

THE PRACTICAL AND THEORETICAL IMPLICATIONS  
OF PRETREATMENT AND POSTTREATMENT ANXIETY LEVELS  
IN ALCOHOLIC IN-PATIENTS

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A research monograph presented to the Department of  
Psychology of Rhodes University in partial fulfilment  
of the requirements for the degree of Master of Arts  
(Clinical Psychology)

November 1983

To  
my father  
and  
the memory of  
my mother

## Acknowledgements

I would like to thank

Professor H.W. Page for his advice

Dr. P. Koen for his support

Mrs A. Stripp and Miss L. Stripp for the typing

Cheryl Moir for entering the data into the computer

## ABSTRACT

Pretreatment and posttreatment anxiety scores on the IPAT Anxiety Inventory and the Taylor Manifest Anxiety Scale were obtained from 27 alcoholic in-patients who participated in an alcoholic treatment programme. The treatment programme focused on abstinence and not on anxiety reduction. The results showed that there was a significant decrease between the pre- and the posttreatment anxiety scores on both measures. The duration of hospitalization or the attendance of group psychotherapy did not affect the decrease in anxiety scores. The implications of these results for Pattison's (1979) Multivariate Multimodal model of alcoholism are discussed.

Widely different views are held by researchers regarding the relationship between anxiety and alcoholism yet it is in support of a more recent of these by Pattison (1979; 1980) that this study aims to contribute.

Pattison's "multivariate-multimodal" theory may be seen as a logical extension of two decades of debate about the concept of alcoholism, its aetiology and treatment. The debate began in 1960 when E.M. Jellinek, who is considered by most writers to be a pioneer in the field, attempted a coherent scientific formulation of alcoholism. In collaboration with the World Health Organization, Jellinek defined alcoholics as,

"...those excessive drinkers whose dependence upon alcohol has attained such a degree that it shows a noticeable mental disturbance or an interference with their bodily and mental health, their interpersonal relations, and their smooth social and economic functioning, or who show the prodromal signs of such developments. They therefore require treatment." (Davies 1976 p57)

and later went on to propose a disease concept of alcoholism to indicate five types of basic patterns of alcohol use and abuse. Four of these, the alpha, beta, epsilon and delta types, were considered as alcohol problems, while the gamma type was seen as alcohol addiction and as such was labelled a disease.

Jellinek's model has been criticized not only on methodological

grounds but also for its lack of empirical and clinical support.

Pattison (1980 p184) lists the following criticisms:

(1) Jellinek derived his theory from an open-ended questionnaire completed by members of Alcoholics Anonymous (AA). Only 6.13%, a total of 98 questionnaires, were adequate for analysis.

Jellinek's sample was therefore highly biased in that all the subjects came from one organization and, moreover, the questionnaires returned are hardly representative of the sample.

(2) Pattison quotes Seiden's (1960) argument that the members of AA are not representative of the alcoholic population and that AA ideology may have influenced the responses.

(3) Jellinek coded the responses to the questionnaires in a post hoc manner, which raises questions about bias.

(4) A re-analysis of Jellinek's data by another researcher failed to support Jellinek's conclusions.

Yet in spite of these criticisms Jellinek's formulation was taken out of context by researchers in the field and used to support the unitary concept of alcoholism. This unitary concept proposes,

"....that there is a unitary phenomenon called alcoholism, in which all persons so afflicted are substantially the same, who experience a similar progressive deterioration, who all respond to a singular treatment, resulting in one specific outcome - abstinence." (Pattison 1979 p127)

The multivariate multimodal model, in contrast, centres around the assumption that alcoholism is not a unitary disease, but a syndrome.

Pattison (1980) defines a syndrome as "a group or set of concurrent symptoms which together can be considered a disease" (p183) and states that the only constant feature of the alcoholism syndrome is a significant life problem associated with alcohol. Because there is so much variability in the alcoholism syndrome each individual must be assessed in terms of the particular array of symptoms, disabilities and potential for change that characterize the alcoholism syndrome for that particular individual. The multivariate-multimodal model therefore recognizes that there are "multiple variables that produce multiple syndromes which require multiple modes of treatment based on differential treatment selection". (p187)

As far as the relationship between anxiety and alcoholism is concerned it is logical to expect that theorists who base their research on the assumption that alcoholism is a unitary disease will try to show either that anxiety is the cause of alcoholism for all alcoholics or, at the very least, that a positive relationship exists between anxiety and alcohol consumption.

The research to date on this relationship may be subsumed under two headings: The tension reduction theory and the social learning theory.

The tension reduction theory has a long history as an explanation of alcohol use and abuse. Briefly put, this theory holds that people

drink alcohol in order to relieve or escape aversive states of anxiety, frustration or tension. Alcohol is assumed to reduce anxiety by virtue of its pharmacologically depressant effect on cortical control of behaviour. The psychological effects of alcohol are thus initially tension reducing and therefore reinforcing. The reinforcement in turn strengthens the drinking response which will therefore occur more frequently in response to tension. This cycle eventually leads to habitual drinking.

The related assumptions underlying this theory are: (1) that alcohol reduces tension (2) that this tension reducing effect reinforces drinking and (3) that anxiety elicits drinking.

Research related to the theory goes back as far as the 1950's. For example, Scarborough (1957) showed that when rats were in a situation previously made fearful by electric shock, they became less anxious after they had been injected with alcohol. In this experiment anxiety was defined in terms of bar pressing response made in a Skinner box. He also found that the fear-reducing qualities of alcohol lasted 72 hours after the alcohol injections, which led him to conclude that the effects of alcohol on reducing anxiety persisted beyond the period of anticipated physiological involvement. The problem with this experiment is the questionable validity of extrapolating its result to the human situation.

Using 30 alcoholics, 30 normals and 30 schizophrenics as subjects, Menaker (1967) found that alcoholics became more anxious than

non-alcoholics when anticipating taking a drink. One of the implications of this finding is that it points to the role which the anticipation of drinking may play in evoking anxiety in the alcoholic, thus increasing his need for tension reduction. Menaker suggests that,

"A broad understanding of the problem of alcoholism would seem to include not only an exploration of those conflicts or experiences which antedate the onset of problem drinking but also of the psychological significance of the drinking response itself and its possible role in the maintenance of habitual excessive drinking."

(p49)

Steffan, Nathan and Taylor (1974) investigated the relationships between blood alcohol level and muscle tension and blood alcohol level and subjective disturbance in alcoholics who were given a fixed quantity of alcohol every day for a 12 day period. Their findings were paradoxical, because significant negative correlations between blood alcohol level and muscle tension were not found for every subject on every day, although they were for some subjects on some days. The writers conclude that,

"...relations among level of intoxication, tension level and level of subjective disturbance are more complex than previously believed." (p546)

and criticise the methodologies of previous studies on the tension reduction theory on the grounds that the subjects rarely received alcohol for more than one day. They write,

"...studies of the tension reduction hypothesis that employ only acute alcohol administration

may not be validly exploring the tension reducing qualities of alcohol." (p545)

Pearlin and Radabaugh (1976), in showing that interconnections exist among economic hardship, anxiety and drinking for the relief of distress, support Steffan, Nathan and Taylor's (1974) view that the relationships between the variables which account for alcoholism are complex. They found that intense anxiety is likely to result in the use of a tranquilizer if a sense of personal efficacy is lacking and self esteem is low. They add,

"It is readily apparent from the magnitude of these correlations that conditions other than those examined here also have a major part in accounting for escape drinking. But from those that were considered, it is equally apparent that there is an interlocking set of economic, social and psychological conditions that both contribute to the arousal of anxiety and channel behaviour to drinking as a means of coping with it."  
(p663)

Among the research which challenges the validity of the tension reduction theory is a study by Nathan and O'Brien (1971) which compared the behaviour of alcoholics and non-alcoholics under conditions of experimental intoxication. These researchers reported that during an initial 12-24 hour drinking period a modest decrease in anxiety was noted, but that subsequent drinking led to an increase in anxiety and depression.

