented?	4	3	1	3	4	4	
3	How well do you now understand the mind-body connection?	4	2	0	3	4	4	
4	How well do you now understand the lived body?	4	2	0	3	4	4	
5	How easily were you able to come up with everyday language that is embodied?	2	2	1	1	3	4	
6	How easily were you able to make connections between past illnesses, emotions and life experiences?	2	2	0	1	3	2	
7	How easily could you follow the relaxation exercise?	THE GROUP OPTED TO CONTINUE THE GROUP DISCUSSION RATHER THAN TO DO A GROUP RELAXATION						
8	How much were you able to relax?							
9	How easily could you follow the visualisation exercise?							
	<b>Group Experience</b>							
1	How satisfied are you with today's session?	3	2	0	4	4	4	
2	How would you rate the level of support from the rest of the group?	3	4	0	4	4	2	
3	How comfortable were you with sharing your experiences with the group?	3	3	0	4	3	4	
4	Did you feel you had the freedom to convey your experiences with the group?	4	4	1	4	4	4	
5	Did everybody have an equal opportunity to speak out about their problem?	4	4	3	4	4	4	
6	Did you feel you could trust others in the group?	4	4	1	4	4	4	
	<b>Facilitator</b>							
1	How focused was the facilitator?	4	4	1	4	4	4	
2	How well did the facilitator understand your problem?	4	4	2	3	4	4	
3	How sympathetic and caring was the facilitator?	4	4	2	3	4	4	
4	How sure was the facilitator of what s/he was doing?	4	4	2	4	4	4	
5	How aloof was the facilitator?	0	3	1	0	0	0	
6	How friendly was the facilitator?	4	4	2	4	4	4	
7	How supportive was the facilitator?	4	4	1	4	4	4	
8	How encouraging was the facilitator?	4	4	1	4	4	4	
9	How interested and involved was the facilitator?	4	4	2	4	4	4	

## APPENDIX UU

Session Eleven summary table of feedback scores

	4=Maximum 0=Minimum	Av	BC	HP	JC	LR	RB
	Content			Abs			
1	How useful was the discussion on everyday language that is embodied in communications by yourself and others?	4	2		3	4	3
2	How easily were you able to participate in the discussion on what your MI or CABG might have been trying to express?	4	2		4	3	3
3	How easily could you follow the relaxation exercise?	4	3		4	4	4
4	How much were you able to relax?	4	3		4	4	4
5	How easily could you follow the visualisation exercise?	2	2		3	4	4
	<b>Group Experience</b>						
1	How satisfied are you with today's session?	4	4		4	4	4
2	How would you rate the level of support from the rest of the group?	4	4		4	4	4
3	How comfortable were you with sharing your experiences with the group?	4	4		4	3	3
4	Did you feel you had the freedom to convey your experiences with the group?	4	4		3	3	4
5	Did everybody have an equal opportunity to speak out about their problem?	4	4		4	4	4
6	Did you feel you could trust others in the group?	4	4		4	3	4
	<b>Facilitator</b>						
1	How focused was the facilitator?	4	4		4	4	4
2	How well did the facilitator understand your problem?	4	4		3	4	4
3	How sympathetic and caring was the facilitator?	4	4		3	4	4
4	How sure was the facilitator of what s/he was doing?	4	4		4	4	4
5	How aloof was the facilitator?	0	3		0	0	0
6	How friendly was the facilitator?	4	4		4	4	4
7	How supportive was the facilitator?	4	4		4	4	4
8	How encouraging was the facilitator?	4	3		4	4	4
9	How interested and involved was the facilitator?	4	4		4	4	4

