

https://dspace.org/

Suicide attempts : a retrospective study.

Jeenah, Fatima Yasmien

1991
https://hdl.handle.net/10539/25528

Downloaded from a DSpace repository. https://dspace.org/

SUICIDE ATTEMPTS: A RETROSPECTIVE STUDY

FATIMA YASMIEN JEENAH
MBChB (NATAL)

Johannesburg

September 1991

SUICIDE ATTEMPTS: A RETROSPECTIVE STUDY

FATIMA YASHIEN JEENAH

MBChB (NATAL)

A Dissertation Submitted to the Faculty of Medicine, University of the Witwatersrand, Johannesburg, in part fulfilment of the requirements for the Degree of Master of Medicine in Psychiatry.

Johannesburg

September 1991

DECLARATION

I declare that this dissertation is my own work. It is being submitted for the degree of Master of Medicine in Psychiatry to the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination to any other University.

References which I have used have been duly acknowledged.

F Y JEENAH

September 1991

This work is dedicated to the people of Soweto

who made this study possible.

ACKNOWLEDGEMENTS

I wish to acknowledge the following people :-

Professor Hart, my supervisor, for his patience and support through the long period it took to complete this dissertation.

Plumpie Saiede and Connie Makoola, the nursing sisters in the Psychiatric Department, for their help in following up the patients after discharge.

Dr C. Allwood, for permission to review the psychiatric files.

My parents for taking care of my children.

To my husband, for his continuous support.

---oOo---

TABLE OF CONTENT

		Page
Title Page		i
Declaration		ii
Dedication		iii
Acknowledgements		iv
Table of Contents		v
List of Tables		viii
List of Diagrams		x
Abstract		1
Objectives		3
CHAPTER 1: LITERATURE REVIEW		4
1.1	Introduction	4
1.2	Terminology	5
1.3	Definition	6
1.4	Epidemiology	8
1.5	Explanatory Theories of Suicide attempt in the Black Population	10
1.6	Biology of Suicide and Suicide Attempt	16
1.7	Psychological Aspects of Suicide Attempt	19
1.8	Risk Factors Associated with Suicide Attempt	23
1.8.1	Age and Sex	24
1.8.2	Socio-Economic Characteristics	28
1.8.3	Alcohol	30
1.9	Clinical Aspects	32
1.9.1	Affective Disorders	33

1.9.2	Schizophrenia	35
1.9.3	Personality Disorders	37
1.9.4	Neuroses	38
1.9.5	Epilepsy	39
1.10	Treatment and Prevention	40
CHAPTER 2: THE STUDY		43
2.1	Design	43
2.2	Sample	43
2.3	Method	44
2.3.1	Information in Data Schedule	45
2.4	Statistical Analyses	46
2.5	The Results	47
2.5.1	Age and Sex	47
2.5.2	Month of Attempt	48
2.5.3	Method of Attempt	49
2.5.4	Agent Ingested	54
2.5.5	Previous Suicide Attempt and Past Psychiatric History	56
2.5.6	Family History	60
2.5.7	Probability of Discovery	61
2.5.8	Alcohol and Drugs	64
2.5.9	Precipitating Factors	65
2.5.10	Psychiatric Diagnoses	66
2.5.11	Pharmacological Treatment	70
2.5.12	Referral to Social Services	72
2.5.13	Follow-up	74
2.5.14	Re-evaluation	75

CHAPTER 3: DISCUSSION 78

CHAPTER 4: CONCLUSION 86

REFERENCES 89

APPENDIX I 99

---oOo---

LIST OF TABLES

		Page
TABLE I:	Relationship between Age and Gender of Suicide Attempters	48
TABLE II:	Seasonal Variation in Suicide Attempters	49
TABLE III:	Relationship between Method of Attempt and Gender and Mean Age	53
TABLE IV:	Relationship of Agent Ingested by Frequency, Gender and Mean Age	55
TABLE V:	Relationship between Number of Suicide Attempts and Mean Age	59
TABLE VI:	Relationship of Probability of Discovery to Gender and Mean Age	63
TABLE VII:	The Relationship of Method of Attempt to Probability of Discovery	64
TABLE VIII:	The Relationship between Precipitating Factors, Frequency and Gender	66
TABLE IX:	The Relationship of Diagnoses to Gender and Mean Age	68
TABLE X:	The Relationship of Diagnoses to Method of Attempt	69

TABLE XI: The Relationship of Diagnoses to Past Psychiatric History 70

TABLE XII: The Relationship of Pharmacological Treatment to Diagnoses 71

---oOo---

LIST OF DIAGRAMS

		Page
DIAGRAM 1:	Method of Attempt and Their Frequency	51
Diagram 2:	Method of Attempt in Males and Females	52
Diagram 3:	Number of Suicide Attempts and Their Frequency	57
Diagram 4:	Frequency of Suicide Attempts in Males and Females	58
Diagram 5:	Probability of Discovery of Suicide Attempt	62
Diagram 6:	Referral to Social Services	73
Diagram 7:	Re-evaluation of Suicide Attemptors	77

---oOo---

ABSTRACT

A descriptive study of 130 suicide attempts seen at the psychiatric department, Baragwanath Hospital during the six month period 01/01/89 to 30/06/89 is presented.

Demographic, clinical and psychosocial data were reviewed and discussed. A follow-up assessment was done six months after the suicide attempt.

The patients who had attempted suicide made up 10% of the patients seen at the psychiatric department. Seventy six percent of the patients that attempted suicide were under the age of 30 years. The male:female ratio was 1:2. The ingestion of chemicals (65%) was the predominant method used. The major predisposing factor was interpersonal conflict (70%).

It was found that these patients were less likely than whites to have previously self-poisoned, have received previous psychiatric treatment, or be suffering from depression or a personality disorder.

Sixty nine percent of the patients were given follow-up appointments. There was a poor follow-up rate (25%).

A recurrence of suicidal behaviour within six months was 4%.

OBJECTIVES

The principal objective of the study was to document the various parameters that affect patients who had made a suicide attempt in order to indicate those at greatest risk of parasuicide. The study was carried out at the psychiatric department of Baragwanath Hospital between 01/01/89 and 30/06/89.
Information was obtained by reviewing the patients hospital psychiatric files.
The parameters looked at were age, sex, month of attempt, method of attempt and agent ingested in the case of self poisoning, probability of discovery, precipitating factors, previous suicide attempt, history of psychiatric di order, and a history of recent substance abuse.

A second objective was to review the diagnoses given and to compare this to that found in other studies.

A third objective was to review the treatment modalities offered to the patients who made a suicide attempt and to assess the follow-up rate.

A fourth objective was to follow-up the patients for a minimum period of six months after their suicide attempt to establish the recurrence rate.

CHAPTER 1

LITERATURE REVIEW

1.1 INTRODUCTION

Suicide like behaviour has become a major public health issue in recent years. Patients who take overdoses or deliberately injure themselves pose considerable demands on busy medical and psychiatric services in general hospitals. A large number of these patients are admitted to hospital beds which are barely sufficient in number to cope with patients admitted for other medical conditions. The social and psychiatric problems of people who attempt suicide require the attention of psychiatrists, psychologists, social workers, and other staff who should assess these patients and provide help after discharge.

Hassanyeh et al (1981) felt that because overdoses make such demands on health services it constitutes a major challenge in prophylaxis.

1.2 TERMINOLOGY

The major problem that arises in the discussion of non-fatal self-destructive behaviour is that of terminology. Traditionally the term "attempted-suicide" has been used. This has lead to a great deal of confusion amongst professionals and health workers since most patients are not in fact "attempting suicide" in the literal sense of trying to kill themselves. As such it is therefore a misnomer.

Several other terms have been introduced as alternatives. These include, for example, "parasuicide", "pseudocide", "deliberate self-harm", "failed suicide", "completed suicide" and "accidental suicide". All have their drawbacks :"parasuicide" because it also implies suicidal intentions; "pseudocide" because it suggests mimicry of suicide; and "deliberate self-harm" because it implies that physical harm always occurs; "failed suicide" there is always a doubt whether the attempt was attention seeking, accidental or premeditated and should be confined to those with intent to kill themselves; "completed suicide" because it does not differentiate planned suicides from accidental suicides; and "accidental suicide" because one can not be sure if the act was deliberate or an error. Generally their are no strong feelings about the use of one term as opposed to another.

1.3 DEFINITION

Various definitions of suicide have been postulated. Baechler (1979) quotes a number of definitions.

DURKHEIM in 1951: "The term suicide is applied to all cases of death resulting directly or indirectly from a positive or negative act of the victim himself, which he knows will produce this result". This definition has its restrictions because it does not include attempted suicides or cases where the person who committed suicide dies by another hand e.g. the person who goes to war searching for death undertakes a task knowing it is fatal..

HALBWACH in 1930: By suicide one means every case of death that results from an act undertaken by the victim himself with the intention, or with a view to, killing himself, and which is not a sacrifice. This definition also excludes attempted suicides and suicide by another hand. It is distinct from Durkheim's in that it excludes sacrificial suicide.

DR ACHILLE-DELMAS in 1932: Suicide is the act by which a fully competent man kills himself; he is able to live but he chooses, without any moral obligation, to die. This definition eliminates anything tentative (kills himself). It also excludes suicidal persons who are demented and accidental suicides that result from errors (fully competent).

BAECHLER (1979): Suicide denotes all behaviour that seeks and finds the solution to an existential problem by making an attempt on the life of the subject."
In the analysis of this definition one looks at three aspects i.e. behaviour, existential problem and solution.
Behaviour: Baechler points out that using the word "behaviour " instead of "act " to refer to the incident of suicide is more appropriate. Suicide is only rarely circumscribed by the precise moment when it is accomplished. The fatal result of suicide is in fact preceded by an evolution that can be traced back to its first beginnings and various appearances eg. depression, mental troubles, aberrant conduct etc., which neither foreshadows nor determines the suicide but are alternative solutions to a fundamental problem and less injurious to the subject. In contrast the word "act" tends to objectify suicide and detaches it from the one who commits it.

Existential problem: Suicidal behaviour is a response to a problem which may be either internal or external. It concerns the whole of the subjects situation.
Solution: For the subject the problem provided no alternative solution at that point, otherwise he would not attempt to kill himself.
Attempt on the life: The ways by which a suicide can be accomplished are extremely variable.

KREITMAN (1988) referred to "parasuicide" as any act deliberately undertaken by a patient who mimics the act of suicide but which does not result in a fatal outcome. It is then a self initiated and deliberate act in which the patient injures himself or takes a substance in a quantity which exceeds the therapeutic dose (if any) or his habitual level of consumption, and which he believes to be pharmacologically active. This definition excludes accidental suicide (does not result in a fatal outcome).

1.4 EPIDEMIOLOGY

In the USA 1 person commits suicide every twenty minutes. Pedersen et al (1973) in a study in Monroe County, New York, found a suicide attempt rate of 160 per 100 000 per year for non-whitescompared with 53 per 100 000 per year for whites and a overall

ratio of attempted to completed suicides of 5.5:1. In the total country population non-whites have a suicide rate of 8.98 per 100 000 per year while the rate for whites is 10.51 per 100 000 per year. The rate of completed suicide was higher among the white group as compared to the non-white group.

Few recent studies have been done in this country (South Africa) but little effort has been made to study attempted suicide in it's own right especially in the black community. Breetzke (1988) found the incidence of suicide in the black population of Cape Town to be 0.7 per 100 000 compared to 14 per 100 000 among whites and 3 per 100 000 among coloureds. Lester (1989) found the overall rate to be 3 per 100 000 in South African blacks. Peiser and Oberholzer (1987) in their study at GaRankuwa hospital found the rate of attempted suicide to be approximately 11 per 100 000 population. This figure is very low compared with those of more developed countries.