Higgins and Marlatt's (1973) experiment also failed to support the theory. These researchers engaged 20 alcoholics and 20 social

drinkers in a situation in which both groups had high and low levels of state anxiety induced in them by the threat of either a painful or a non painful electric shock. Levels of trait anxiety were also assessed using the Neuroticism scale of the Eysenck Personality Inventory. The researchers found that the alcoholics consumed significantly more alcohol than the social drinkers, but the amounts consumed by both groups were unrelated either to the anxiety manipulation factor or the trait anxiety scores. Two major implications of this study are: (1) it failed to support the view that drinking for either the alcoholic or the social drinker represented a learned response to escape from anxiety and (2) the manipulation of state anxiety (threat of electric shock) is not a primary determinant of drinking for either alcoholics or social drinkers.

Freed (1978) confirmed Nathan and O'Brien's (1971) finding that alcoholics tended to show increasing anxiety and depression with increased alcohol consumption. He concluded that social factors play a role in determining the affective consequences of drinking.

Writing from a pharmacological point of view Goodwin (1980) notes that when alcohol is oxidized in the body it is stripped of hydrogen atoms which results in certain biochemical changes. One of these changes is an increase in lactic acid which is interesting because,

"...increased lactic acid has been associated with anxiety and heavy drinking is also associated with anxiety attacks." (p22)

The research to date on the tension-reduction theory, as shown, is full of inconsistencies. The data are far from clear and the methodological inadequacies of most of the studies make interpretation difficult. For example, Steffan Nothman and T aylor's (1974) research does not prove that alcohol reduces tension, but rather that increasing blood alcohol levels tend to be correlated with decreasing muscle tension. This conclusion must be limited to alcoholics who drink in laboratory settings like the one used in the experiment. Further, the generality of their findings is restricted because of the small sample size.

Another problem is that most of the studies have been limited to a single measure of anxiety as opposed to a multiple measurement of overt (avoidance) behaviour, psychophysiological arousal and self report of distress. As Wilson (1978) suggests,

"These different dimensions of anxiety may be differentially responsive to different forms of influence and change at different speeds...The majority of these studies have failed to control for various cognitive influences, such as expectation, in assessing alcohol's effect on anxiety." (p322)

These problems have led a number of writers (Davis 1971; Higgins and Marlatt 1973; Miller, Hersen, Eisler and Hilsman 1974) to conclude that it is doubtful that any simple interaction between stress and alcoholism will be demonstrated. According to Higgins and Marlatt (1973) it would be more fruitful to first assess the nature of the

specific situations in which alcoholics or social drinkers are most likely to drink and then to examine these in order to determine whether any commonality across situations exists. Another suggestion is that interpersonal variables may represent significant factors in determining the alcoholic's drinking in stressful situations and that it is these variables that should be researched.

The "social-anxiety" model (Kraft 1971) has been plagued by similar methodological problems. According to this model alcoholism is "the outward expression of underlying social anxiety which the patient counteracts by the use of alcohol." (p797). The aetiology of alcoholism is seen as follows: At some stage of the individual's development his social responses are inhibited by the environment, which may include family, friends, school and peer group. Once these social responses have been inhibited the individual fails to acquire adequate social skills, which causes anxiety. He learns to cope with the anxiety by drinking. Following logically from these assumptions the goal of treatment becomes the removal of social anxieties by methods such as systematic desensitization, relaxation and hypnosis.

In contrast to the theorists who hold strictly to the unitary concept of alcoholism, Kraft (1971) recognizes that the social anxiety theory is not the only explanation which may have any validity. He acknowledges that his model is just another way of looking at the problem and accepts that it is quite possible that the various views

about alcoholism are not mutually exclusive and that more than one may apply in a particular situation.

Kraft's model has been challenged by Miller, Hersen, Eisler and Hilsman (1974) who examined the relationship between social stress and alcohol consumption in 10 alcoholics and 10 social drinkers. They found that the alcoholics significantly increased their consumption following stress conditions while the social drinkers did not. In interpreting this result, they support Kraft's hypothesis that the alcoholic has learned to respond to stressful situations by consuming alcohol and that the non-alcoholic has learned a variety of more adaptive responses, but implicitly question Kraft's assumption that the relationship between stress and alcohol abuse can be seen in terms of cause and effect. They write,

"It seems doubtful that any simple interaction between stress and alcoholism or arousal and alcoholism will be demonstrated. Allman et al (1972) suggest a complex relationship between stress and drinking that appears related to subject characteristics, type of stress (eg. interpersonal or environmental) and the context in which the stress occurs.

...the present findings indicate that interpersonal variables may represent significant factors in determining the alcoholic's drinking as a function of stressful situations." (p72)

A modification of Kraft's social anxiety model is the social learning model. Miller, Stanford and Hemphill (1974), in outlining this approach, write that alcoholism is viewed as,

"...a socially acquired habitual behaviour pattern which

enables the alcoholic to avoid or escape from unpleasant, anxiety-producing situations, to exhibit spontaneous social behaviour, to gain increased attention (either positive or negative) from friends and relatives, and to avoid withdrawal symptoms associated with termination of drinking." (p279)

This orientation gives rise to a three pronged treatment approach: Firstly, aversion therapy in order to decrease the immediate reinforcing properties of alcohol. Secondly, new ways of dealing with stressful situations are taught and thirdly the social and vocational environment is altered so that the alcoholic derives increased satisfaction from life.

Outcome studies of this approach are not yet available. However, it is significant that behaviour therapists have modified their treatment approaches from aversion therapy as the only form of treatment to broader strategies such as the one described above. This modification, according to Miller (1976), is the result of the awareness by behaviourists that a "naive approach to a complex clinical problem such as alcoholism is unwarranted." (p656)

The above review of the literature clearly illustrates that any researcher's approach to the relationship between anxiety and alcoholism is predicated upon his underlying assumptions about the nature of alcoholism. This in turn will influence his ideas about treatment. If the researcher holds to the unitary concept of alcoholism and sees anxiety as the cause of alcoholism, then anxiety reduction will be the focus of treatment.

A significant advance in the study of alcoholism is the realization that it may not be a unitary disorder or a single entity. Pattison (1979; 1980) has not been the only writer to propagate this view.

Tartar and Schneider (1976) for example suggest that,

"...considered in terms of levels of analysis the available evidence points to the possibility that alcoholism (heretofore thought of as a single entity) may in fact manifest via different mechanisms, hence multiple causality in the induction of alcoholism" (p101)

and Swinson and Eaves (1978) write,

"The causes of alcoholism are multifactorial, and even relative influences of personality structure, early upbringing and genetic influences have not yet been determined, although each may have significance." (p320)

Such views have given rise to what can be called the "interdisciplinary" approach, which sees alcoholism as a complex of disorders. Within this framework the debate about which model is the most valid or has the most heuristic value becomes irrelevant. Instead, a model appropriate to the aspect under inquiry is applied with a view to the differentiation of alcoholics according to aetiological factors, process characteristics and overt manifestations. (Tartar and Schneider, 1976 p102)

According to Pattison (1980) a consequence of the interdisciplinary approach has been the "shotgun" method of treatment whereby an alcoholic is blasted with all types of treatment methods in the hope that if one particular type of treatment fails then at least one of

the other types will have some measure of success, yet he points out that it is incorrect to assume that if a little treatment does some good then a lot of treatment will be even better, and quotes research (Costello 1975) which found that eclectic "little bit of everything" type approaches have the lowest rehabilitation rates, the highest drop out rates and the largest number of overt treatment failures. It must be pointed out that Pattison is not opposed to multiple treatments per se; rather he feels that particular treatments must be selected for particular individuals, according to that individual's needs.

The multivariate-multimodal model can be seen as a refinement of the interdisciplinary model. Based on the assumption that alcoholism is a variable syndrome and that there is variability in alcoholic populations, treatment systems and treatment methods, the following propositions (Pattison 1979 p128-132) are included in the model:

- (1) Alcohol dependence subsumes a variety of syndromes defined by drinking patterns and the adverse consequences of such drinking.
- (2) An individual's use of alcohol can be considered as a point on a continuum from nonuse, to non problem drinking, to various degrees of deleterious drinking.
- (3) The development of alcohol problems follows variable patterns over time.
- (4) Abstinence bears no necessary relation to rehabilitation.
- (5) Psychological dependence and physical dependence on alcohol are separate and not necessarily related phenomena.