## APPENDIX VV

Session Twelve summary table of feedback scores

	4=Maximum 0=Minimum	AvR	BC	HP	JC	LR	RB
	<b>Content</b>						
1	How easily were you able to follow the brief meditation exercise?	4	3	2	2	3	4
2	How clearly did group leader consolidate all the concepts covered in the previous 11 sessions?	4	4	3	4	4	4
3	How easily were you able to discuss and share your experiences of the previous 11 sessions?	3	2	2	3	3	3
4	How well did group leader facilitate closure of the programme?	4	4	3	4	4	4
	<b>Group Experience</b>						
1	How satisfied are you with today's session?	4	3	3	3	4	4
2	How would you rate the level of support from the rest of the group?	4	4	2	3	3	4
3	How comfortable were you with sharing your experiences with the group?	3	2	3	4	3	4
4	Did you feel you had the freedom to convey your experiences with the group?	4	4	3	4	4	4
5	Did everybody have an equal opportunity to speak out about their problem?	4	4	3	4	4	4
6	Did you feel you could trust others in the group?	4	4	3	4	4	4
	<b>Facilitator</b>						
1	How focused was the facilitator?	4	4	3	4	4	4
2	How well did the facilitator understand your problem?	4	3	3	3	4	4
3	How sympathetic and caring was the facilitator?	4	4	3	3	4	4
4	How sure was the facilitator of what s/he was doing?	4	4	3	4	4	4
5	How aloof was the facilitator?	0	4	1	0	0	0
6	How friendly was the facilitator?	4	4	3	3	4	4
7	How supportive was the facilitator?	4	4	3	4	4	4
8	How encouraging was the facilitator?	4	4	3	4	4	4
9	How interested and involved was the facilitator?	4	4	3	4	4	4

## APPENDIX WW

### Research Interview Guide Sheets

#### RESEARCH INTERVIEW OUTLINE 1

1. How have you experienced the programme so far?
2. What is the most pertinent thing you have identified about yourself so far?
3. Are you able to identify a trend in your behaviour patterns?
4. What sort of internal Self-Critic do you have?
5. Were you able to identify Bombs and Fuses in your behaviour?
6. How did you find the Time-Urgency exercises?
7. How are you feeling about changing these patterns?

#### RESEARCH INTERVIEW OUTLINE 2

1. How did you experience the programme?
2. What was the most pertinent thing you identified about yourself since our last interview?
3. How did the section on defence mechanisms, self-esteem, narcissism, and so on impact on you?
4. What kind of awareness has the mind-body material created for you?
5. How did the section on the lived body impact on you?
6. How do you feel about making changes to your behaviour based on what you learnt?
7. How confident do you feel about making the changes?

**APPENDIX XX****Six-week follow-up interview guide sheet**

1. How have you coped without the programme in the past six weeks?
2. How are you feeling at present?
3. What do you feel has changed, if anything?
4. When you think back to the programme, what did you learn that has left the greatest impression on you?
5. What do you feel that you learnt in the programme that you have used the most in the last six weeks?
6. What have you missed most about the programme in the last six weeks?

APPENDIX YYEighteen-month follow-up questionnairesQUESTIONS WITH REGARD TO YOUR MENTAL AND PHYSICAL HEALTH

Please answer the following questions about your physical and mental health in the past two years:

1. How would you rate your physical health in the past two years?

0	1	2	3	4
Very bad	Bad	Moderate	Good	Very good

2. Have you experienced any angina symptoms in the past two years? YES/NO

3. Please rate the level of angina pain on the following scale:

0	1	2	3	4
None	Mildly painful	Painful	Very painful	Severely painful

4. Were these pains worse than two years ago? YES/NO

5. Have you experienced a heart attack in the past two years? YES/NO

6. Have you undergone any other heart surgery in the past two years? YES/NO

Please list:

---



---

7. Have you experienced any other physical ailments in the past two years? YES/NO

Please list: \_\_\_\_\_

---



---



---

8. Have you suffered from any depression in the past two years? YES/NO

9. Please rate the level of depression:

0	1	2	3
None	Mild	Bad	Severe

10. Has your cholesterol level changed in the past two years? YES/NO

11. Please state what your cholesterol level was in 2002 \_\_\_\_\_  
 2003 \_\_\_\_\_  
 2004 \_\_\_\_\_

12. Has your blood pressure level increased/decreased in the past two years? YES/NO  
 (Please circle the relevant answer.)