To attempt to take one's life is still an illegal act in many African and Third World Countries. German (1982) found the frequencies of suicide per 100,000 population to be as follows: Less than 1 in West Africa, 1 in Nigeria and 8.5 in Busoga in Uganda.

Mengech et al (1984) reviewed the literature on suicide in sub-Saharan African countries and reported on Prince's study in Nigeria which confirmed the general view that suicide was uncommon in Africa .

1.5 EXPLANATORY THEORIES OF SUICIDE ATTEMPT IN THE BLACK POPULATION

The act of suicide is a very complex one. Many theories have been expounded to explain this act. No one theory completely explains suicide, as a result the many theories still exist and complement and contradict one another. Whatever the patient's motivation most parasuicides occur in an interpersonal context, and as such will only be understandable if viewed from a socio-cultural as well as an individual viewpoint.

Griffith et al (1989) in his review states that in one of the earliest articles regarding suicide amongst blacks, Prudhomme in 1938 suggested that blacks' relatively low suicide rates were explained by their primitive culture, poor education, habitual outward emotional expressiveness, and racist oppression.

Hendin (1969) also emphasized that amongst young, urban, black men, there was a direct relationship, and not an inverse one, between suicide and

homicide.

Other authors have tried to introduce the "black reality perspective" into the formulation of theories that would explain black suicide.
In the review by Griffith et al (1989) it is stated that King in 1982 suggested that it is the racist conditions in which blacks live that may account for the malignant sense of helplessness that leads to suicide. He explained that the helplessness arose from feelings that blacks could not create economic and political change in their lives and environment. This theory would suggest a higher suicide rate in blacks than in whites which is not true. But, the New York City figures showed surprising information that amongst blacks of both sexes between the ages of 20 and 35 years, (usually the politically active age group), suicide is decidedly more of a problem than it is in the white population of the same age. It is only after the age of 45 among whites that the suicide rate becomes so much greater than that of blacks of the same age. It is this that causes the white suicide rate to rise to a total level higher than that for the black.
Bush (1976) also acknowledged the negative effects of white racism on black lives. However, he thought that the internal cohesion of the black group was a powerful force that allowed blacks to contend with the daily experience of racism. When that was

lacking, character depreciation resulted, identity confusion increased, and suicide became a potential result. Griffith et al (1989) felt that these arguments do not explain why white males, who are economically superior and presumably show substantial competitiveness, have the highest male suicide rate.

South Africa has been involved in social unrest in recent years as a result of growing external and internal opposition to its policy of apartheid. In a review by Lester (1989) it is stated that Henry and Short in 1954 proposed a theory of suicide and homicide. They stated that, when people in a society have a clear external source to blame for their conflicts, then anger and violent behaviour (including homicide) become more likely. In contrast, when there is no clear external source to blame for problems, then depression and suicide become more common. Lester (1989) further argues that whites in South Africa and the USA, being the oppressors have no clear external source to blame for their unhappiness and so should have higher rates of suicide. Blacks in both countries, being the oppressed, have clear external sources of blame for their misery and should have higher rates of homicide than suicide. The data of the 1960's which were reviewed by Lester lends support to these ideas.

A study done by Breetzke (1988) in Cape Town showed that whites in the study area were twenty times more likely to commit suicide than blacks. He postulates several reasons:

Different set of expectations or a different world view. Whites in South Africa grow up as members of a privileged ruling group. They enjoy high standards of education and living and generally have high expectations of life. They expect life to treat them well. Thus when frustrated by trouble interpersonal relationships or depression they are unable to cope and see suicide as a way of solving their problems. Whites appear to lack the resilience of blacks who grow up expecting life to be harsh.

Different ways of expressing aggression. The inverse relationship between aggression turned outwards and that directed against the self has often been noted. Amongst black and coloured people there is a higher incidence of stabbing and assaults ie. aggression turned outwards, than amongst whites.

Black people have a propensity for expressing their emotions in somatic symptoms. There seems to be an association between lower social class and poor education, and the somatic expression of unpleasant emotions. A person is less likely to commit suicide if his emotions are expressed as somatic symptoms.

Another factor is the much longer life expectancy of whites than blacks. Whites become old and sick and with it depression which is the chief reason for suicide.

The Committee on Cultural Psychiatry of the Group for the Advancement of Psychiatry has used the concept of acculturation to suggest an additional explanatory theory of black suicide (Griffith et al (1989)). Acculturation can be defined as the adoption of a culture other than the traditional one by virtue of the proximity of a minority group living within the bounds of a majority group the cultural norms of which are at variance with the minority group. This usually applies when the minority group is less sophisticated or developed. Blacks, however, already have a traditional culture and the influence of urbanization in the Western context represents a deviation from or loss of identification with their basic culture. This could be regarded as deculturation. Culture deviance is seen as a consequence of deculturation. Cultural deviance in turn, involves a certain acquisition of new cultural patterns, i.e. acculturation, and in the urbanization process, probably the acquisition of the rather amorphous norms of urban culture. Acculturation describes the interaction of any dominant and non dominant group, and this would be as applicable to whites and blacks in South Africa

as it is in the United States. Acculturation is still subject to individual psychology, economics, and politics. The committee suggest that it is the interaction of the two groups, the degree of conflict between them, and the eventual style of adaptation of the non dominant group that determines the group's use of suicide.

Cheetham et al (1983) found that amongst the Indian group in South Africa deviation from cultural norms by younger persons and the concomitant disapproval of relatives and/or the community appear to play a significant role in precipitating parasuicidal behaviour.

1.6 BIOLOGY OF SUICIDE AND SUICIDE ATTEMPT

Roy et al (1988) in his review of the literature quotes Cohen, "If to the psychological factors now employed we can add relevant biological factors and their interactions with psychosocial factors, we may be able to develop the causal models necessary for the understanding, prediction, and prevention of suicide."

Studies of the biology of parasuicide parallel similar studies amongst completed suicides. Studies have tended to focus on serotonin and its metabolite 5-hydroxyindoleacetic acid (5-HIAA). Abnormally low levels of cerebro-spinal fluid (CSF) serotonin and 5-HIAA have been correlated with suicidal behaviour, including violent completed suicide (Asberg et al (1976)). Brown et al (1982) in two studies of personality disordered individuals, also found that patients with history of suicidal behaviour had significantly lower levels of CSF 5-HIAA. Traskman et al (1981) reported that CSF 5-HIAA levels were significantly lower among those patients who made violent suicide attempt (hanging, drowning, shooting, gassing, several deep cuts). Marazziti et al (1989) studied the 3H-imipramine binding parameters (Bmax and Kd) in platelets and their results supported the hypothesis that decreased serotonin function may play a role in suicidal

behaviour. Stanley et al (1989) emphasised that it is unclear whether the abnormally low cerebral serotonin levels related directly to suicidal behaviour, aggressiveness or to the severity of depression. However, Cheetham et al (1989) measured 5 hydroxy-tryptamine (5-HT) and 5-HIAA concentrations and 5-HT turnover (5-HIAA/5-HT) in 6 different brain regions and found no support for the view that 5-HT turnover is reduced in depressed subjects who committed suicide. If in the future, cerebral serotonin activity could be easily measured by blood sampling, a remote possibility exists of a biological marker of suicide risk.

Disturbances of the hypothalamic-pituitary adrenal axis have also been hypothesized, probably as a result of a well publicized association of abnormal dexamethasone suppression and major depression. Dorovini- Zis and Zis (1987) took a different approach to studying such abnormalities. They weighed the adrenal glands taken at autopsy from 16 suicides and 10 controls who died suddenly. The adrenal weight was significantly higher in completed suicides than controls. Ayuso-Gutierrez el al (1987) were unable to associate post-dexamethasone cortisol or dexamethasone suppression test results to parasuicide.

Korner et al (1987) were unable to find that a blunted response to TRH correlated with later completed suicides, confirming an earlier study. Korpi et al (1987) were unable to correlate gamma aminobutyric acid (GABA) concentrations in the forebrain regions to completed suicide.

Some studies have also reported lower CSF levels of the dopamine metabolite homovanillic acid (HVA) among patients who have attempted suicide. Traskman et al (1981) reported that both violent and non-violent suicide attempts were associated with significantly lower levels of both CSF 5-HIAA and CSF homovanillic acid (HVA). Agren (1983) concluded that CSF HVA levels were even stronger than CSF 5HIAA levels in predicting suicidal behaviour. In explaining past suicide behaviour in depressed patients Montgomery and Montgomery (1982) also found that there was a highly significant relationship between CSF HVA and a history of attempting suicide.

Thorell (1987) believes that electrodermal hyporesponsivity among depressed patients might be characteristic of the suicidal process. He studied electrodermal activity in 25 suicidal and 34 non-suicidal depressed patients, and 59 healthy controls. He linked extreme hyporesponsitivity to

suicide attempts, regardless of whether the attempt had been made previously or during the current episode.

1.7 PSYCHOLOGICAL ASPECTS OF SUICIDE ATTEMPT

Kreitman (1988) feels that there are strong grounds to conclude that a substantial number, if not the majority, of overdose patients have no formal psychiatric illness and for these patients a psychological approach would be more appropriate. Parker (1981) felt that although it was open to dispute as to whether attempted suicide (parasuicide) is a psychological problem rather than a psychiatric one, it was clear that a purely psychological approach can contribute much to the understanding of the process involved. He concluded that a substantial number if not the majority of overdose patients have no formal psychiatric illness. This substantiates Kreitman's viewpoint. Parker (1981) supports his argument by quoting the situation in Edinburgh where, whether due to the vagaries of diagnosis or a change in clientele, there has been a steady decline in the number of patients diagnosed psychiatrically ill attending the Regional Poisoning Treatment Centre (RPTC), Edinburgh.

Although a lot has been written concerning this subject, the main difficulty is that after the act many patients cannot describe clearly what their intentions really were. This confusion of motive is itself an important characteristic of the majority of patients.
Kreitman has recognised a number of themes:

Seeking "interruption" in an unendurable state of tension (Shneidman). Patients describe a blind reaction in which some immediate relief from a stressful situation has been sought.

A "cry for help" as described by Stengel and Cook in 1958. Such a reaction is commonly seen in patients with marital difficulties or other kinds of family crises or when experiencing conflict with authorities. The explanation given by the patient is that they were trying to secure the attention and solicitude of other people in their immediate environment, often after more conventional means of doing so had failed.

There are those patients for whom the act has been a means of making others around them feel anxious or guilty, and towards whom they may express aggressive feelings. Sometimes this hostility is reflected by the patient's family and friends, who may react angrily, especially if the parasuicidal act is a

repetition.

Another motive sometimes adduced, though often not very explicitly, is that of testing the benevolence of fate. Here the patient is replicating a primitive "trial by ordeal" in which he stakes his life in a hazardous enterprise, interpreting survival as evidence that destiny intended him to live. This is sometimes linked with the individual's wishing to test his capacity for taking desperate action, rather analogous to the dangerous pranks of the adolescent.

Sometimes it seems that the patient intended to kill himself but was prevented either by his own ignorance of the required dosage or by chance intervention by others.More commonly patients will report an indifference as to whether or not they survive, rather than a clear decision to end their lives.

Kreitman emphasises that it is possible to describe a variety of motives underlying parasuicide, but it would be mistaken to think that most patients show only one of the list just enumerated. In most parasuicides the motives are multiple, and may be mutually contradictory - hence, a marked "ambivalence" to the act, usually an ambivalence between the wish to live and the wish to die. This

may be useful in describing the mental state of those who actually kill themselves, since there is evidence that many suicides had some wish to survive even if the death wish proved the stronger. Kreitman makes it clear that the psychiatrist should have some awareness of the norms and values of the group from which the individual comes and should have an understanding of the dynamics of the patients psychosocial situation.