- (6) Continued drinking of large doses of alcohol over an extended period of time is likely to initiate a process of physical dependence.
- (7) The population of individuals with alcohol problems is multi-variant.
- (8) Alcohol problems are typically interrelated with other life problems, especially when alcohol dependence is long established.
- (9) Because of the documented strong relationship between drinking behaviour and environmental influences, emphasis should be placed on treatment procedures that relate to the drinking environment of that person.
- (10) Treatment and rehabilitation services should be designed to provide for continuity of care over an extended period of time. This continuum of services should begin with effective identification and referral mechanisms, extend through acute and chronic phases of treatment and provide follow-up aftercare.
- (11) Evaluative studies of treatment of alcohol dependence must take into account the initial degree of disability, the potential for change, and an inventory of individual dysfunction in diverse life areas, in addition to drinking behaviour. Assessment of improvement should include both drinking behaviour and behaviour in other areas of life function, consistent with presenting problems. Degrees of improvement must also be recognized. Change in all areas of life function should be assessed on an individual basis. This necessitates using pretreatment and posttreatment comparison measures of treatment outcome.

The clinical implications of this model include:

- (1) That treatment of all alcoholics does not have to be the same.
- (2) If alcoholism is a syndrome which is comprised of multiple disabilities, some of which may have existed before the onset of alcohol abuse and others which may be the result of alcohol abuse, then it follows that abstinence would not be the only treatment goal or the only criterion for successful treatment.
- (3) Careful attention to the selection of treatment may improve the effectiveness of the various treatment methods which are presently available. The focus must be on a group of treatments relevant to a set of specific disabilities, with some range of viable alternatives within that group of treatments.

In terms of Pattison's model it is clear that a high anxiety level in an alcoholic in-patient is seen as one of the symptoms which, in conjunction with other symptoms, may have contributed to that individual's abuse of alcohol. Further, if the population of individuals with alcoholic problems is multivariant then it would be expected that there would be considerable variability in the anxiety levels of any alcoholic population. This assumption is in contrast to the assumption that most alcoholics have high anxiety levels, which is implicit in both the tension reduction theory and the social learning theory.

If Pattison's model is applied in the clinical situation then anxiety - if it is a disability for a particular individual with alcohol

problems - should become a treatment focus. Moreover, if Proposition No. 11(above) is taken into account, in which Pattison says that the assessment of improvement should include both drinking behaviour and behaviour in other areas of life function and that degrees of improvement must also be recognized, then there is a need for the assessment of each individual's anxiety level before and after treatment.

As shown above, previous studies on anxiety have attempted to show that anxiety elicits drinking and/or that there is a positive relationship between alcohol consumption and decrease in anxiety. This focus has been at the expense of research in the area of the effects of alcoholism treatment on anxiety. It is significant that research on treatment programmes (Fehr 1976; Cole and Ryback 1976; Keeler 1980) has concentrated on the effect of treatment on abstinence and not on any other variables. This supports Pattison's view that not only has there been a reluctance to abandon the unitary concept of alcoholism but also that the unitary view sees abstinence as the only criterion for successful treatment.

Pattison's perspectives and the previous research regarding the relationship between anxiety and alcoholism converge on the present study and help to bring into focus its purpose; to determine empirically the effect of alcoholism treatment on the anxiety of alcoholic in-patients.

More specifically, the questions asked in this study are:

- (1) Should anxiety be a focus of treatment?
- (2) Is the variance in the anxiety levels of the alcoholic population less than the variance in the anxiety levels of the general population?
- (3) Does anxiety decrease from the time of admission to an alcoholic treatment programme where there is no specific treatment for anxiety to the time of discharge from the programme?
- (4) Does group therapy make any difference to the anxiety levels of the patients?
- (5) Does the length of stay as in in-patient influence the anxiety level of the patients?

1. Selection of measures of anxiety

The Institute for Personality and Ability Testing's anxiety inventory (IPAT) and Taylor's Manifest Anxiety Scale (TMAS) were chosen as the anxiety measures for this study. (See appendices A and B). These particular inventories were chosen because of the ease of which they can be administered and scored, their reliability and the type of anxiety which they measure. Furthermore, normative data are available for both inventories and this provided the writer with the opportunity of comparing the anxiety level of the subjects in this study with that of the general population.

An important feature of both the IPAT and the TMAS is that they measure anxiety proneness, i.e. a predisposition to anxiety, as opposed to "state" anxiety. Most of the items in the inventories call for a self report of a general condition, as evidenced by such phrasings as "frequently" "sometimes" "usually" and "hardly ever". Because trait anxiety is theoretically a constant condition of the individual it should not fluctuate in response to circumstances. The implication of this is that any change in anxiety over a period of time can be attributed to change within the individual and not merely as a reflection of that person's response to the environment.

The disadvantages of any inventory centre around the problems of "response sets" and "social desirability". The latter problem is minimized in a hospital setting because voluntary patients, compared to other groups (for example, people applying for employment) are least likely to be affected by the social desirability factor.

With regard to the problem of the response set, ie. when subjects choose one response category with apparant disregard for the content of items, all the inventories were checked before being scored.

## 2. Selection of subjects

All voluntary patients in the alcoholic ward of a State Psychiatric hospital who were admitted during the period 1 February 1983 - 30 June 1983 were asked to participate in this study, except those who were diagnosed as having significant brain damage and those who were referred to the hospital for treatment of dagga abuse. Of those who were asked to participate there were no refusals. All subjects had been diagnosed as alcoholics by the senior clinical psychologist of the hospital and had defined themselves as such according to their responses to a questionnaire entitled "Are you an acoholic?". (see Appendix C)

## 3. Number of subjects

A total of 41 patients made themselves available for the study. However, 14 patients discharged themselves from the hospital against medical advice during the course of treatment. These 14 patients, henceforth referred to as the "absconders" group, were excluded from the study. The 27 patients (referred to as the "stickers") who stayed in the hospital for the full duration of their treatment, were used as subjects.

## 4. Age and sex of the subjects

The mean age of the subjects was 43 years (range: 25 to 63). The male/-female ratio was 23:4.

### 5. Administration of the inventories

Within three days of admission to the ward the researcher asked the subject to complete both the IPAT and the TMAS in an office in the ward. The second administration took place when the subject indicated to the sister in charge of the ward that he/she felt ready to go home and that further treatment would be of no use to him/her. On the grounds that the request to be discharged indicated that something in the patient's feelings about himself or the hospital had changed, the second administration took place on the same day that the request to leave the hospital was made and not on the day of discharge itself.

The IPAT has both an English and an Afrikaans form, thus each subject completed the inventory in his home language. As the TMAS has not been translated into Afrikaans the Afrikaans-speaking subjects were asked to notify the tester if they had any difficulty understanding the questions.

Care was taken to administer the questionnaires in a relaxed manner as previous research has shown that the tester's anxiety can influence the subjects' scores. (Levitt 1967)

The inventories were scored by hand, using the stencils issued with the scales. The raw data was entered into a computer for statistical analysis. The Statistical Package for the Social Sciences (SPSS) programme was used.

### 6. Selection of subjects for group psychotherapy

A weekly  $1\frac{1}{4}$  hour group psychotherapy session for the alcoholic in-patients

was run by the writer and a colleague during the period 1 February 1983 - 30 June 1983. Criteria for selection to the group were motivation, capacity for insight and commitment to treatment. In order to ensure that these criteria were met, the selection of group members was based on the following: (1) The opinion of the senior clinical psychologist, (2) the opinion of the sister in charge of the ward and (3) a 10-15 minute interview with the patient conducted by the writer and his colleague. It was stressed to all the patients in the ward that attendance of the group was voluntary and that only those who were interested should present themselves at the selection interviews.

#### 7. Size of the group psychotherapy meetings

During the 5 month period two separate groups were run, each for a period of 7 weeks long. Both groups started with 10 members (not including the therapists) but decreased in size from week to week as the members were discharged. The smallest group meeting ever convened contained a total of 6 people.

A total of 14 subjects attended group psychotherapy. 2 of the subjects attended both the first group and part of the second group.

#### 8. Aims of the group

The broad aims of the group were to increase the subjects' awareness of themselves and their environment. Subsumed under this heading was the intention by the therapists to make the subjects see for themselves why they had abused alcohol. To this end the group meetings were partially structured, because it was felt that an unstructured meeting would raise the subjects' anxiety to such a high level that it would

be destructive. By the same token, it was felt that a totally structured group would reinforce any "passivity" or "dependency" needs that may have been present.