13. Has your weight increased/decreased by more than 5kg in the past two years? YES/NO  
 (Please circle the relevant answer.)

14. Have you changed your smoking habit in the past two years? YES/NO  
 Did you start smoking again? YES/NO  
 Did you stop smoking? YES/NO

15. If there were any other changes in your emotional or physical health that you would like to share with me please do so in the space below.

**KEY CONCEPTS COVERED DURING THE 12-WEEK PROGRAMME**

Please could you rate the following concepts used in the programme in terms of how well you remember them. Please use a scale of 0 to 10 with 10 being the highest and 0 the lowest score. If you do not remember the exercise or the concept, please leave the column blank.

<b><u>CONCEPTS</u></b>	<b><u>THE SCORE</u></b>
1. How the heart works	
2. The Type-A behaviour pattern	
3. The Self-Monitor	
4. Stress and the stress response	
5. The Bombs and Fuses exercise	
6. Time urgency	
7. Time urgency awareness exercises	
8. Impatience, anger and hostility	
9. The Bait and Hook exercise	
10. Identification of feelings versus thoughts	
11. Expression of feelings (using I messages instead of you	
12. Listening with empathy	
13. Self-esteem	
14. The conscious and the unconscious	
15. The self and other	
16. Emotions versus experiences	
17. The world as a mirror experience	
18. The various defence mechanisms	
19. The triangle of relating (Child self reacts, adults self responds)	
20. The mind-body concept	
21. The meditation with the lived body experience of the heart	
22. The relaxation tape	
23. Relaxation and visualisation at the end of the sessions	
24. Working in pairs or small groups	
25. Group discussions	

## APPENDIX ZZ

**REVISED OUTLINE OF 14-WEEK GROUP THERAPY PROGRAMME**  
**FOR POST-MYOCARDIAL INFARCTION REHABILITATION**

AP	AS	S1-S3	S4-S6	S7-S11	S12-S14		MGMs	MGMs	MGMs
		With spouse							
			IS		IS	IS			
				R1P R1S			R2P R2S	F1P R2S	F2P F2S
CAI									
JAS							JAS	JAS	JAS
	SRS			SRS			SRS	SRS	SRS
		WFS	WFS	WFS	WFS				
		HS	HS	HS	HS				
POMS		POMS	POMS	POMS	POMS	POMS	POMS	POMS	POMS

Tools for data collection

CAI	Cardiac Assessment Interview
JAS	Jenkins Activity Survey
SRS	Spouse Rating Scale
POMS	Profile of Mood States
WFS	Weekly feedback sheets
HS	Homeworksheets

Time frame of the data collection

AP	Pre-programme assessment interview with participant
AS	Pre-programme assessment interview with spouse
S1-S3	Sessions 1 to 3 with spouse in attendance
S4-S6	Sessions 4 to 6
S7-S11	Sessions 7 to 11
S12-S14	Sessions 12 to 14
IS	Individual sessions
MGMs	Ongoing monthly group meetings
R1P	Research interview one with participant
R1S	Research interview one with spouse
R2P	Research interview two with participant
R2S	Research interview two with spouse
F1P	Six-week follow-up interview with participant
F1S	Six-week follow-up interview with spouse
F2P	Long-term follow-up interview with participant
F2S	Long-term follow-up interview with spouse