According to Mengech et al (1984) the courts in Kenya take a liberal attitude towards suicide attempters, often placing them on probation following such an attempt. Hawton and Catalan (1987) state that individuals who harm themselves should not generally be considered to be psychiatrically ill because of their behaviour, but rather should be seen as people made vulnerable by personal and social difficulties, and remain responsible for their actions.The dangers inherent in adopting a medical attitude to attempted suicide are as great as those involved in the opposite extreme.

1.8 RISK FACTORS ASSOCIATED WITH SUICIDE ATTEMPT

One of the most demanding tasks for a psychiatrist is the ability to assess the risk of patients who attempt to take their lives. While suicide risk factors may be useful in identifying high risk groups of individuals, such criteria are far less useful when it comes to predicting risk in the individual patient. Most of the risk factors for suicide are based on examining the risk in the long term, which is very different from predicting short term risk factors. Hence the major problem that a clinician faces is whether or not a patient is likely to commit suicide during the next few hours, days or weeks. Another problem with long term risk factors is that one cannot predict future life events, which can alter the risk status, eg. a happily married man with a good job might in a few months lose his job, start drinking heavily and become divorced. A history of suicide attempt is one of the most powerful predictors of subsequent death by suicide. According to American statistics of persons who make unsuccessful suicide attempts approximately 1% commit suicide each year during the 10 years after the attempt. Hawton (1987) feels that this is a false positive rate.

Retrospective studies have been done on completed suicides and the general impression is that there is

a very high prevalence of various psychiatric disorders among these people.

1.8.1 AGE AND SEX

Mengech (1984) in his study on parasuicide in Nairobi found the male:female ratio to be 1:1.3. Efrayeka (1984) in his study in Nigeria found the male:female ratio to be 1:1.2. Peiser et al (1987) at Medunsa hospital found a ratio of 1:1.4. In his article Peiser quotes that Kehoe and Abbot in Canada reported a male:female ratio of 1:4 and that Bancroft et al in England (Oxford) found a male:female ratio of 1:2, and O'Brien a ratio of 1:2 in the United States (Boston). Hence it appears that in all countries there is a preponderance of females over males. In developed countries this ratio is greater. In a study done by Merril et al (1987) in Birmingham they compared self poisoning between the West Indian and white population groups and reported a similar ratio amongst the whites of 1:1,5 and amongst the West Indians to be 1:2.7.

Pederson et al (1973) in his study in Monroe County, New York, compared white and non-white suicide attempters and reported the male:female ratio among t the whites to be 1:3 and amongst the non-whites to be 1:6.

In the Nairobi study ninety percent of the patients were below the age of 40 years, with 76% between 16-30 years. The youngest patient was a 14 year old girl. Peiser (1987) in his study concluded that the age distribution fluctuated between 11 and 15 years, with an average of 23,4 years. The highest percentage of both male and females was between the ages of 15 and 19 years. Minnaar et al (1980) found the male:female to be 1:3 and that the peak age among South African whites was between 20 and 29 years. Pederson recorded that 82% of whites and 94% of non-whites were in the 15-44 year age range. Merrill et al (1987) found that while the mean age of males and females in the West Indian group was equal (15 to 19 years),it was different in the white group (males 25 to 29 years and females 15 to 19 years). Hawton and Catalan (1987) found a similar picture in Oxford City were the highest rates for males was in the 30-34 year age group and for females in the 15-19 year age group.

Suicide attempt has become a major problem amongst teenagers in whom self poisoning is most common. Hawton (1987) found a higher preponderance of female attempters among adolescents than adults. He has put forward three possibilities for this:

Girls may mature and face problems of adulthood, such as broken relationships with boyfriends, earlier than boys. These are the problems which most commonly precipitate attempts by teenagers.

Self-poisoning may be a more acceptable coping strategy for girls than for boys. Thus, boys only seem to resort to suicidal behaviour in the face of extreme difficulties.

Boys may have better access to alternative outlets for dealing with distress, such as aggressive behaviour or alcohol abuse.

Suicide attempt is relatively rare under the age of 12 years and there have only been a few isolated cases in a younger age group. However it should be remembered that attempts by children are far more likely to go unrecognised than those by adults (Hawton (1987)).

Some postulations have been made as to why suicide attempts become increasingly common after the age of 12 years:

One important factor may be that the concept of death develops late in childhood, with full awareness of the implications of death not being gained until early adolescence (Piaget (1960)). Possibly, serious impulses towards suicidal behaviour do not occur until the concept of death has developed.

Other factors which have been suggested by Hawton (1987) include the rarity of depression in children, their close integration within the family, and the necessity for a marked degree of cognitive maturation before a child can develop feelings such as despair and hopelessness. However, this can hardly be true for a lot of children especially among the black community of South Africa.

1.8.2 SOCIO-ECONOMIC CHARACTERISTICS

Membership of the lower socio-economic classes has been long recognised as one of the factors inversely correlated to completed suicide (Breetzke (1988)). He found in Cape Town that even though the majority of completed suicides were from the lower social classes, the suicide rates were lower in those racial groups with a preponderance of people in the lower social strata. In Oxford in 1980 to 1982, the rate in social Class V was more than eight times that in social classes I and II, while in Edinburgh there was a twelve fold difference in the rate (Platt et al (1988)).

Although there is substantial evidence that the risk of completed suicide is increased among unemployed men, and to a lesser extent among unemployed women (Platt (1984)), it is unclear to what extent unemployment itself contributes to suicide risk. Platt et al (1984) speculate that the unemployed individual considers himself less socially stigmatised and personally deviant in social situations or contexts of high unemployment than in situations of low unemployment. Consequently, the psychological impact of unemployment may be significantly less marked in high rate unemployment areas, in years of economic recession, and in age groups and social classes where unemployment is

a relatively common experience.

Prolonged unemployment may be a significant predisposing factor in suicidal behaviour because it leads to an increase in family tensions, arguments and violence; more depression and hopelessness; increasing isolation from others; changes in role structure within the family; financial hardship and material deprivation; loss of self esteem and self confidence, feelings of reduced self worth; or any combination of these sequelae. A provoking agent (e.g. argument with spouse) would be more likely to lead to parasuicide in the presence of unemployment, than in its absence (Platt (1986)).

Hawton et al (1986) in their discussion of the research evidence from Oxford and Edinburgh, consider the possibility of an indirect causal link whereby unemployment may precipitate or exacerbate factors known to increase the risk of suicidal behaviour, such as social and interpersonal difficulties, poverty and psychiatric disorders. The findings of a higher prevalence of psychiatric treatment and alcoholism among unemployed and higher risks of parasuicide in the long term unemployed would be predicted by such an indirect causal link. Another explanation could be that both unemployment and parasuicide are causally related to a third

factor namely, the "psychologically vulnerable", since psychiatric illness seemed to be responsible for both unemployment and suicide in most cases. However, in some individuals, unemployment may also have exacerbated a pre-existing psychiatric condition and thereby increasing the risk of suicide.
Nevertheless, unemployment is a risk factor for suicide among individuals with psychiatric disorders, irrespective of the nature of this association (Roy (1982)).

1.8.3 ALCOHOL

The association between alcohol abuse and suicidal behaviour has long been recognised. The association between alcoholism and completed suicide has been particularly well documented (Hawton et al (1989)).

In Oxford in 1984, alcohol was consumed during the "act" in approximately 25% of attempts, and in more of those made by men than by women. Alcohol is often consumed shortly before an attempt (Hawton and Catalan (1987)). Hawton et al (1989) state that while it is recognised that alcohol dependence is common among suicide attempters, rather less attention has been paid to the nature of the association between attempted suicide, alcohol use and abuse.

According to Kreitman (1988), the risk of eventual death by suicide among alcoholics has been variably quoted by different workers using different definitions of alcoholism, but a figure of 5 to 10 % over a five year follow up period for male alcoholics treated by a psychiatrist appears to be a modest estimate. The maximum risk appears to be within the first few years following contact with psychiatric services.

Hawton et al (1989), in their study found a higher rate of repetition of suicide attempts amongst alcoholics than non alcoholics. This finding is in keeping with other studies and is particularly significant because there is increased risk of eventual death in those who repeat attempts (Hawton (1987)).

A marked association between unemployment and alcoholism among suicide attempters has been found but it is not possible to say, for example, whether unemployment increases the risk of alcoholism, and hence of suicide attempts, or whether high rates of alcoholism and attempted suicide among the unemployed is a reflection of the fact that people with emotional and psychiatric problems (including alcohol abuse) are more likely to become unemployed (Hawton et al (1989)).

1.9 CLINICAL ASPECTS

Kreitman (1988) concludes that an appreciable minority of patients show no evident psychopathology apart from their parasuicidal behaviour, and these people are basically normal individuals subjected to acute situational stresses. The psychiatric abnormalities that he found were adolescent turmoil, minor reactive depressions being particularly common among young people, personality disorders and alcoholism. Epilepsy and mental defect were represented more commonly than among the population at large.

Hawton and Catalan (1987) found that only 5 to 8% of attempted suicide patients suffered from severe psychiatric illnesses. Although many patients who take overdoses have recently experienced situational disturbances, for most of these patients the reactions are mild and mostly take the form of "depression". The disturbances were usually relatively transient and secondary to the types of difficulty experienced in their lives.

People suffering from a psychiatric illness are more likely to kill themselves.
Retrospective studies, both British and American, suggest that over 90% of completed suicides have

suffered from a diagnosable mental illness at some time, but this was often not recognised or was inadequately treated. Barraclough et al (1974) in their study of a series of 100 individuals who killed themselves found 70% were thought to have been suffering from depression, 15% from alcoholism, 3% from schizophrenia and 5% from other conditions.

1.9.1 AFFECTIVE DISORDERS

The most replicable risk factor for suicide is depression. Patients treated by psychiatrists for a primary affective disorder have approximately 30 times the risk of dying by suicide than the given population and if these cases are followed up for the rest of their lives, then 15% will die by suicide (Guze et al (1970)). In short-term follow-up the incidence varies considerably. The risk of completed suicide is highest relatively early in the course of the disorder and that, unsurprisingly, suicides usually occur during episodes of depression rather than during remission.

Barraclough et al (1975) compared 64 suicides diagnosed retrospectively as having depression with 128 living depressed individuals and found the following characteristics more common: male sex, older age (in females), single status, living alone, and having a history of suicide attempts.

In a study of 1593 patients with unipolar and bipolar affective disorders, Black et al (1988) found that primary, secondary and bipolar depressions carry similar risk for suicide, and that patients with psychotic affective disorders have a similar suicide risk to those with non-psychotic affective disorders. They also found a lower suicide risk among bipolar manic patients, while depressed bipolar patients have a suicide rate similar to that of unipolar patients.

In contrast to Black et al's findings Roose et al (1983) reported the risk for suicide in delusional depression to be 5,3 times as high as in nondelusional depression. Their finding was based on a retrospective study of patients who committed suicide in a New York hospital over a 25 year period. Of the 14 patients with unipolar endogenous depression who committed suicide, 10 were delusional. They further concluded that delusions were among the most powerful predictors of suicide in patients with endogenous depression. Based,

in part, on previous research suggesting that delusional depression is a distinct clinical syndrome, the investigators hypothesized that the higher rate of suicide may be an intrinsic part of the delusional depressive syndrome. However, evidence for a delusional depressive syndrome is poor.

Hopelessness or negative expectations about the future, has long been emphasized as one of the most important factors leading to suicide in depressed individuals. Beck et al (1985) state that according to Beck's formulation, hopelessness is a core characteristic of depression and serves as the link between depression and suicide. Furthermore, hopelessness associated with other psychiatric disorders also predisposes the patient to suicidal behaviour.