9. Allocation of the subjects to groups according to duration of hospitalization

For the purpose of Hypothesis No.5 the subjects were grouped according to the duration of their hospitalization. The number of subjects in each group is given in Table 1 below.

TABLE 1  
DURATION OF HOSPITALIZATION

GROUP	1	2	3
DURATION OF HOSPITALIZATION (DAYS)	0 - 30	31 - 60	60 +
NUMBER OF SUBJECTS	16	6	5

## RESULTS

Hypothesis 1

The mean anxiety scores on admission for the subjects on the IPAT and the TMAS were 39,6 and 28,0 respectively. The means for the normative distribution are 27,1 for the IPAT and 14,5 for the TMAS. In contract to the general population then, the mean anxiety scores for the subjects in this study were considerably higher.

Hypothesis 2

Taylor (1953) does not give the SD for her normative sample. The SD for the IPAT normative sample is 11,4. The SD for subjects in this study on the IPAT was 13,4 which shows that the amount of variability is as much as the variability in the general population.

Hypothesis 3

A comparison of the pretreatment and posttreatment mean anxiety scores is given in Table 2 below. It reveals that on both the IPAT and the TMAS there was a significant decrease in the mean anxiety following treatment

TABLE 2 <sup>a</sup>

COMPARISON OF ANXIETY SCORES BEFORE AND AFTER TREATMENT

MEASURES	PERIODS				df	t
	PRETREATMENT		POSTTREATMENT			
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>		
IPAT	39,6	13,4	36,9	11,6	26	2,09*
TMAS	28,0	10,8	23,2	11,3	26	4,38**

<sup>a</sup>The following note applies to Tables 2 to 7:

\* p <,05

\*\* p <,01

Hypothesis 4

Table 3 below indicates that when the TMAS measure was used as a criterion the decrease in the mean anxiety score was shown to be significantly greater for the subjects who attended group psychotherapy than the decrease in anxiety of the subjects who did not attend group psychotherapy. When the IPAT was used as a measure no significant difference was found.

TABLE 3  
COMPARISON OF DECREASE IN ANXIETY BETWEEN THOSE WHO ATTENDED GROUP PSYCHOTHERAPY AND THOSE WHO DID NOT ATTEND GROUP PSYCHOTHERAPY

MEASURES	DECREASE IN ANXIETY SCORES				df	t
	GROUP THERAPY		NO THERAPY			
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>		
IPAT	-3,7	4,9	-1,6	8,2	25	-0,8
TMAS	-6,9	5,0	-2,5	5,6	25	-2,12*

Hypothesis 5

Subjects who stayed in the hospital for a period ranging between 31-60 days showed a significantly greater decrease in anxiety than those who stayed for a shorter period. This result applied only when the IPAT was used as a measure. No other significant differences were found in any of the other cross-comparisons between any of the groups on either measure.

TABLE 4  
SUMMARY OF ANALYSIS OF VARIANCE OF DURATION OF HOSPITALIZATION (TMAS)

SOURCE	SUM OF SQUARES	df	MEAN SQUARE	F
Between groups	1200,87	2	600,43	3,202
Within groups	7125,36	38	187,50	

TABLE 5

SUMMARY OF ANALYSIS OF VARIANCE OF DURATION OF HOSPITALIZATION (IPAT)

SOURCE	SUM OF SQUARES	df	MEAN SQUARE	F
Between groups	3373,29	2	1686,64	3,844*
Within groups	16671,73	38	438,72	

TABLE 6

TUKEY HSD PROCEDURE: HOMOGENEOUS SUBSETS

SUBSET	I		2	
	1	3	3	2
MEAN	-22,60	-6,40	-6,40	0,66

Post hoc hypothesis (see Discussion below)

The results failed to support the hypothesis that there would be a significant difference between the "stickers" and the "absconders" mean anxiety scores. As Table 7 shows, the mean anxiety score for the absconders was higher than the mean for the stickers on both measures, but these differences were not statistically significant.

TABLE 7

COMPARISON OF ANXIETY SCORES OF ADMISSION BETWEEN THOSE WHO STAYED IN THE HOSPITAL AND THOSE WHO ABSCONDED

MEASURES	ANXIETY ON ADMISSION				df	t
	STICKERS		ABSCONDERS			
	M	SD	M	SD		
IPAT	39,6	13,4	45,2	13,0	39	-1,27
TMAS	28,0	10,8	30,2	10,8	39	-,61

## DISCUSSION

Hypothesis 1

The high anxiety scores on both measures give support to the suggestion that a patient's anxiety should be assessed on admission to an alcoholic treatment programme. The total range of the scores for the subjects was 12 to 47 for the IPAT and 7 to 43 for the TMAS. These large ranges, as well as the large SD's for both measures, indicate that anxiety should certainly have been an immediate treatment focus on admission for some, but not all of the subjects.

The comparison of the mean anxiety scores of the subjects to the mean scores of the general population needs qualification: The IPAT mean score for the general population was derived from an American sample of 935 subjects (530 men and 405 women) whose mean age was 30 years. It is thus with caution that any comparison between the mean for the subjects in this study and the mean for the general population must be made. Different nationalities, ages and male/female ratios must be taken into account. Nevertheless, even if it is assumed that South Africans are more anxious than Americans the fact remains that 6 subjects had scores in sten level 8, 5 in sten level 9 and 5 subjects in sten level 10. Scores in the 8,9 or 10 sten level, according to Cattell and Scheier (1963), indicate that,

"...there is definite psychological morbidity, almost certain to have adverse effects generally on work and social-emotional adjustment. At this sten level, the 85th percentile in anxiety level has been reached or surpassed, and there is definite need of counseling and guidance for situational or characterological problems." (p 13)

To answer to the first question raised in this project, viz. "Should anxiety be a focus of treatment?" it can be said that on the basis of an assessment on admission it is likely that there will be a number of patients for whom anxiety reduction should be a primary treatment goal. Conversely, it is also likely that there will be patients for whom anxiety reduction treatment would be inappropriate.

### Hypothesis 2

The high variability in the anxiety scores gives support to Pattison's proposition (number 7) that the population of individuals with alcohol problems is multivariant. It follows logically that a multivariant population requires multimodal treatment. This being so, Kraft's social anxiety model and the social learning approach (Miller et al 1974) can be accused of having an over-simplified approach to alcoholism which results in a treatment programme which is appropriate only to those alcoholics who have high anxiety.

### Hypothesis 3

The statistically significant results on both measures supported the hypothesis that in-patient treatment for alcoholics has an anxiety reducing effect. On the one hand this result is surprising because anxiety reduction was not a specific treatment focus. Furthermore, 7 of the subjects showed an increase in anxiety on the IPAT inventory and 4 subjects showed an increase on the TMAS. When questioned about how they felt after they had completed the second administration of the questionnaires, these subjects expressed a realistic concern about

how they were going to cope with their lives once they left the secure environment of the hospital. The type of questions they asked themselves were, "Will I resist the temptation to go straight to the off-sales once I am discharged?" and "How will I handle things if and when I'm invited to a party with my old friends?".

Yet if the principles of the social learning model are applied the decrease in anxiety can be seen to be the expected result. If the subjects were using alcohol to cope with anxiety prior to admission to the hospital, then it can be assumed that once admitted to an environment where no alcohol is available, anxiety would be at a high level. During the course of treatment the subject would be forced to find alternative ways of coping with this anxiety, regardless of whether or not the treatment offered in the hospital aimed at reducing anxiety. Throughout the course of his stay in the hospital the subject would become more confident that he could stay sober and that he need not be physically and/or psychologically dependent on alcohol. This confidence in itself would be anxiety reducing and hence a lower score on the second administration of the inventories.

If there is any validity in the rationale given above then it could be argued that the scores obtained on the first administration of the inventories were artificially high because they may have been influenced by the subjects' state anxiety, and that the scores obtained from the second administration were a more valid reflection of the subjects' trait anxiety. An inherent weakness of this study is that a measure of state anxiety was not built into the research design. Without a

measure of state anxiety it becomes a matter of speculation whether or not the decrease in the scores between pre- and posttreatment were untainted by this particular nuisance variable.