- Session 1: Group leader introduces the aims of the 14-week group sessions. Individuals briefly introduce themselves to the group. Brief overview of how the heart works and how heart attacks happen and how the different medications for CHD work. Individuals share experience of the CHD (heart attack, by-pass, cholesterol level); discuss what medication they are on. Group leader introduces the progressive relaxation technique. End session with a 20-minute relaxation exercise using the 15-muscle group method. Participants are given a relaxation tape which they are encouraged to use on a daily basis.
- Session 2: In the form of a lecture, the group leader introduces the concept of emotions and experiences as clues for understanding the drive behind behaviour. The concept of the conscious and the unconscious is also briefly outlined. Following on from this, the Type A behaviour pattern (TABP), particularly the subcomponents of anger, hostility, impatience, time-urgency, and competitiveness are introduced. Introduce the concepts of the Self-Monitor and Bombs and Fuses to develop greater awareness of the TABP. Group discussion on the concepts introduced. Participants are given worksheets to complete for the week. These will be discussed at the next group meeting. End session with a 15-minute relaxation exercise using the 15-muscle group method.
- Session 3: To introduce the concept of stress and the stress response. To develop a further awareness of time urgency as a component of the TABP. Group leader presents the concepts and then initiates discussion around time-urgency. The worksheets from the previous week are also discussed and the Bombs and Fuses and Self-Monitor concepts reinforced. Participants are given worksheets to complete for the week in respect of identifying specific time-urgent behaviours and practising Type B behaviours. These will be discussed at the next group meeting. End session with a 15-minute relaxation, this time using the seven-muscle group method.
- Session 4: Develop further awareness of the anger and hostility component of the TABP by introducing the Bait and Hook metaphor. Participants are encouraged to discuss situations that act as baits as well as their belief systems which are the hooks. Information gleaned from the Self-Monitor and Bombs and Fuses exercises is reinforced. End session with a 15-minute relaxation exercise using the seven-muscle group method. Introduce a brief visualisation exercise into the relaxation.
- Session 5: No new material is introduced. Discuss the TABP and the homework exercises in small groups of twos or threes.
- Session 6: Group leader briefly outlines the aim of the next few sessions in terms of identifying and expressing feelings, as well as listening with empathy and compassion. Briefly introduce the concept of the self and

other and using experiences as a mirror. The importance of earliest relational constellations discussed. Conduct a 10-minute meditation exercise. Participants are asked to become aware of a feeling and if necessary to locate it as a physical sensation. The inner state experience is then translated into a language of emotion by asking participants to complete a sentence beginning with "I feel..." and to share this with the group. Participants are asked to distinguish between a feeling and a thought and to continue being aware of this process throughout the next week. Participants are encouraged to discuss insights, experiences, and so on, regarding their TABP using either "I feel..." or one word to describe how they feel; or to share a significant feeling experience concerning their insights. Participants to practise beginning communications with "I feel..." during the week. End session with a 15-minute relaxation exercise.

- Session 7: Conduct a 10-minute meditation exercise. The concept of empathic listening is introduced. Participants are advised that everything that takes place has meaning. Introduce the rules of not giving advice, not reassuring, not giving testimonials about one's own successes or failures, not judging an experience or a feeling and listening with the other person's ears, that is, to what she or he wants you to hear. Group is divided into pairs in order to work on this exercise and to discuss the insights from the Self-Monitor, the Bombs and Fuses and Bait and Hook worksheets and exercises. Participants are asked to be aware of listening to others during the week and to continue communicating with "I feel...". End session with a 15-minute relaxation exercise.
- Session 8: Group leader introduces the concept of narcissism. As a lead up to this, the concept of self-esteem and the defences that we use to protect oneself are outlined. The group leader then relates the story of Narcissus. Conduct a 10-minute meditation exercise in which participants are asked to visualise their inner core and the various ways in which they have protected it. Participants to think about the Bomb and Fuses and Bait and Hook exercises to try and understand their reactions to situations. Participants are asked to share with the group. End session with a 15-minute relaxation exercise.
- Session 9: Summarise all the psychological concepts introduced thus far using the homeworksheets completed thus far as topics for small-group discussions.
- Session 10: Group leader introduces the concept of the Triangle of Relating. Conduct a 10-minute meditation exercise in which participants are asked to visualise a recent situation in which they felt they had reacted, rather than responded. Group is divided into pairs to discuss the situation. Group then comes together to share insights. Participants are asked to use their Self-Monitor to note their reactions versus responses in the coming week and to attempt to identify the root of the reaction. End session with a 15-minute relaxation exercise.