1.9.2 SCHIZOPHRENIA

The risk of suicide among individuals with schizophrenia is uncertain because of varying diagnostic criteria used. Miles (1977) reviewed a series of follow-up studies, most of which used different diagnostic criteria, and estimated that 10% of schizophrenics died by suicide. The risk of suicide was particularly high during the early years of the illness.

Drake et a. (1984) found that all of a series of schizophrenic suicides occurred during a relatively non- psychotic phase of the illness. Most of the suicides had attained a relatively high level of educational status prior to the illness, were living alone and had previously expressed suicidal intent. They tended to have high non-delusional expectations of themselves, were largely aware of the effects of their illness and its consequences for their future functioning and tended to be depressed, particularly with feelings of inadequacy, hopelessness and suicidal ideas, rather than biological features of depression. They found three variables that were especially important in predicting suicide i.e. namely fears of mental disintegration, suicidal threats and hopelessness. Salama (1988) did a study in Illinois and also found a high premorbid achievement and high expectations among his patients. Because of their illness they felt inadequate and were frightened about further deterioration, dependence on families and possible lifelong institutionalization. This resulted in depression.

These findings emphasise the need for schizophrenic patients to receive long-term support and also careful surveillance during remission as well as during relapse.

1.9.3 PERSONALITY DISORI

Little is known about the risk of suicide in people with abnormal personalities because in the few studies that have been done the results are conflicting. A likely reason for the paucity of studies in this area is the issue of personality assessment in this population. The unreliability of this group in providing objective information was one of the constraints upon such an inquiry (Casey (1989)).

Barraclough et al (1974) found personality disorders to be relatively common among completed suicides. Ovenstone et al (1974) concluded that 10% of completed suicides suffer from sociopathic disorders. and that 52% of men and 44% of women who committed suicide had a personality disorder of some type.

Borderline personality disorder is frequently concurrent with other psychiatric disorders, and some preliminary studies have suggested that its comorbidity with affective disorder and substance abuse increases the lethality and frequency of suicide attempts (Fyer et al (1988)).

Ross et al (1989) found that patients with multiple personality disorders who attempted suicide experienced more physical abuse and rape than those

who did not attempt suicide. They also received more other psychiatric diagnoses, more inpatient treatment and more psychotropic medication. They spend twice as long in the mental health system prior to diagnoses and have twice as many identified personality disorders.

Individuals most at risk are probably those who show marked lability of mood, aggressiveness, impulsivity and those who have become alienated from their peers, especially if this picture is complicated by alcohol or drug abuse (Hawton (1987)).

1.9.4 NEUROSES

Neurosis is often regarded as a prolonged and irritating condition which occurs independent of or alongside somatic illness and makes management more difficult. It is usually a benign condition and thought to be a very rare cause of death. Sims et al (1978) in reviewing the literature and also in their study demonstrated that a variety of neurotic conditions had an increased risk of suicide. They found the relative risk in comparison with the general population to be 1.7:1 i.e. for accidental death the relative risk to be 5.4:1 and that for suicide in particular to be 6.1:1.

Weissman et al (1989) found the risk of attempted suicide among panic disorders to be about 20% but Coryell (1981) found the rate in obsessive compulsive disorder to be much lower. Unfortunately, further information is lacking regarding the specific characteristics of patients with neuroses who are at particular risk for suicide.

1.9.5 EPILEPSY

Mendez et al (1989) found the risk of completed suicide among epileptics to be 4 or 5 times greater than among non-epileptics. According to Barraclough (1987) temporal lobe epilepsy (TLE) and severe epilepsy or epilepsy with handicap carried a greatly increased risk of suicide, 25 times in the case of TLE and 5 times for severe epilepsy.
The reasons for this increased risk are not clear and Mendez et al (1989) in reviewing the literature found the following reasons given: Psychological influences such as social stigmatization and increased job and marital difficulties; Seizure variables such as frequent poorly controlled seizures and the presence of frightening or affective auras; Anticonvulsant factors such as medication induced cognitive changes and the easy availability of potentially lethal drugs. Suicides may result from the higher prevalence of specific

psychopathologic factors, such as psychoses personality disorders and endogenous depression. But Mendez et al (1989) from their study hypothesised that suicide attempts in epileptics occurred as a symptom of inter-ictal psychopathologic factors and not primarily as a reaction to the chronic psychosocial stressors of having epilepsy, specific seizure factors, or the cognitive effects of anticonvulsant medication.

1.10 TREATMENT AND PREVENTION

Prevention of suicide is the ultimate goal of treatment. Most patients who take overdoses or injure themselves do not require psychiatric inpatient care because they are able to take responsibility for themselves or have sufficient support available. However, these patients should be offered further help of one kind or another. Most self-poisoning patients are reacting to crises in interpersonal relationships and find it difficult to sort out their life problems in a clear way. Crisis intervention in these cases appears to be the most effective form of treatment especially if the approach is a clear and simple one.

Ideally, the aims of treatment are to help the patient obtain resolution of the crisis which precipitated the overdose, alleviation of social and personal problems and a greater ability to cope with

similar situations in the future.

In the management of self-poisoning patients it is seldom necessary to introduce psychotropic drugs. More often than not it is necessary to consider stopping psychotropic drugs already prescribed. Such drugs have often been inappropriately prescribed and also have been used in the overdose. Psychotropic drugs should only be prescribed for specific reasons e.g. in the evidence of significant depression which is severely limiting coping ability. When antidepressants are prescribed, the amount given should be restricted to a minimum with the prescription reviewed, at say weekly intervals, during the acute stage. The question of prescribing psychotropics to those with personality disorders and especially to those who have previously taken an overdose, should be carefully considered. Problems in personal relationships are unlikely to be altered directly by medication unless such problems are secondary to a mood disturbance. There are few indications for tranquillizers in people who are experiencing personal and interpersonal problems. Nonetheless, brief counselling is said to be at least as effective as medication in most people facing such problems (Hawton & Catalan (1987)).

Beck et al (1985) felt that the therapeutic interventions that reduced hopelessness most rapidly may also lower suicidal potential. He found evidence in the literature that cognitive therapy helped in lowering hopelessness faster than did pharmacotherapy. That the effect of cognitive therapy may be relatively enduring and thus provide a more prolonged protection against suicide is supported by studies that show a lower relapse rate among patients treated with cognitive therapy than with antidepressant treatment (Kovacs et al (1981)).

Hassanyeh et al (1981) in their opinion feel that it is unlikely that all the help available will reduce the overdose rate to below a certain level. Taking an overdose nowadays, seems to be less unacceptable than it used to be.

Nonetheless, it is important that the following features should alert the physician or health worker when assessing a suicidal patient: age 45 years or more; male sex; unemployed or retired; separated, divorced or widowed; living alone; poor physical health; received medical treatment within six months; psychiatric disorder including depressed mood alcoholism and a history of a previous suicide attempt.

CHAPTER 2

THE STUDY

2.1 DESIGN

This is a retrospective, prospective, descriptive study. Data were obtained by reviewing psychiatric records of hospital patients and interviewing these patients after a minimum period of six months post hospitalisation.

2.2 SAMPLE

All cases of attempted suicide seen in the psychiatric department at Baragwanath Hospital over the six month period [January - June 1989] were included in the sample.

Baragwanath hospital is a teaching centre attached to the University of Witwatersrand. It has approximately 3700 beds and is the only provincial hospital serving the Black population of Soweto of approximately. 3 million people. The psychiatric department at this hospital is a relatively new one with a full time psychiatrist and one registrar present only from the latter part of 1985. At the time of the study there was no psychiatric ward and the service was on a consultative bases only.

At this hospital, patients who make a suicide attempt are first seen by the casualty officer and then, are either discharged with or without a referral to psychiatry or admitted to a medical or surgical ward. Depending on the discretion of the ward doctors some of these patients are then referred to the psychiatric clinic for assessment and management. All patients were not necessarily referred and also patients seen by private practitioners were not included in the study.

2.3 METHOD

A data schedule (appendix I) was drawn up and information was obtained from the psychiatric files of patients. An attempt was made to contact these people at least six months after the suicide attempt. All information was collected by the author.

2.3.1 Retrospective information on the following clinical variables was recorded in the data schedule by the author.

a) The age of the patient.

b) The gender

c) The month of attempt

d) The different methods of suicide attempt e.g. ingestion, hanging, burning, cutting, and other.

e) The agent ingested.

f) Whether previous suicide attempts had been made.

g) Family history of suicide attempt.

h) The probability of discovery of the suicide attempt ranging from a high probability, to medium, to low, to unknown.

i) Precipitating factors involved, such as interpersonal dispute, financial problems,problems related to work or school, medical or drug problems.

j) A history of alcohol ingestion prior to the attempt.

k) Past history of psychiatric problems.

l) Present psychiatric diagnoses, if any, such as psychoses, depression, personality traits/disorders, or just a transient situational disorder.

m) Pharmacological treatment given,if any.

n) Referral to social services, if any, such as psychologist, social worker or occupational therapist.

o) Any follow up appointment given and if this was kept.

The follow up of patients after a minimum of six months to establish if they had reattempted suicide or not, constituted the prospective aspect of the study.

2.4 STATISTICAL ANALYSES

Descriptive statistics in the form of frequency distributions were computed. On interval and ratio data means and standard deviations were calculated. On continuous data t tests were used to compare means of groups. Chi-square analyses were computed for the relationships between the categorical variables. Where cell frequencies were low, i.e. less than 5, appropriate categories were combined. In the case of 2 X 2 contingency tables with low cell frequencies the Fisher's Exact Test was used. The coefficient of contingency was calculated to show the magnitude of the significant relationships. Graphical representations of relevant distribution and relationships were presented.

2.5 THE RESULTS

A total of 1377 patients were seen at the psychiatric department in this time period. One hundred and thirty patients were suitable for the study.

2.5.1 AGE AND SEX

The age range for the total population was 13 years to 50 years. Thirty nine (30%) of the patients were in the age group 12-19 years, 60 (46%) between 20-29 years, 24 (18%) between 30-39 years, and 8 (6%) were 40 years and over. Table I shows the relationship of age to gender. There were 41 males and 89 females, a ratio of 1:2.2. Highest age specific rates among females occurred in the 20-29 year olds, and declined markedly thereafter, whereas for males the peak rates were in the 20-29 and 30-39 year age groups with a marked decline after the age of 40 years. The mean age of the men was 26.85 years, compared with 23.6 years for women. Although the males tended to be older than the females the age difference is not significant ($t = 1,16$; $df = 128$; $p > 0,05$).

TABLE I: RELATIONSHIP BETWEEN AGE AND GENDER IN SUICIDE ATTEMPTERS

AGE	FREQ	PERCENT	MALES	FEMALES
12-19 YRS	39	30%	11 (28%)	28 (72%)
20-29 YRS	59	46%	14 (24%)	45 (76%)
30-39YRS	24	18%	13 (54%)	11 (46%)
40 YRS & OVER	8	6%	3 (37,5%)	5 (62,5%)
MEAN AGE			26.85	3.60

2.5.2 MONTH OF ATTEMPT

Table II shows the fluctuations of attempted suicide in the six month period. The largest percentage occurred in January (21%) with a slow decline towards June (11%).

TABLE II: SEASONAL VARIATION IN SUICIDE ATTEMPTS

MONTH	FREQUENCY	PERCENTAGE
JANUARY	27	21
FEBRUARY	21	16
MARCH	24	18.5
APRIL	23	17.5
MAY	21	16
JUNE	14	11

2.5.3 METHOD OF ATTEMPT

As shown in Diagram 1 self-poisoning was the predominant method used in the suicide attempt (83%). More females (77%) than males (23%) used this method of suicide attempt. Although 5% (6 patients) used cutting as a method, in none of these cases was it the typical wrist cutting seen amongst people with personality problems. In the 2 cases listed as other in the diagram, the one ran in front of a car and the other was found on the roof of a house. Of the males in the study, 61% used ingestion as a method and 39% used the other methods (Diagram 2a) whereas, 93% of the females ingested a substance and only 7% used the other methods (Diagram 2b).