The problems surrounding the question of what caused the decrease in the anxiety scores are discussed below.

#### Hypothesis 4

The results of this hypothesis are difficult to interpret because of their paradoxical nature: According to the TMAS scores, subjects who attended group psychotherapy showed a significantly greater decrease in anxiety than those subjects who did not attend the group, yet according to the IPAT scores the difference in the decrease was not significant.

One explanation of this paradox is that although the IPAT and the TMAS are similar in that they both measure trait anxiety (they correlated  $r = .92998$  and  $r = .8389$  on the first and second administrations respectively), they are nevertheless different in some respects. One of these differences is that the IPAT has a "sometimes" column which allows for more choice for the subject who feels uncertain about how a statement may apply to his situation. Put another way, a TMAS statement may elicit a response which is scored negatively whereas a similar statement in the IPAT may elicit an "in between" response which would be scored positively.

Another difference between the two tests which may have contributed to the paradoxical result for this hypothesis is the fact that the TMAS

is not available in Afrikaans. It is of course impossible to determine whether or not every question in the TMAS was fully understood by the 10 Afrikaans speaking subjects in this study.

In sum, the fact that the results for this hypothesis were equivocal means that no definite statement can be made about the effect group psychotherapy had on the subjects' decrease in anxiety during the course of hospitalization.

#### Hypothesis 5

The results for this hypothesis were also paradoxical because when the IPAT was used as a measure there was a greater decrease in anxiety for the subjects who stayed in the hospital for 31 - 60 days compared to those who stayed for a shorter period, yet when the TMAS was used no significant differences for any of the groups were revealed. The possible explanations for the paradoxical results for hypothesis 4, which were given above, may be seen to apply here as well.

The hypothesis that there would be a positive relationship between the duration of hospitalization and the decrease in anxiety was not supported. It was expected that the longer the subject stayed in hospital the greater his decrease in anxiety would be, because of the greater exposure to the anxiety reducing effects of treatment.

The most plausible explanation for this hypothesis not being supported is that those subjects who stayed in the hospital for a period between 31 - 60 days, (which was the period recommended by the hospital staff to all the subjects when they were admitted to the ward), may have had

the greatest potential for therapeutic change in the first place. The fact that any subject stayed in the hospital for more than 60 days could be seen as a sign that he may have felt that he had failed to make any therapeutic progress and was thus keen to stay in the hospital for a longer period. In other words, subjects who were still anxious during the period 31 - 60 days did not request to be discharged.

An implication of the above explanation is that if anxiety has not decreased significantly by the 60th day of hospitalization then a new treatment strategy is indicated.

The above explanation is however mere speculation and it is clear that more empirical research is needed to establish whether or not it has any validity.

In terms of this study it can be said that there are no grounds for suggesting that there is a positive relationship between length of stay in the hospital and the decrease in anxiety.

Post hoc hypothesis that the absconders would have a higher mean anxiety than the stickers

There were two reasons for including this post-hoc hypothesis in this project. Firstly, if it could have been shown that there was a significant difference in the mean anxiety levels of the two groups then there would have been further support for Pattison's proposition that the population of alcoholics is multivariant.

Secondly, if the rationales of the tension reduction theory and the

social learning theory are applied, then it would be expected that those subjects whose anxiety on admission was so high that it was beyond tolerance level would abscond from the hospital at the earliest possible opportunity. In other words, they would be unable to cope with their high anxiety without the use of alcohol and would return to an environment where alcohol is available.

Both of the above rationales lead to the hypothesis that those who absconded would have a higher anxiety level than those who stayed. Yet the comparison of the mean anxiety levels on admission between the two groups showed that although the absconders did have a higher mean than the stickers, this difference was not statistically significant.

It must be concluded then that anxiety was not the only variable which may have influenced the subjects to abscond. Although it may appear that the simplest way to have established the reasons for absconding would have been to have asked the subjects prior to their departure why they were leaving, this was not possible because those who absconded did not comply with the researcher's request that they should contact him before leaving the hospital.

The reasons for absconding thus become a matter of speculation as far as this study is concerned. It could be argued for example, that the critical variable is not so much the anxiety level itself but the ability to cope with this level. Another possibility is that the subject had no desire to be in the hospital in the first place but had admitted himself because of pressure from outside, such as family, friends or em-

ployer.

In terms of the multivariant-multimodal theory though, the fact that 14 of the 41 subjects left the hospital during treatment could be seen as support for the idea that certain treatment programmes are not suitable for alcoholics. There is a general tendency in the psychiatric world to blame the patient when the treatment has not been a success. Patients who abscond are seen as "unmotivated" or "not suitable for therapy". While this may be true in some cases, such a condemnatory attitude on the part of the staff of a hospital does not allow for the possibility that the treatment offered to the patient may have been inappropriate to that particular patient's needs. The fact that 10 of the 14 absconders had IPAT scores which higher than sten 7 (4 in sten 8, 2 in sten 9 and 4 in sten 10) suggests that the treatment of anxiety was indicated. Thus there are some realistic grounds for suggesting that some of the patients may have absconded because one of their primary treatment needs was not met.

#### The practical and theoretical implications of this research

In this writer's opinion the results of this study point clearly to the need for alcoholic's anxiety (both state and trait) to be assessed as soon as possible after admission to an in-patient treatment programme. Without such assessment the possibility exists that high levels of anxiety may be overlooked and that an important treatment focus may be overlooked as a result. Therapy without assessment is analogous to the blind leading the blind. It is quite possible that in many cases treatment for anxiety should precede treatment for

drinking behaviour per se.

Assuming that anxiety treatment is indicated, steps must be taken by the supervisors of the treatment programme to see that the appropriate therapy is implemented and monitored. One of the many ways of monitoring the success or failure of such therapy would be to re-administer the same measure which was used on admission and to compare the results, as was done in this study. The patient's score on the second administration of the inventory, in conjunction with other data and observations, could also be used as an indication of his readiness to be discharged.

The major theoretical implication of this study is the support it gives to Pattison's argument that alcoholism is a variable syndrome and not a unitary concept. The large variability in the anxiety scores of the subjects as well as the high means suggest that for some alcoholics anxiety is one of the symptoms which forms part of their particular syndrome, but for other subjects it is not.

## FURTHER RESEARCH

In the introduction to this project the observation was made that the questions asked by a researcher are usually predicated upon his underlying assumptions about the nature of the problem. It is axiomatic that if a researcher believes that the problem is simple then he will expect a simple answer. Traditional research on the aetiology and treatment of alcoholism may be accused of making false assumptions which has resulted, *inter alia*, in large gaps in our knowledge. This section of this project offers some suggestions about how these gaps may be filled.

The results of this project showed that the mean anxiety of the subjects decreased during the course of hospitalization in spite of the fact that no specific anxiety reduction treatment was offered by the hospital.

The question thus arises: What caused the decrease? If this can be answered then future treatment could be more specific and, presumably, achieve better results. Parihar's (1982) statement is pertinent here. He writes,

"The controversy and confusion that surround alcoholism indicates the desirability of a systematic program of research that may attempt to identify and isolate critical treatment outcome variables...When a comprehensive program offers an array of services, it is impossible to decipher which element of the programme has been instrumental in

the patient's recovery or lack of it. Since this relationship remains fuzzy, no effective judgement can be made about which elements to emphasize and which to downplay, or which to drop, and under what conditions." (p338)

One way of going about Parihar's suggestion of identifying the critical treatment outcome variables would be to select specific treatments for particular patients and to find out from them before they are discharged which treatments they felt were the most beneficial.

Future research on the relationship between anxiety and alcoholism should not fall into the trap of oversimplification. It was pointed out in the Introduction above that researchers who attempted to provide support for the tension-reduction theory often made use of one measure of anxiety only, usually a self report inventory, in order to simplify the methodology. It is a weakness of this project too, that self report inventories were the only measures used. Given that both anxiety and alcoholism are complex phenomena, it is clear that future research on the relationship between the two should make use of multiple measures and in so doing demonstrate the complexity of the relationship.

Another weakness of this project was the lack of control of nuisance variables. If this research were to be repeated then it would be better to obtain anxiety scores from a control group of subjects who had had problems associated with alcohol but who were now not drinking, and to compare these scores with those from the experimental group. Such a comparison may provide some clues about the extent

to which state anxiety and anxiety resulting from withdrawal from alcohol influence the responses to the inventories.