- Session 11: Begin session with a 10-minute meditation exercise. Participants are asked to identify how they are feeling and to share this with the group. Participants to work in pairs to share insights gained from the exercise on reactions versus feelings. Participants to help one another to try and understand the reactions. Participants to share experiences in the group and with the help of the group leader, to identify the connections to inner core, the TABP, self-esteem, and so forth. End session with a 15-minute relaxation exercise.
- Session 12: Group leader introduces the concept of mind-body connection and the drama as played out in the lived body so that everything that happens in the body has meaning. Conduct a 10-minute meditation exercise in which participants are asked to identify a physical sensation in the body and then to translate it into emotional language. Share feelings with the group. Participants will be asked to brainstorm a list of everyday sayings which pertain to the language as expressed in the body. Participants are asked to listen to everyday communications by others to identify a connection between mind and body and to discuss these in the next session. End session with a 15-minute relaxation exercise.
- Session 13: Group leader advises participants that this meditation and visualisation exercise will work with the experience of the body and of the heart attack. Participants are asked to share how they feel about this. Conduct a 20-minute meditation and visualisation exercise. Participants to share experiences. End session with a five-minute relaxation exercise.
- Session 14: Begin session with a 5-minute meditation exercise. Group sharing of the experience with the group. Group leader to bring all major issues together and to facilitate closure.

## Appendix AAA

## Heart Magazine Article

Has anyone ever told you that you eat too fast? If you're stuck in traffic, do you need to be at the front of the queue? If so, you could have what's known as the 'Type A behaviour pattern'. 'Type-A people are time-urgent, pressurised and don't have enough hours in the day,' explains cardiac rehabilitation psychotherapist Sharon Frewen. 'They're very involved in their jobs, hard-driving and competitive.'

It is also a well-known fact that Type A's are particularly at risk for cardiac problems. 'They tend to react to everyday situations with the stress response, even if the situation doesn't warrant it,' says Frewen.

For a recent study, which is part of her decision-

therapy, Frewen formulated a 12-week, two-tiered course of psychotherapy for people who've experienced a cardiac episode. 'Although people who suffer heart episodes are put on lifestyle and exercise regimens, very little is done to see to their psychological recovery unless the patient requests it,' says Frewen.

Her programme serves firstly to help someone handle the trauma of a cardiac event (like a heart attack or heart surgery) and secondly to address the Type A behaviour pattern and the accompanying personality traits that make Type A's susceptible to cardiac conditions in the first place.

In Frewen's study, all the participants had suffered

heart attacks or undergone bypasses in the previous 12 months. All had the Type A behaviour pattern and stressful lifestyle. She focused on re-educating them behaviourally by teaching them why they reacted – and sometimes over-reacted – to situations by helping them to understand their emotions. 'It can become a vicious cycle. Depression and bad stress management – just two of life's typical stressors – result in the need to smoke, high blood pressure, poor eating habits, lack of desire to exercise and so on – all factors that contribute towards coronary heart disease.'

Frewen's angle is that if Type A personalities can be helped to understand themselves and why they act the way they do, it could go a long way to reducing the risk of a cardiac event.

The problem, says Frewen, is that our society encourages the Type A mentality with our emphasis on achieving goals and getting ahead. Her approach has been to help people recognise the difference between healthy achievement striving, compared to the endless treadmill of relentless ambition with little sense of real success.

We spoke to three of her patients after they had completed her programme.

## LR (65)

**BACKGROUND:** ■ traces his competitive, busy nature back to his father who died from a heart attack at age 56. Brought up with an emphasis on achievement, ■ suffered a heart attack two years ago. Immediately after recovering he made amendments to his diet and started a strict regime of exercising three times a week. While these changes to his lifestyle went a long way to improving his health, he says Sharon Frewen's cardiac rehabilitation course made all the difference.

**WHAT HE LEARNT:** ■ is an ■ priest and has a psychology background. For him the link between physical recovery and psychological rehabilitation was immediately clear and the results obvious.