Significantly more males than females (73%), used methods other than self-poisoning (chi square =20.8; df=1; p<0,05). The total mean ages as well as that for males and females for each of the methods is shown in Table III. The people that self-poisoned themselves tended to be younger with a mean age of 24.14 years (S.D. 7.66). The males tended to be older in each of the categories except for hanging, although not significantly so (p > 0.05).

DIAGRAM 1
METHOD OF ATTEMPT AND THEIR FREQUENCY

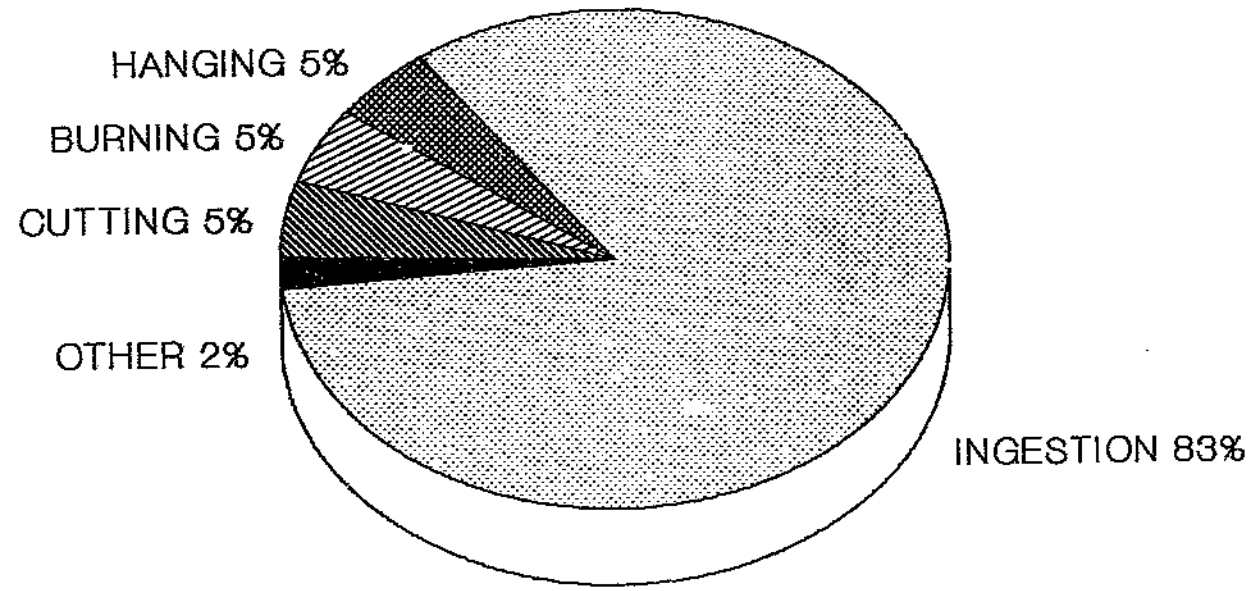


DIAGRAM 2
METHOD OF ATTEMPT IN MALES AND FEMALES

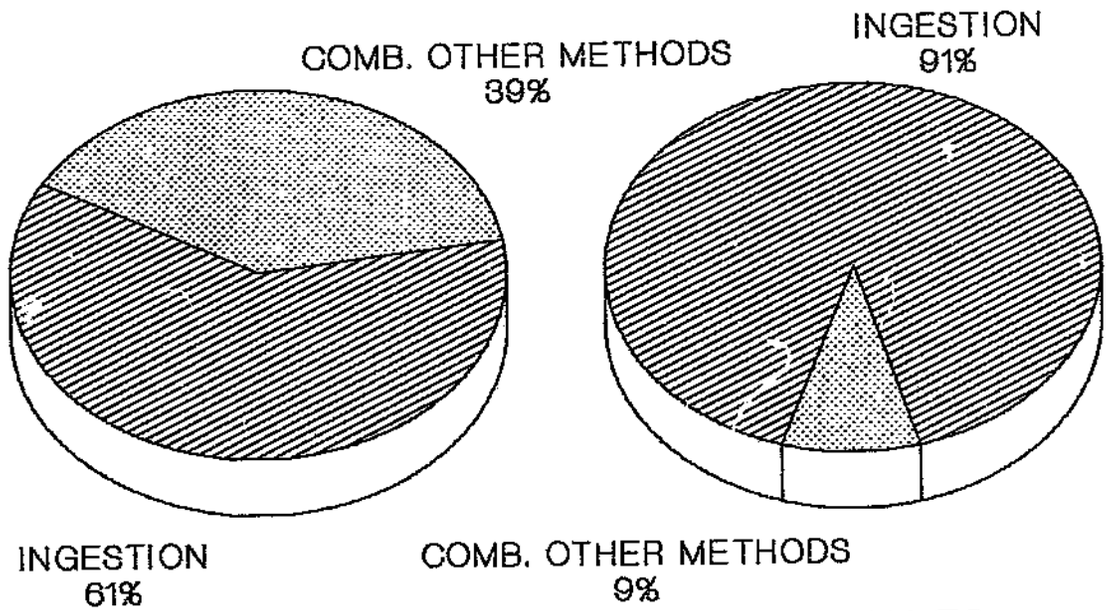


TABLE III: RELATIONSHIP BETWEEN METHOD OF ATTEMPT BY GENDER AND MEAN AGE

METHOD OF ATTEMPT	MEAN AGE MALES	MEAN AGE FEMALES	TOTAL MEAN AGE & S.D.
INGESTION	26.44	23.45	24.14 (7.66)
HANGING	25.50	24 00	24.86 (9.51)
BURNING	30.40	26.50	29.29 (9.50)
CUTTING	27.00	29.00	27.33 (6.77)
OTHER	25.50	---	25.50 (0.71)

2.5.4 AGENT INGESTED

Table IV shows the frequency of the different substances ingested and its relationship to gender. Seventy (65%) of the patients used substances that were readily available in the environment, these being cleaning materials (jik, javel, bleach, paraffin), pesticides, corrosive substances (battery acid and thinners). Females made up 81% of this group. No patients in this study used alcohol as a self-poisoning substance. Thirty eight (33%) of patients took prescription, over the counter and street drugs. Of these, 9 took non-narcotic analgesics; 1 took a benzodiazepine (BZD); 2 overdosed on mandrax and 7 ingested more than one drug. Of the remaining 15 patients, 5 took a solution for external use, 4 took anti-inflammatories, 3 took multivitamins and 3 ground glass (included as other in Table IV). Males made up 32% of this group.

TABLE IV: RELATIONSHIP OF AGENT INGESTED BY FREQUENCY, GENDER AND MEAN AGE.

AGENT	FREQ	MALE	FEMALE	MEAN AGE
HOUSEHOLD	45 (42%)	6 (13%)	39 (87%)	22.89(5.5)
PESTICIDE	12 (11%)	3 (25%)	9 (75%)	26.42(9.7)
CORROSIVE	13 (12%)	4 (31%)	9 (69%)	28.15(8.8)
ALCOHOL	--	--	--	---
NON NARC	9 (8%)	1 (11%)	8 (89%)	21.44(8.3)
ANXIOLYT	1 (1%)	1 (100%)	--	44.00
ANTIDEP	2 (2%)	--	4 (100%)	20.00(2.8)
ANTICONV	4 (4%)	--	4 (100%)	16.75(1.5)
OTHER	15(14%)	7 (47%)	8 (53%)	26.53(8.7)
MULTIPLE	5 (4%)	1 (20%)	4 (80%)	21.60(4.4)
MANDRAX	2 (2%)	2 (100%)	--	22.00(9.9)
TOTAL	108	25	83	

NOTE: NON NARC = NON NARCOTICS.

ANXIOLYT = ANXIOLYTIC

ANTICONV = ANTICONVULSANTS

ANTIDEP = ANTIDEPRESSANT.

The one patient who overdosed on a benzodiazepine was a 44 year old male whereas the two that took an antidepressant were both females with a mean age 20.00 years (S.D. 2.83). The 4 patients that took anticonvulsants were all young females - mean age 16.75 years (SD 1.5).The group that took corrosive substances had the highest mean age, 28.15 years (SD 8.82). No significant difference ($p > 0.05$) was found between the mean ages of those who used readily available substances (mean age 24.47 S.D. 7.25) and those that took prescribed drugs (mean age 23.53 S.D. 8.42)

2.5.5 PREVIOUS SUICIDE ATTEMPTS AND PAST PSYCHIATRIC HISTORY

DIAGRAM 3 shows the frequency of suicide attempts. For 116 (89%) of the people this was their first attempt. Of the 14 (11%) patients who had made previous suicide attempts, for 9 (7%) this was their 2nd attempt, for 2 (1.5%) patients this was their 3rd attempt, for another 2 (1.5%) it was their 4th attempt and 1 (1%) patient made more than 4 attempts.

Diagram 4a & b show the frequency of attempts in males and females respectively. Although a female preponderance of 69% was found among first time attempters this was not significant ($p > 0.1$).

DIAGRAM 3
NUMBER OF SUICIDE ATTEMPTS AND THEIR FREQUENCY

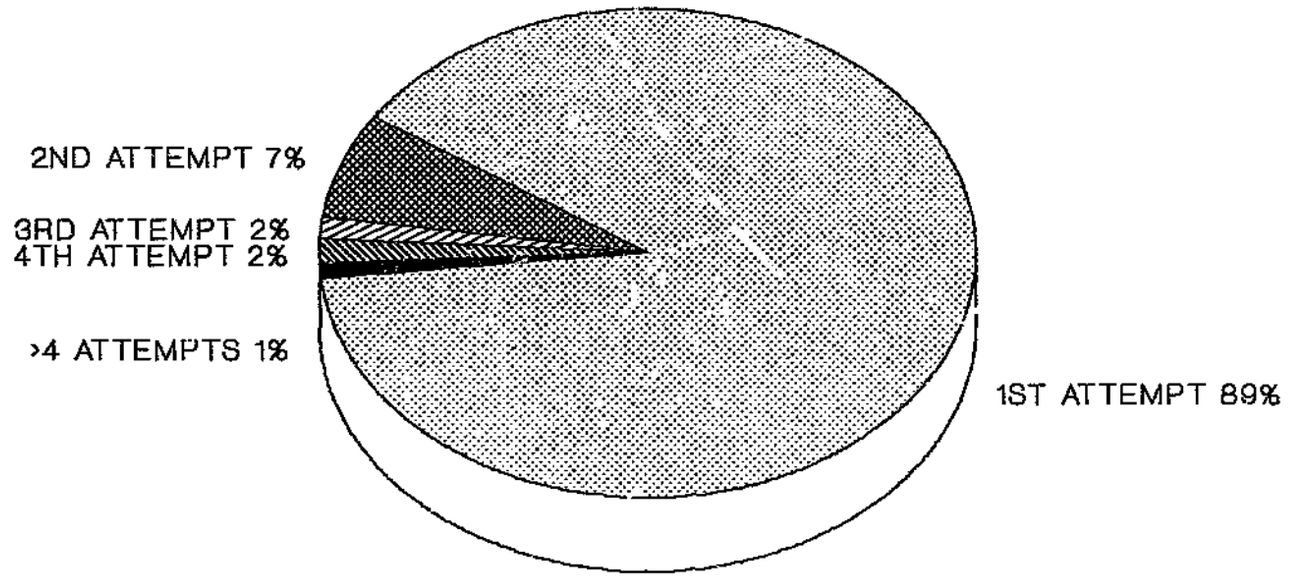
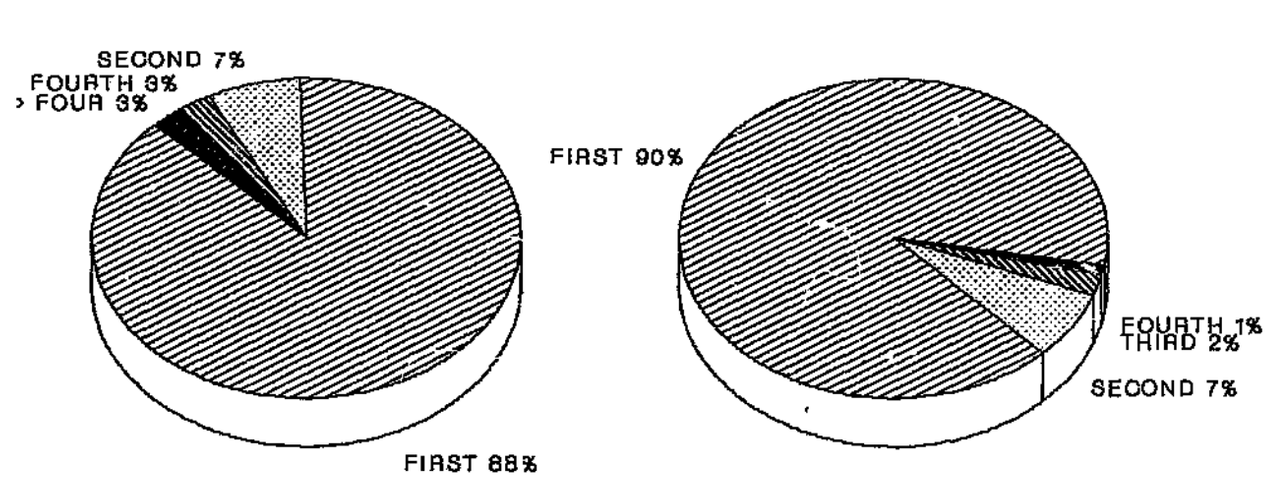