Finally, it is this writer's opinion that future research which attempts to challenge or support the propositions which make up Pattison's multivariate multimodal model hold out the best hopes for furthering our understanding of a complex problem.

## CONCLUSIONS

The main conclusion that can be drawn from this study is that there is a need to assess each individual's anxiety level on admission to an alcoholic in-patient treatment programme. Without such assessment (which need not necessarily involve the use of the IPAT or the TMAS) the possibility exists that the patient's most urgent treatment need will not be met, which could result in that patient's rejection of the whole treatment programme.

Implicit in the above is the suggestion that alcoholic treatment programmes should include specific treatment for anxiety. The second conclusion, viz. that this treatment should be offered to those patients for whom it is indicated, qualifies this suggestion. The results of this study showed that it is incorrect to assume that all alcoholics have high anxiety and that all should consequently receive treatment aimed at reducing anxiety.

Another conclusion which comes out of this project is that group psychotherapy and the length of stay in the hospital did not significantly affect the decrease in anxiety which occurred between the time of admission and the time of discharge. Because the samples used were small, this conclusion must be restricted to this study. Further research is necessary to clarify the relationship between these variables and the decrease in anxiety.

Finally, although this study showed that anxiety levels decreased during the course of hospitalization, it was not possible to isolate the variables which may have contributed to this decrease. It is therefore

concluded that more research is needed to investigate which aspects of a treatment programme have the most anxiety reducing effect so that these aspects may be incorporated into a treatment programme in a formal manner.

APPENDICES



HUMAN SCIENCES RESEARCH COUNCIL
South African Institute for Psychological and Psychometric Research

SELF ANALYSIS FORM

618/2

NAME ..... TODAY'S DATE .....
Surname First name

SEX ..... AGE ..... SCHOOL/UNIVERSITY .....
(Write M or F) (Nearest Year)

OTHER FACTS .....
(Address, occupation, etc., as instructed)

Inside this booklet you will find forty questions, dealing with difficulties that most people experience at one time or another. It will help a lot in self-understanding if you mark YES, NO, etc., to each, frankly and truthfully, to describe any problems you may have.

Start with the two simple examples just below, for practice. As you see, each inquiry is actually put in the form of a sentence. By putting a cross, X, in one of the three boxes on the right you show how it applies to you. Make your marks now.

1. I enjoy walking ..... Yes Occasion- ally No
[ ] [ ] [ ]

A middle box is provided for when you cannot definitely say YES or NO. But use it as little as possible.

2. I would rather spend an evening: A In between B
(A) talking to people, (B) at a movie ..... [ ] [ ] [ ]

About half the items inside end in A and B choices like this. B is always on the right. Remember, use the "In between" or "Uncertain" box only if you cannot possibly decide on A or B.

Now:

- 1. Make sure you have put your name, and whatever else the examiner asks, in the correct place at the top of this page.
2. Never pass over an item but give some answer to every single one. Your answers will be entirely confidential.
3. Do not spend time puzzling over them. Answer each one immediately, the way you want to at this moment (not last week, or usually). You may have answered questions like this before; but answer these as you feel now.

Most people finish in five minutes; some, in ten. Hand in this form as soon as you are through with it, unless told to do otherwise. As soon as the examiner signals or tells you to, turn the page and begin.

STOP HERE — WAIT FOR SIGNAL

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Second South African Edition:
First Printing
1980

APPENDIX A

1. I find that my interests, in people and amusements, tend to change fairly rapidly .....	True In between False	Do not write this column
2. If people think poorly of me I can still go on quite happily and without worrying too much .....	True In between False	
3. I like to wait till I am sure that what I am saying is correct, before I put forward an argument .....	Yes In between No	
4. I am inclined to let my actions get influenced by feelings of jealousy .....	Sometimes Seldom Never	Q <sub>3</sub> (-)
5. If I had my life to live over again I would: (A) plan very differently, (B) want it the same .....	A In between B	
6. In general, I admire my parents .....	Yes In between No	C(-)
7. I find it hard to "take 'no' for an answer", even when I know what I ask is impossible .....	True In between False	
8. I doubt the honesty of people who are more friendly than I would naturally expect them to be .....	True In between False	
9. In demanding and enforcing obedience my parents (or guardians) were: (A) always very reasonable, (B) often unreasonable .....	A In between B	L
10. I need my friends more than they seem to need me .....	Rarely Sometimes Often	
11. I feel sure that I could "pull myself together" in an emergency .....	Always Often Seldom	
12. As a child I was afraid of the dark .....	Often Sometimes Never	
13. People sometimes tell me that I show my excitement in voice and manner too obviously .....	Yes Uncertain No	O
14. If people take advantage of my friendliness I: (A) soon forget and forgive, (B) resent it and hold it against them .....	A In between B	
15. I find myself upset rather than helped by the kind of personal criticism that many people make .....	Often Occasion-ally Never	
16. Often I get angry with people too quickly .....	True In between False	
17. I feel restless as if I want something but do not know what .....	Very Rarely Sometimes Often	
18. I sometimes doubt whether people I am talking to are really interested in what I am saying .....	True In between False	
19. I have always been free from any vague feelings of ill-health, such as funny pains in my head, stomach or heart .....	True Uncertain False	Q <sub>4</sub>
20. In discussion with some people, I get so annoyed that I can hardly trust myself to speak .....	Sometimes Rarely Never	

Continue on next page.

A SCORE

Through getting "worked-up" I use up more energy than most people in getting things done .....	True <input type="checkbox"/>	Uncertain <input type="checkbox"/>	False <input type="checkbox"/>	Do not write in this column
I make a point of not being absent-minded or forgetful .....	True <input type="checkbox"/>	Uncertain <input type="checkbox"/>	False <input type="checkbox"/>	
However difficult and unpleasant the obstacles, I always stick to my original intentions .....	Yes <input type="checkbox"/>	In between <input type="checkbox"/>	No <input type="checkbox"/>	Q <sub>3</sub> (-)
I tend to get over-excited and "rattled" in upsetting situations .....	Yes <input type="checkbox"/>	In between <input type="checkbox"/>	No <input type="checkbox"/>	
I occasionally have vivid dreams that disturb my sleep .....	Yes <input type="checkbox"/>	In between <input type="checkbox"/>	No <input type="checkbox"/>	C(-)
I always have enough energy when faced with difficulties .....	Yes <input type="checkbox"/>	In between <input type="checkbox"/>	No <input type="checkbox"/>	
I sometimes find myself counting things for no particular reason .....	True <input type="checkbox"/>	Uncertain <input type="checkbox"/>	False <input type="checkbox"/>	L
Most people are a little queer mentally, though they do not like to admit it .....	True <input type="checkbox"/>	Uncertain <input type="checkbox"/>	False <input type="checkbox"/>	
If I make an awkward social mistake I can soon forget it .....	Yes <input type="checkbox"/>	In between <input type="checkbox"/>	No <input type="checkbox"/>	O
I feel grumpy and just do not want to see people: (A) occasionally, (B) rather often .....	A <input type="checkbox"/>	In between <input type="checkbox"/>	B <input type="checkbox"/>	
I am brought almost to tears by having things go wrong .....	Never <input type="checkbox"/>	Very Rarely <input type="checkbox"/>	Sometimes <input type="checkbox"/>	Q <sub>4</sub>
In the midst of social groups I am nevertheless sometimes overcome by feelings of loneliness and worthlessness .....	Yes <input type="checkbox"/>	In between <input type="checkbox"/>	No <input type="checkbox"/>	
I wake in the night and, through worry, have some difficulty in sleeping again .....	Often <input type="checkbox"/>	Sometimes <input type="checkbox"/>	Never <input type="checkbox"/>	B SCORE
My spirits generally stay high no matter how many troubles I meet .....	Yes <input type="checkbox"/>	In between <input type="checkbox"/>	No <input type="checkbox"/>	
I sometimes feel guilty or very sorry over quite small matters .....	Yes <input type="checkbox"/>	In between <input type="checkbox"/>	No <input type="checkbox"/>	
My nerves get on edge so that certain sounds, e.g. a screechy hinge, are unbearable and give me the shivers .....	Often <input type="checkbox"/>	Sometimes <input type="checkbox"/>	Never <input type="checkbox"/>	
If something badly upsets me I generally calm down again quite quickly .....	True <input type="checkbox"/>	Uncertain <input type="checkbox"/>	False <input type="checkbox"/>	
I tend to tremble or perspire when I think of a difficult task ahead .....	Yes <input type="checkbox"/>	In between <input type="checkbox"/>	No <input type="checkbox"/>	
I usually fall asleep quickly, in a few minutes, when I go to bed .....	Yes <input type="checkbox"/>	In between <input type="checkbox"/>	No <input type="checkbox"/>	
I sometimes get very excited or "worked-up" as I think about things that have happened recently .....	True <input type="checkbox"/>	Uncertain <input type="checkbox"/>	False <input type="checkbox"/>	

STOP HERE. BE SURE YOU HAVE ANSWERED EVERY QUESTION.