**WHAT HE'S DONE:** ■ made a conscious effort to improve his time management and stress response. 'Whenever I go, I always drive in the slow lane.' This unhurried approach is one he's applied to other areas of his life too. He now seems incapable of rushing, taking time to focus himself daily. 'I lie in my bed, become almost meditative and say to myself that there's no need to rush.'

Understanding his stress response and what precipitates it has had another benefit – he's

now more tolerant of other people and why they react the way they do.

But he says the most profound discovery was that his health is in his hands. It's been empowering and he's using psychological principles to overcome his former behaviour patterns. 'Most people come out of a heart attack living in fear of when the next one will strike. Doing the course with Sharon has equipped me to change that. Working towards a healthy lifestyle, behaviour and personality means that I needn't worry about having another heart attack – make that decision for myself.'

## JC (51)

**BACKGROUND:** ■ wasn't surprised that he suffered a heart attack in 1999. There was a history of cardiac disease in his family and he admits that at the time his lifestyle wasn't what it should have been – too many beers and cigarettes. He confesses to having been 'time urgent' in every respect of his life, always giving 100% and being extremely competitive.

What did surprise him was the timing of his second heart attack. In an attempt to downscale his lifestyle, he was voluntarily retrenched from his stressful position as sales manager for a ▶

By Sharon Frewen

paint company. Although he thought that he had changed his lifestyle for the better by removing a major stress factor, his second heart attack struck in early 2002. He joined Frewen's programme and says what he learnt was life-changing.

**WHAT HE LEARNT:** ■ realised that it wasn't enough to stop smoking and cut out red meat. The real solution lay in adjusting his entire behaviour pattern, a change he's managed to stick to for almost a year.

■ reiterates what all of Frewen's patients have discovered about the programme – that the key is the psychological changes that take place, not the physical ones.

'I was struck by the psychological approach to the programme. You're prescribed medicines and exercise plans after a heart attack and given a false sense of security that you'll be okay. Unless the underlying psychological and behavioural patterns leading to a heart attack are dealt with it's just a matter of time before the next one strikes.'

**WHAT HE'S DONE:** ■ now works for himself, he runs a small hardware store, doesn't have employees to take care of and has made his time his own. Little changes in life like eating

dinner at the table, as opposed to in front of the TV, and walking somewhere rather than driving, have made a big difference. He's consciously redressing how he responds to situations, and no longer responds to things in a stressful manner.

## WINE PLAYERS (63)

**BACKGROUND:** A devoted teacher, wife and mother of two, Anne's always enjoyed living an active and busy life. She used to be the sort of person who took responsibility for others and admits her one fault was being unable to say no.

She often took on more than she could cope with, until her heart gave in. During an intensely stressful period four years ago, Anne suffered two heart attacks in just a few months. Prior to that, she hadn't looked after herself as well as she should have. She smoked, ate the wrong foods and never took things easy. She was prone to emotional outbursts and volatile moods – a result of keeping things inside and not expressing herself.

**WHAT SHE LEARNT:** While she wouldn't call herself a 'hangdog' person, Anne says Frewen's course has helped a lot. 'Immediately after the

heart attacks, I was rather resentful that I couldn't be as active as before,' she says.

She still is to some extent, but says the course has gone a long way in helping her to get rid of that resentment. 'Part of Sharon's approach is to make people comfortable with their bodies and who they are.'

She has learnt to realise her limitations and knows when she is pushing herself too hard.

She's also learnt to express herself in a healthy way. 'For the first time since the heart attack I learnt that I could open up and express myself without feeling guilty.'

**WHAT SHE'S DONE:** Now Anne stops and asks herself if something is worth getting upset about. Before the heart attack she tended to keep things inside before blowing up, but she now has the ability to say 'no' to herself, to others and to speak her mind.

'One of the most important things is to remember that you need to be aware of where you're going wrong in terms of your lifestyle and behaviour. Be aware, and know what you can do to fix it,' she says.

Wine words indeed.

Not her real name.