DIAGRAM 4
FREQUENCY OF SUICIDE ATTEMPTS IN MALES AND FEMALES



a) MALES

b) FEMALES

TABLE V: RELATIONSHIP BETWEEN NUMBER OF SUICIDE ATTEMPTS BY MEAN AGES.

NUMBER OF SUICIDE ATTEMPTS	MEAN AGE IN YEARS		
	MALE	FEMALE	TOTAL(S.D.)
1	25.97(8.34)	23.82(7.43)	24.49(7.75)
2	30.33(4.16)	24.17(5.34)	26.22(5.63)
3	---	17.00(1.41)	17.00(1.41)
4	31.00	15.00	23.00(11.3)
>4	44.00	---	44.00

The patients that made more than one suicide attempt ranged from 13 years to 50 years with a mean age of 23.82 years (S.D. 7.43) for females and 25.97 years (S.D. 8.34) for males. The total mean age was 24.49 years (SD 7.75). The patients that made more than one suicide attempt ranged between 15 years and 45 years with a mean age of 21.56 years for females and 33.20 years for males. However, it is important to note that there is a significant reaction between re-attempt and gender on age i.e. the association of re-attempt and age depends on gender ($p < 0.5$). TABLE V shows the mean ages for males and females according to the number of attempts. Whereas those males that made more than one attempt tend to be

older than those who made first attempts. Females that made more than one attempt tend to be younger than those that attempt only once.

Although 83% of first attempters and 86% of those patients who made more than one attempt used ingestion as a method. The difference was not significant ($p > 0.5$).

Twelve (9%) patients had some contact previously with psychiatric services. No sexual preponderance was found. A significant number (33%) of the patients who had psychiatric treatment had made more than one suicide attempt ($p < 0.05$).

2.5.6 FAMILY HISTORY

In only 3% of the cases was a positive family history of suicide attempt established. Their ages ranged between 16 years and 30 years with a mean age of 24.25 years (SD 6.02). In 2% of patients no information concerning family history was available.

2.5.7 PROBABILITY OF DISCOVERY

Diagram 5 shows the probabilities of discovery. In 63 (49%) of the cases it was highly probable that the attempt would be discovered. The patient either told others of the attempt immediately or soon after an overdose was taken, or it had actually been done in front of others, or the patient's suicidal behaviour had been noticeable to others. In 31 (24%) of the cases a significant person (a spouse, a relative or a friend) had been in the immediate vicinity (generally elsewhere in the house) at the time of the attempt. In 16 (12%) of the cases it was considered highly improbable that the attempt would be discovered. The patient usually made sure that no one would be around and it was only by accident that he or she had been found. In 20 (15%) of the cases the probability of discovery by others could not be ascertained as information was inadequate.

DIAGRAM 5
PROBABILITY OF DISCOVERY OF SUICIDE ATTEMPT

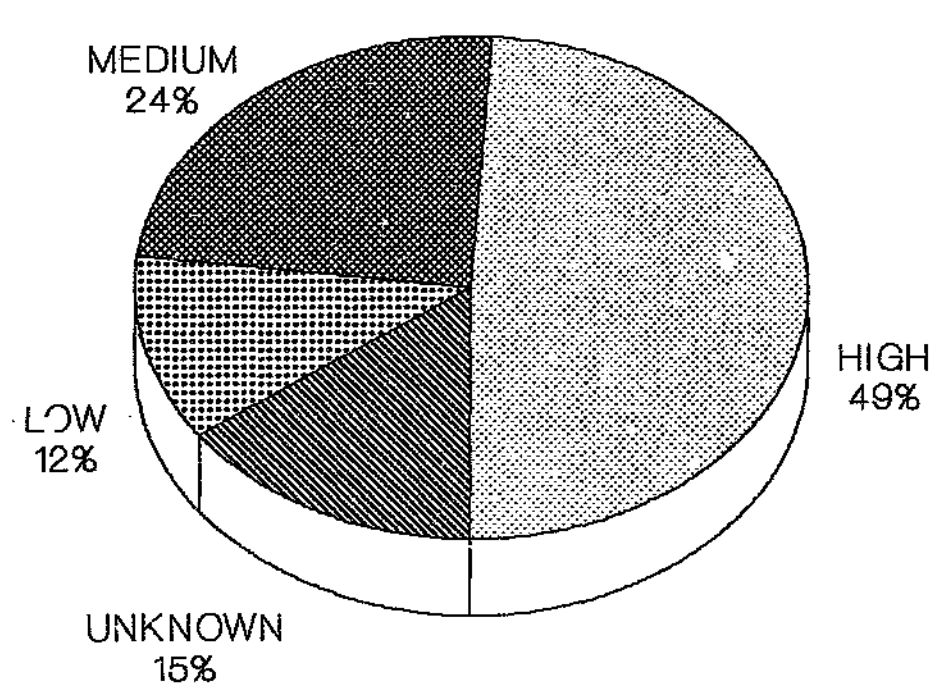


Table VI tabulates the probability of discovery by gender and mean ages. In the high probability group the age ranged between 15 and 45 years and that for the low probability between 16 to 50 years. The relationship of probability of discovery to gender was not significant ($p > 0.05$).

TABLE VI: RELATIONSHIP OF PROBABILITY OF DISCOVERY TO GENDER AND MEAN AGE.

PROBABILITY	F"EQ	MALE	FEMALE	MEAN AGE
HIGH	63(49%)	16(25%)	47(75%)	24.97
MEDIUM	31(24%)	12(39%)	19(61%)	24.40
LOW	16(12%)	5(31%)	11(69%)	24.50
UNKNOWN	20(15%)	8(40%)	12(60%)	23.95

Table VII presents the method of attempt by probability of discovery of the suicide attempt. Ingestion was as common in the lower probabilities of discovery as in the higher probabilities of discovery.

TABLE VII: THE RELATIONSHIP OF METHOD OF ATTEMPT BY PROBABILITY OF DISCOVERY.

METHOD	FREQ	PROBABILITY			
		HIGH	MEDIUM	LOW	UNKNOWN
INGEST	108	56(52%)	23(21%)	13(12%)	16(15%)
HANGING	7	3(43%)	1(14%)	1(14%)	2(29%)
BURNING	7	3(43%)	3(43%)	--	1(14%)
CUTTING	6	1(17%)	3(50%)	2(33%)	--
OTHER	2	--	1(50%)	--	1(50%)

2.5.8 ALCOHOL AND DRUGS

Thirty (23%) of the patients had taken alcohol prior to the suicide attempt. Significantly more males (67%) were under the influence of alcohol at the time of the attempt ($p < 0.001$). The mean age of those patients under the influence of alcohol at the time of attempt was 28 years for males and 29 years for females.

2.5.9 PRECIPITATING FACTORS

Table VIII tabulates the precipitating factors, its frequency and its relationship to gender. Ninety-one (70%) gave interpersonal dispute as the precipitating factor. In 47 (36%) the conflict was with a spouse, a close relative or a member of the extended family, and in 44 (34%) cases the conflict involved a lover or romantic attachment. Five percent of the patients experienced financial problems, 3% could not cope with problems at work or school, 9% had medical problems which they could not accept or could not cope with and in 9% it was related to substance abuse. Included in the 5% of cases (listed as other in the table), a 16 year old girl was almost raped, a 22 year old female complained of primary infertility, one patient had accommodation problems, one made the suicide attempt after the accidental death of a friend and 3 patients attempted suicide because of unwanted pregnancies.

Significantly more females (87%) than males (34%) made a suicide attempt because of interpersonal dispute ($p < 0.001$).

TABLE VIII: THE RELATIONSHIP BETWEEN PRECIPITATING FACTORS, FREQUENCY AND GENDER.

PRECIPITANT	FREQ	MALE	FEMALE
INTERPERSONAL			
GROUP I	47 (36%)	7 (15%)	40 (85%)
GROUP II	44 (34%)	7 (16%)	37 (84%)
FINANCIAL	6 (5%)	6 (100%)	---
SCHOOL/WORK	4 (3%)	3 (75%)	1 (25%)
MEDICAL	11 (8.5%)	7 (64%)	4 (36%)
SUBST. ABUSE	11 (8.5%)	9 (82%)	2 (18%)
OTHER	7 (5%)	2 (29%)	5 (71%)

NOTE: GROUP ONE = Extended Family, Spouse, Relative.
GROUP TWO = Lover, Romantic Attachment.
SUBST.ABUSE = Substance Abuse

2.5.10 PSYCHIATRIC DIAGNOSES.

A substantial number of patients did not suffer from a clear cut mental illness and were diagnosed as having a transient situational disturbance. Table IX shows the frequency of distribution to the principle diagnoses by gender and mean age. The majority of patients (77%) were given a diagnoses of transient

situational disturbance, whereas 9% were diagnosed as suffering from a psychoses, 9% from depression and 5% as having a personality disorder or traits of a personality disorder. Of the 9% diagnosed as suffering from depression three patients had a major depression, and the other eight had a "reactive" depression. Significantly more patients had a diagnoses of transient situational disturbance than the other diagnoses combined. The females tended to show a significantly higher percentage of transient situational disturbance ($p < 0.005$).

The patiehts with a transient situational disturbance had a mean age of 23.99 years (SD 7.66), the depressives had a mean age of 27.43 years (SD 6.27) and those with a psychoses a mean age of 29.50 years (SD 8.13). No significant difference is found in the mean ages in the different diagnostic categories ($p > 0.5$).

TABLE IX: THE RELATIONSHIP OF DIAGNOSES TO GENDER AND MEAN AGE.

DIAGNOSES	FREQ	MALE	FEMALE	MEAN AGE
T.S.D.	100(77%)	25(25%)	75(75%)	23.99(7.7)
PSYCHOSES	12(9%)	10(83%)	2(17%)	29.50(8.1)
DEPRESSION	11(9%)	5(45%)	6(55%)	27.18(6.3)
PERSONALITY	7(5%)	1(14%)	6(86%)	23.43(8.9)

NOTE: T.S.D. = Transient Situational Disturbance.
PERSONALITY = Personality disorder or Traits.