**RAAD VIR GEESTESWETENSKAPLIKE NAVORSING**

Instituut vir Psigologiese en Edumetriese Navorsing

**SELFONDERSOEK VRAELYS**

617/2

NAAM ..... VANDAG SE DATUM .....

Van                      Voornaam

GESLAG ..... OUDERDOM ..... SKOOL/UNIVERSITEIT .....

(Skryf M of V)                      (Naaste jaar)

ANDER GEGEWENS .....

(Adres, beroep, ens., soos versoek)

In hierdie boekie is veertig vrae in verband met probleme waarvoor die meeste mense op een of ander tyd te staan kom. Dit sal jou baie help om jouself te verstaan as jy elke vraag eerlik en reguit JA, NEE, ens., beantwoord, om die probleme wat jy mag hê, te beskrywe.

Om te oefen, begin met die twee eenvoudige voorbeelde hieronder. Soos jy sien, is die beskrywing eintlik in die vorm van 'n sin. Deur 'n kruisie, X, te maak in een van die drie hokkies aan die regterkant sê jy hoe dit op jou van toepassing is. Maak nou jou kruisies.

	Ja	Soms	Nee
1. Ek geniet dit om te stap .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Die middelste hokkie kan jy gebruik as jy glad nie JA of NEE kan sê nie, maar gebruik dit so min as moontlik.

2. Ek sou verkies om 'n aand deur te bring deur:	A	Tussen	B
(A) met mense te gesels,			
(B) na die bioskoop te gaan .....	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

By omtrent die helfte van die vrae hierbinne moet jy kies tussen (A) of (B). B is altyd aan die regterkant. Onthou om net die "tussenin"- of "nie seker nie"-hokkie te gebruik as jy glad nie kan besluit tussen (A) en (B) nie.

Nou:

1. Maak seker dat jy jou naam en die ander besonderhede wat die toetsafnemer gevra het, op die regte plek bo aan hierdie bladsy geskryf het.
2. Moenie 'n vraag oorslaan nie, beantwoord elkeen. Jou antwoorde sal as volkome vertroulik beskou word.
3. Moenie te lank dink oor 'n antwoord nie. Beantwoord elke vraag dadelik, soos jy nou op hierdie oomblik (nie soos verlede week of gewoonlik nie) voel. Miskien het jy al voorheen sulke vrae beantwoord, maar beantwoord hierdie soos jy nou voel.

Die meeste mense is binne vyf tot tien minute klaar. Handig die vorm in sodra jy klaar is, behalwe as jy gevra word om dit nie te doen nie.

Sodra die toetsafnemer sê of wys dat jy kan begin, blaai om en begin dadelik.

**WAG NOU VIR 'N TEKEN VAN DIE TOETSAFNEMER.**

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Alle regte voorbehou

Tweede Suid-Afrikaanse Uitgawe:

Tweede Druk

1982

Gedruk deur: V&R Drukkery 1982

## APPENDIX A (contd)

Ek vind dat my belangstellings — in mense en vermaaklikhede- geneig is om taamlik vinnig te verander .....	Waar <input type="checkbox"/>	Tussenin <input type="checkbox"/>	Onwaar <input type="checkbox"/>	Moenie in hie die ko lom skryf nie
Al dink mense nie baie van my nie, kan ek nogtans blymoedig voortgaan sonder dat dit my baie ontstel .....	Waar <input type="checkbox"/>	Tussenin <input type="checkbox"/>	Onwaar <input type="checkbox"/>	
Ek verkies om te wag tot ek seker is dat wat ek sê heeltemaal reg is voor ek 'n argument aanknoop	Ja <input type="checkbox"/>	Tussenin <input type="checkbox"/>	Nee <input type="checkbox"/>	Q <sub>3</sub> (-)
Gevoelens van jaloesie is geneig om my handelwyse te beïnvloed	Soms <input type="checkbox"/>	Selde <input type="checkbox"/>	Nooit <input type="checkbox"/>	
As ek my lewe van vooraf sou kon begin, sou ek: (A) dit heel anders beplan, (B) dit weer dieselfde wou hê	A <input type="checkbox"/>	Tussenin <input type="checkbox"/>	B <input type="checkbox"/>	C(-)
Oor die algemeen bewonder ek my ouers	Ja <input type="checkbox"/>	Tussenin <input type="checkbox"/>	Nee <input type="checkbox"/>	
Ek vind dit moeilik om tevrede te wees met "nee" vir 'n antwoord al weet ek dat wat ek vra, onmoontlik is	Waar <input type="checkbox"/>	Tussenin <input type="checkbox"/>	Onwaar <input type="checkbox"/>	L
Ek twyfel aan die eerlikheid van mense wat vriendeliker is as wat ek verwag hulle behoort te wees .....	Waar <input type="checkbox"/>	Tussenin <input type="checkbox"/>	Onwaar <input type="checkbox"/>	
Wanneer my ouers (of pleegouers) gehoorsaamheid vereis en afgedwing het, was hulle: (A) altyd baie redelik, (B) dikwels onredelik	A <input type="checkbox"/>	Tussenin <input type="checkbox"/>	B <input type="checkbox"/>	O
Dit lyk of ek my vriende meer nodig het as hulle vir my	Selde <input type="checkbox"/>	Soms <input type="checkbox"/>	Dikwels <input type="checkbox"/>	
Ek voel seker dat ek myself sal kan regruk as die nood dreig	Altyd <input type="checkbox"/>	Dikwels <input type="checkbox"/>	Selde <input type="checkbox"/>	Q <sub>4</sub>
As 'n kind was ek bang vir die donker	Dikwels <input type="checkbox"/>	Soms <input type="checkbox"/>	Nooit <input type="checkbox"/>	
Mense sê soms dat ek my opgewondenheid te duidelik wys in my handelwyse of wanneer ek praat .....	Ja <input type="checkbox"/>	Nie seker nie <input type="checkbox"/>	Nee <input type="checkbox"/>	Q <sub>4</sub>
As mense misbruik maak van my vriendelikheid: (A) vergeet en vergewe ek dit gou (B) neem ek hulle kwalik en voel ek beledig .....	A <input type="checkbox"/>	Tussenin <input type="checkbox"/>	B <input type="checkbox"/>	
Die persoonlike kritiek wat mense soms lewer, ontstel my eerder as om my te help	Dikwels <input type="checkbox"/>	Soms <input type="checkbox"/>	Nooit <input type="checkbox"/>	Q <sub>4</sub>
Dikwels word ek te gou kwaad vir mense	Waar <input type="checkbox"/>	Tussenin <input type="checkbox"/>	Onwaar <input type="checkbox"/>	
Ek voel rusteloos asof ek iets wil hê maar nie weet wat nie	Baie selde <input type="checkbox"/>	Soms <input type="checkbox"/>	Dikwels <input type="checkbox"/>	Q <sub>4</sub>
Ek twyfel soms of die mense met wie ek praat, regtig belangstel in wat ek sê .....	Waar <input type="checkbox"/>	Tussenin <input type="checkbox"/>	Onwaar <input type="checkbox"/>	
Ek het nog nooit aan sulke vae tekens van slegte gesondheid gely soos snaakse pyne in my kop, maag of hart nie .....	Waar <input type="checkbox"/>	Nie seker nie <input type="checkbox"/>	Onwaar <input type="checkbox"/>	Q <sub>4</sub>
Wanneer ek met sommige mense iets bespreek, vererg ek my so dat ek myself skaars kan vertrou om te praat	Soms <input type="checkbox"/>	Selde <input type="checkbox"/>	Nooit <input type="checkbox"/>	

A-TELLING

Gaan aan na volgende bladsy.