Table X shows the method of attempt by diagnoses. Significantly more patients (88%) diagnosed as having a transient situational disturbance used ingestion as a method of attempt ($p < 0.01$).

TABLE X: THE RELATIONSHIP OF DIAGNOSES TO METHOD OF ATTEMPT.

DIAGNOSES	INGESTION	OTHER METHODS
TSD	88 (88%)	12 (12%)
PSYCHIATRIC	20 (67%)	10 (33%)
PSYCHOSES	5 (42%)	7 (58%)
DEPRESSION	8 (73%)	3 (27%)
PERSONALITY	7 (100%)	---

In 51% of the patients with a diagnoses of transient situational disturbance it was highly probable that the suicide attempt would have been discovered.

There is a significant relationship between past psychiatric treatment and current diagnoses of a transient situational disturbance and other diagnoses ($p < 0.001$). Of the 12 patients that had previously been treated for psychiatric illness. None were currently diagnosed as having a transient situational disturbance; they were either diagnosed as depression, psychoses or personality disorder. Fifteen percent of the patients who had no previous psychiatric history had were now diagnosed as having a psychiatric illness (See Table XI).

TABLE XI: THE RELATIONSHIP OF DIAGNOSES TO PAST PSYCHIATRIC HISTORY.

DIAGNOSES	PAST PSYCHIATRIC HISTORY	
	YES	NO
T.S.D.	---	100 (100%)
PSYCH DIAGNOSES	12 (40%)	18 (60%)
PSYCHOSES	7 (58%)	5 (42%)
DEPRESSION	3 (27%)	8 (73%)
PERSONALITY	2 (29%)	5 (71%)

2.5.11 PHARMACOLOGICAL TREATMENT

As shown in Table XII 69% of the patients received no pharmacological treatment, 13% were given an antidepressant, 7% an antipsychotic, 4% an anxiolytic, 5% were prescribed more than one of the above, and 2% were treated with other medication such as anticonvulsants or antidiabetic drugs.

TABLE XII: THE RELATIONSHIP OF PHARMACOLOGICAL TREATMENT TO DIAGNOSES

TREATMENT	T.S.D.	PSYCHOSES	DEPRES.	PERSONALITY
NIL	80(89%)	1(1%)	3(3%)	6(7%)
ANTIDEP.	8(47%)	--	8(47%)	1(6%)
ANTIPSY.	2(22%)	7(78%)	--	--
ANXIOLYT.	4(80%)	1(20%)	--	--
MULTIPLE	4(67%)	2(33%)	--	--
OTHER	2(67%)	1(33%)	--	--

NOTE: ANTIDEP. = ANTIDEPRESSANT.

ANTIPSY. = ANTIPSYCHOTIC.

ANXIOLYT. = ANXIOLYTIC

PERSONALITY = PERSONALITY DISORDER

Although there is a significant relationship ($p < 0.001$) between diagnoses and treatment three important issues emerge. Firstly, of the 100 cases diagnosed as having a transient situational disturbance, 80% received no pharmacological treatment, 18% were treated with psychotropic medication and 2% were treated with other medication. Secondly, of the 11 cases that were diagnosed as depressed 27% were not given any medication.

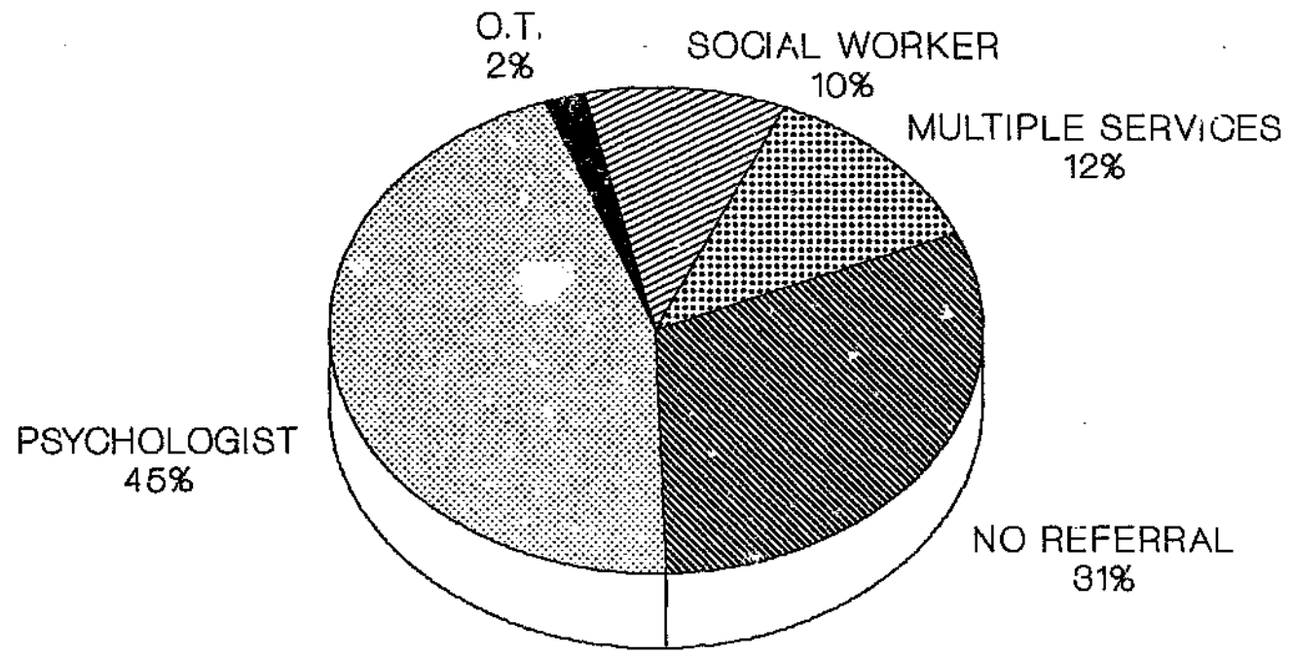
Thirdly, 8% of patients who were diagnosed as being psychotic were not pharmacologically treated.

2.5.12 REFERRAL TO SOCIAL SERVICES

Diagram 6 shows the frequency of referrals to social services. Fourty five percent of the patients were referred to a psychologist, 10% to a social worker, 2% to a occupational therapist, and 11% of the patients were referred to more than one service. Thirty one percent of the patients were not referred to any service.

Twenty nine percent of the patients who made more than one suicide attempt were not referred to any of the social services available.

DIAGRAM 6
REFERRAL TO SOCIAL SERVICES



2.5.13 FOLLOW UP

Fifty six (43%) of the patients were not given any follow-up appointment after their initial interview with a member of the psychiatric team. Of the 74 patients that were given a follow-up appointment either by the psychiatrist, psychologist, social worker or occupational therapist only 19 (25%) kept their appointments.

Of the 40 patients that were treated pharmacologically, 28 (70%) were given follow-up appointments. The default rate of this group was 75%.
Of the 30 patients that were diagnosed as psychiatrically ill, 72% were given follow-up appointments. Seventy one percent of this group defaulted.

Of the patients that had made more than one suicide attempt, 62% were given follow-ups, and 88% of this group defaulted.

2.5.14 RE-EVALUATION

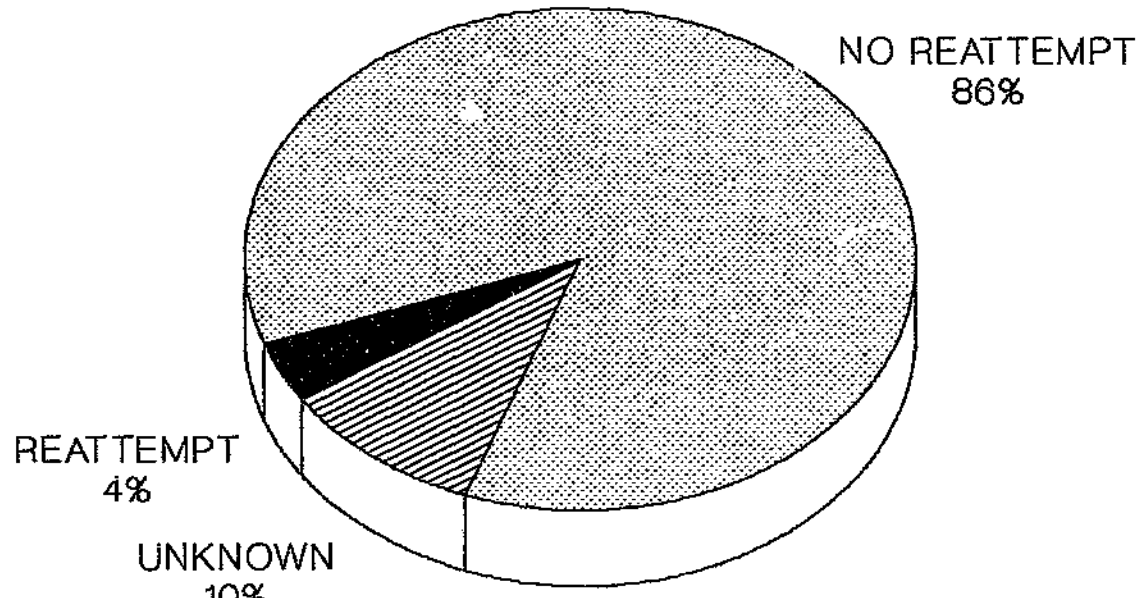
The author attempted to contact all patients in this study after a minimum period of six months. The period varied from six months to a year due to problems in locating the person. Those that could not be located had either moved with no forwarding address or the wrong address had been given on admission to hospital. Contact was made either by telephone or a home visit by the author and a nursing sister and in a few cases by the nursing sister herself. Generally, the home visit was welcomed. The patients as well as their families appreciated the concern shown especially when they were informed that they could return to the clinic whenever a crisis arose. A number of patients who had defaulted gave financial problems as a reason for the default. There were a fair number of patients who felt that they needed some help and support but had not come in for help because they thought they would be turned away.

Diagram 7 shows the distribution of the patients that were re-evaluated. Ten percent of the patients could not be contacted. Of the remaining 117 patients 5 (4%) had made another suicide attempt, with 3 ingesting a substance (2 had taken a household substance and one a corrosive substance),

1 attempted to cut himself and the other had run in front of a car.

The mean age of those who made another attempt was 25 years (S.D. 7.62). Sixty percent of this group were females.

DIAGRAM 7
RE-EVALUATION OF SUICIDE ATTEMPTORS



CHAPTER 3

DISCUSSION.

A limitation of the study is that it is restricted to hospital based patients. The study also relied on patients being referred to the psychiatric clinic at the hospital.

A second problem that arises out of this study is that, being a retrospective analysis, the study depended on information from case notes. Consequently, a number of important categories such as employment status, social class and marital status could not be analysed. In addition, in this population group, marital status is sometimes difficult to ascertain because traditional marriages are not recognised by the law.

A third limitation was the lack of collateral information which is very important to fully assess a suicide attempt. Often the information received from these patients tend to be unreliable.

Although one cannot comment on the rate of attempted suicide in the black community of Soweto, attempted suicide constitutes 10% of the patients seen at the psychiatric clinic, Baragwanath Hospital.

Bean (1974) stated that self-poisoning accounted for 10% of all hospital admissions and about 20% of hospital emergencies in the United Kingdom.