APPENDIX A (contd)

Deurdat ek opgewonde raak, gebruik ek meer energie as die meeste ander mense om dinge te doen

Waar	Nie seker nie	Onwaar
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Moens  
in h  
die  
lom  
skry  
nie

Ek lê my daarop toe om nie verstrooid of vergeetagtig te wees nie

Waar	Nie seker nie	Onwaar
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Al is daar baie onaangename struikelblokke, hou ek altyd by my oorspronklike planne

Ja	Tussenin	Nee
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Ek is geneig om ooropgewonde te raak in ontstellende situasies

Ja	Tussenin	Nee
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Ek het soms baie duidelike drome wat my slaap versteur

Ja	Tussenin	Nee
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Ek het altyd genoeg energie wanneer ek met moeilikhede te kampe het

Ja	Tussenin	Nee
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Ek voel soms gedwing om dinge te tel sonder dat ek weet waarom ek dit doen

Waar	Nie seker nie	Onwaar
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q3(-)

Die meeste mense is bietjie gek, al sou hulle dit nie graag erken nie

Waar	Nie seker nie	Onwaar
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

As ek 'n lomp sosiale flater begaan het, kan ek dit gou weer vergeet

Ja	Tussenin	Nee
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Ek voel knorrig en wil net nie mense sien nie: (A) somtyds, (B) taamlik dikwels

A	Tussenin	B
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

C(-)

Ek voel of ek kan huil wanneer dinge skeef loop

Nooit	Baie selde	Soms
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Selfs tussen mense voel ek tog soms baie alleen en minderwaardig

Ja	Tussenin	Nee
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Ek word snags wakker en deurdat ek my bekommer, kan ek nie gou weer slaap nie

Dikwels	Soms	Nooit
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

L

Ek is gewoonlik opgeruimd al het ek baie moeilikhede

Ja	Tussenin	Nee
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Ek voel soms skuldig of spyt oor klein dingetjies

Ja	Tussenin	Nee
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

My senuwees raak oorspanne sodat sekere geluide, bv. 'n skarnier wat kraak, onuithoubaar is en ek gil

Dikwels	Soms	Nooit
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

O

As iets my hewig ontstel het, kan ek gewoonlik gou weer kalm word

Waar	Nie seker nie	Onwaar
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Ek is geneig om te bewe of te sweet wanneer ek dink aan 'n moeilike taak wat wag

Ja	Tussenin	Nee
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Ek raak gewoonlik gou (binne 'n paar minute) aan die slaap wanneer ek bed toe gaan

Ja	Tussenin	Nee
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Q4

Ek raak soms baie opgewonde en gespanne as ek oor dinge dink wat kort gelede gebeur het

Waar	Nie seker nie	Onwaar
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

U HIER OP. MAAK SEKER DAT JY ELKE VRAAG BEANTWOORD HET.

B-TELLING

APPENDIX B

Name ..... Sex ..... Age .....

	True	False
1. I do not tire quickly .....	_____	_____
2. I am often sick to my stomach .....	_____	_____
3. I am about as nervous as other people .....	_____	_____
4. I have very few headaches .....	_____	_____
5. I work under a great deal of strain .....	_____	_____
6. I cannot keep my mind on one thing .....	_____	_____
7. I worry over money and business .....	_____	_____
8. I frequently notice my hand shakes when I try to do something .....	_____	_____
9. I blush as often as others .....	_____	_____
10. I have diarrhea ("the runs") once a month or more ..	_____	_____
11. I worry quite a bit over possible troubles .....	_____	_____
12. I practically never blush .....	_____	_____
13. I am often afraid that I am going to blush .....	_____	_____
14. I have nightmares every few nights .....	_____	_____
15. My hands and feet are usually warm enough .....	_____	_____
16. When embarrassed I often break out in a sweat which is very annoying .....	_____	_____
17. I sweat very easily even on cool days .....	_____	_____
18. I do not often notice my heart pounding and I am seldom short of breath .....	_____	_____
19. I feel hungry almost all the time .....	_____	_____
20. Often my bowels don't move for several days at a time .....	_____	_____
21. I have a great deal of stomach trouble .....	_____	_____
22. At most times I lose sleep over worry .....	_____	_____
23. My sleep is restless and disturbed .....	_____	_____
24. I often dream about things I don't like to tell other people .....	_____	_____
25. I am easily embarrassed .....	_____	_____
26. My feelings are hurt easier than most people .....	_____	_____
27. I often find myself worrying about something .....	_____	_____
28. I wish I could be as happy as others .....	_____	_____
29. I am usually calm and not easily upset .....	_____	_____
30. I cry easily.....	_____	_____
31. I feel anxious about something or someone almost all of the time.....	_____	_____
32. I am happy most of the time.....	_____	_____
33. It makes me nervous to have to wait.....	_____	_____
34. At times I am so restless that I cannot sit in a chair for very long.....	_____	_____
35. Sometimes I become so excited that I find it hard to get to sleep.....	_____	_____
36. I have often felt that I have faced so many difficulties that I could not overcome them.....	_____	_____
37. At times I have been worried beyond reason about something that really did not matter.....	_____	_____
38. I do not have as many fears as my friends.....	_____	_____

APPENDIX B (contd)

- 39. I have been afraid of things or people that I know could not hurt me..... \_\_\_\_\_
- 40. I certainly feel useless at times..... \_\_\_\_\_
- 41. I find it hard to keep my mind on a task or job..... \_\_\_\_\_
- 42. I am more self-conscious than most people..... \_\_\_\_\_
- 43. I am the kind of person that takes things hard..... \_\_\_\_\_
- 44. I am a very nervous person..... \_\_\_\_\_
- 45. Life is often a strain for me..... \_\_\_\_\_
- 46. At times I think I am no good at all..... \_\_\_\_\_
- 47. I am not at all confident of myself..... \_\_\_\_\_
- 48. At times I feel that I am going to crack up..... \_\_\_\_\_
- 49. I don't like to face a difficulty or make an important decision..... \_\_\_\_\_
- 50. I am very confident of myself..... \_\_\_\_\_

APPENDIX C

ARE YOU AN ALCOHOLIC?

To answer this question ask yourself the following questions and answer them as honestly as you can.

- |   | <u>YES</u> | <u>NO</u> |
|---|------------|-----------|
| 1. Do you lose time from work due to drinking?                                |            |           |
| 2. Is drinking making your home life unhappy?                                 |            |           |
| 3. Do you drink because you are shy with other people?                        |            |           |
| 4. Is drinking affecting your reputation?                                     |            |           |
| 5. Have you ever felt remorse after drinking?                                 |            |           |
| 6. Have you gotten into financial difficulties?                               |            |           |
| 7. Do you turn to lower companions and an inferior environment when drinking? |            |           |
| 8. Does your drinking make you careless of your family's welfare?             |            |           |
| 9. Has your ambition decreased since drinking?                                |            |           |
| 10. Do you crave a drink at a definite time daily?                            |            |           |
| 11. Do you want a drink the next morning?                                     |            |           |
| 12. Does drinking cause you to have difficulty sleeping?                      |            |           |
| 13. Has your efficiency decreased since drinking?                             |            |           |
| 14. Is drinking jeopardising your job or business?                            |            |           |
| 15. Do you drink to escape from worries or trouble?                           |            |           |
| 16. Do you drink alone?   |            |           |
| 17. Have you ever had a complete loss of memory as a result of drinking?      |            |           |
| 18. Has your physician ever treated you for drinking?                         |            |           |
| 19. Do you drink to build up yourself confidence?                             |            |           |
| 20. Have you ever been to a hospital or institution on account of drinking?   |            |           |

If you have answered YES to any one of the questions, there is a definite warning that you may be an alcoholic.

If you have answered YES to any two the chances are that you are an alcoholic.

(The above Test Questions are used by the John Hopkins University Hospital, Baltimore, Md., in deciding whether or not a patient is an alcoholic)

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