In common with other studies this sample included significantly more females than males. Parasuicide was often used for secondary gain as a highly effective way of influencing others. The inference, as suggested by Stengel (1977), can thus be made that women use suicidal acts as an appeal to their environment for emotional support more frequently than men as it is a more acceptable strategy for them. There may, however, be other reasons for the differences in the sex distribution. The female preponderance of 2.2:1 found in this study is in keeping with the ratios quoted in European studies. However, in Third World countries there appears to be an equal male to female ratio and even sometimes a male predominance. The male : female ratios quoted by Peiser et al (1987) for Nigeria is 1:1.2 to 1:2, that for Lagos is 1:1.5, and 1:1.3 for New Guinea.

The age group at greatest risk would appear to be between 20-29 years of age, as also demonstrated by Minnaar et al (1980) in their study at Addington Hospital. The peak age amongst females was found in the 20-29 year group which corresponded with Minnaars findings but is older than that found in European countries. Hawton & Catalan (1987) in

Oxford found the peak to be in the 15-19 year group. The peak age amongst males was in the 20-29 years and 30-39 year age group. This peak is in keeping with that found amongst Oxford men.
The differences in the peaks could be explained by the fact that men have better access to alternative outlets for dealing with distress, such as aggressive behaviour, alcohol an/or drug abuse. It is when these outlets no longer help that they resort to suicide attempts.

In this study, a rapid decline in suicide attempts was found after the age of 39 years. Hendin (1969) supported the view that suicide and parasuicide is rare amongst elderly blacks. The presumption quoted by Griffith et al (1989), that American blacks reaching the advanced years are most likely to be those who have adapted to the stress of daily life and grown accustomed to the deprivation that characterises blacks status in comparison with whites, could be applicable to blacks in South Africa.

The relationship of attempted suicide to seasonal fluctuation is still very debatable. According to Lester (1971) there is some evidence that more attempts occur in the uncomfortable warm months of the year, where possibly the increased temperatures may lead to instability. The decline in suicide attempts towards June (cooler months) was also found by Minnaar. No inferences can be made from this study as it was only over a six month period.

The availability of a suitable method and also the preference of women for non-violent methods is an influencing factor in the method of attempt employed. Ingestion was by far the commonest method of attempt. In accordance with Minnaar et al (1980) and Peiser (1987), this study shows a significant preference, especially among females, for non-violent methods. The easy availability of household detergents such as jik, javel and other cleaning agents as well as chemical substances like thinners, rat poison and battery acid made these the commonest choice. Gelfand (1976) reported that the Rhodesian african female took any poisonous agent close at hand. The differences in the substances ingested found in this study and the study by Minnaar et al among South African whites could be explained by the fact that Soweto is largely a Third World society with poor and inadequate medical facilities. Hence, substances like benzodiazepines,

antidepressants and analgesics are not readily available.
With the improvement of medical facilities the rise in the incidence of benzodiazepine use can be foreseen.

For the majority of patients (89%) in this study, this was their first attempt. This is in keeping with Merrill et al (1987) findings amongst West Indian residents in the United kingdom but Minnaar et al (1980) in their study among South African whites reported a higher incidence of previous suicide attempts (36%). Platt et al (1988) found the incidence to be between 40 and 46% in Oxford and Edinburgh. As in this study, they too did not find the difference in gender to be significant. The small percentage (5%) of cases with personality problems could account for the low incidence of previous suicide attempts.

In a large number of cases it was either definite or highly probable that the suicide attempt would come to the notice of others. The attempt was an appeal to others to bring about changes in a situation the patient regarded, at the time, as intolerable. Stengel (1977) pointed out that most suicidal acts were potentially discoverable.

The major precipitating factor was interpersonal conflict with either a spouse, lover or parent. This trend has been reported in many studies - Pillay et al (1987) in Pietermaritzburg, Edwards et al (1981) in Durban, and Stengel (1977) in the United Kingdom.

The finding of alcohol or drug consumption prior to the attempt in 23% of cases is in keeping with the Oxford figure of 25% quoted by Hawton and Catalan (1987). There were also significantly more males than females in this group.

The diagnoses of a transient situational disturbance in the majority of cases is in keeping with other studies on suicide attempt. In a large proportion of those parasuicides diagnosed as having a transient situational disturbance the attempt did not appear to be premeditated. These patients tend to be slightly younger than those who had a mental disorder. The patients diagnosed as having a mental illness tended to use ingestion more than violent methods.

Eighteen percent of the patients diagnosed as having a transient situational disturbance were prescribed a psychotropic or anxiolytic and yet 27% of the patients diagnosed as having a depression were given no medication. There obviously seems to be a problem in the prescribing of medication.

This erratic prescriptions could lead to the change in pattern of substances used in self-poisoning.

Little use was made of social services although the facilities were available. In majority of the cases the precipitating factor was an interpersonal dispute and these patients could have benefited from seeing a psychologist or social worker.

Approximately half of the cases were given a follow up appointment. Seventy five percent of these patients defaulted. The major reason given for defaulting was the crisis had resolved or they could now cope with the situation. Kreitman (1979) reported that up to one-half of patients given out-patient appointments one week after a parasuicide attempt fail to attend. They gave a number of possible explanations for this. Firstly, parasuicide is often the result of a crisis which may have resolved (albeit temporarily) by the end of a further week. Secondly, someone in a state of heightened tension may find one week too long to wait, and may resort to other strategies to deal with his problems. Thirdly, many parasuicides may find a psychiatric label unacceptable in the context of their problems, and fourthly, an appointment made for a fixed hour may not fit the need for immediate action which the patients subculture had inculcated in him as a habit pattern. In this population group

it is found that a person will only seek psychiatric help in severe circumstances because of label attached to psychiatry.

The reattempt rate, in this study, after a minimum period of six months was 4% with a male : female ratio of 1:1.5. This ratio is in keeping with studies done on blacks in other countries.

CHAPTER 4

CONCLUSION

There is a great need for epidemiological studies in this field and especially comparitive studies between the different race groups in this country.

The results are similar to those study from other cultural groups with regard to method employed, the higher percentage of cases in females, the act occurring near help, the relative absence of severe psychiatric disorder with transient situational disturbance being by far the commonest diagnosis and precipitating factor most commonly being interpersonal dispute.

With regard to age, the females in this study tended to be slightly older than in European studies. The rapid decline after the age of 40 years is in keeping with the theories that the elderly black very rarely attempt suicide.

The majority of patients in this study had made only one suicide attempt. This is in keeping with studies done in Africa and amongst blacks in America. It differs from studies on American and European whites where the recurrence rate of suicide attempt is much higher.

The drug most commonly ingested was a substance that was most easily obtainable. No patients in this study had overdosed on alcohol. This is surprising as alcohol is so easily obtainable in this community. It could be that the suicide attempt where alcohol was ingested as the means of attempt was actually missed. The patient regarded as having had too much to drink, both by family as well as casualty officers. The lack of knowledge, in this community, of ill effects of alcohol could be responsible.

The decline in prescribing psychotropics in the United Kingdom was followed by a decline in self-poisoning. Hawton and Catalan (1987), emphasize that statistical associations do not, of course, demonstrate causal connections. It could be argued that it is an important factor especially when such drugs are prescribed inappropriately. The liberal prescribing of psychotropics and anxiolytics is very worrying and could lead to a change in pattern of substance ingested in self-poisoning. There should be strict guidelines regarding the prescribing of medication in this group of patients.

It is well recognised that because of the extent of the problem of attempted suicide, psychiatrist cannot meet all the needs of these patients. The involvement of psychologists, social workers, occupational therapists and nurses in management programmes where they work in collaboration with psychiatrists is an important development in the management of suicide attempt. There is a great lack of social workers, psychologists and occupational therapists in this area. However, in this situation these facilities were readily available but grossly under utilised by the psychiatric doctors.

REFERENCES

AGREW H. (1983). Life at risk: markers of suicidality in depression. Psych Dev. 1:87-104.

ASBERG M. et al. (1976). 5-HIAA in the cerebrospinal fluid: a biochemical suicide predictor? Arch Gen Psych. 33:1193-1197.

AYYSO-GUTIEPREZ J.L. et al. (1987). Pituitary-adrenal sinhibition and suicide attempts in depressed patients. Biol Psychiatry 22:1409-1412.

BAECHLEP J. Suicides. 1st ED. Oxford: Basil Blackwell. (1979).

BARRACLOJGH B.M. (1987). The suicide rate of epilepsy. Acta Psych Scand. 76:339-345.

BARRACLOUGH B. et al. (1974). A hundred cases of suicide: Clinical Aspects. Br J Psych. 125:355-373.

BARRACLOUGH B. et al. (1975). Depression followed by suicide; a comparison of depressed suicides with living depressives. Psychol Med. 5:55-61.

BEAN PHILIP. (1974). Patterns of self-poisoning. Br J Prev Soc Med. 28:24-31.

BECK A.T. et al. (1985). Hopelessness and eventual suicide: A 10 year prospective study of patients of patients hospitalised with suicide ideation. Am J Psych. 142:5, 559-563.

BLACK D.W. (1989). Suicide and Parasuicide. Current Opinion in Psych. 2:225-229.

BLACK D.W. et al. (1988). Effects of psychoses on Suicide Risk in 1593 patients with unipolar and bipolar affective disorder. Am J Psych. 145:7, 849-852.

BREETZKE K.A. (1988). Suicide in Cape Town - is the challenge being met effectively? S.A. Medical J. 73:19-23.

BROWN G. et al. (1982). Aggression, suicide and serotonin: relationships to CSF amine metabolites. Am J Psych. 139:741-746.

BUSH J.A. (1976). Suicide and Blackr; a conceptual framework. Suicide Life Threat Beh. 6:216-222.

CASEY P.R. (1989). Personality disorder and suicide intent. Acta Psych Scand. 79:290-295.

CHEETHAM S.C. et al. (1989). Serotonin concentrations and turnover in brains of depressed suicides. Brain Res. (Netherlands). 502:2, 332-340.

CHEETHAM R.W.S. et al. (1983). Deculturation as a precipitant of parasuicide in a Asian group. S.A. Mediese Tydskrif. 63:942-945.

CORYELL W. (1981). Obsessive - Compulsive Disorder and Primary Unipolar Depression: comparisons of background, family history, course and mortality. J Nerv & Ment Dis. 169:4, 220-224.

DOROVINIZ-ZIS K. and ZIS A.P. (1987). Increased adrenal weight in victims of violent suicide. Am J Psych. 144:1214-1215.

DRAKE R.E. et al. (1984). Suicide among Schizophrenics: who is at risk? J Nerv & Ment Dis. 172:613-617.

EDWARDS S.D. et al (1981). Parasuicide in the Durban Indian Community. S.A.Medical J 60:241-243.

EFERAKEYA A.E. (1984). Drugs and suicide attempts in Benin City, Nigeria. Br J Psych 145:70-73.

FYER M.R. et al (1988). Suicide attempts in patients with borderline personality disorder. Am J Psych 145:6, 737-739.

GELFAND M. (1976). Suicide and attempted suicide in the urban and rural African in Rhodesia. Central Afr J Med 22:10, 203-205.

GERMAN G.A. (1982). Aspects of clinical psychiatry in Sub-Saharan Africa. Br J Psych. 121:461-479.

GRIFFITH E.E.H. et al (1989). Recent trends in suicide and homicide among blacks. JAMA 262:16, 2265-2269.

GUZEBAND ROBINS E. (1970). Suicide and primary affective disorders. Br J Psych 117:437-438.

HASSANYCH F. et al. (1981). Self-poisoning: A review of a 100 cases. The Practitioner. 225:872-877.

HAWTON K. (1987). Assessment of suicide risk. Br J Psych. 150:145-153.

HAWTON K, & CATALAN J. Attempted Suicide. A Practical guide to its Nature and Management. 2nd. ED. Oxford:Medical Publications. (1987).

HAWTON K. et al. (1989). Alcoholism, alcohol and attempted suicide. Alcohol and Alcoholism. 24:1, 3-9.

HAWTON K. et al. (1986). Unemplomemt and attempted suicide among men in Oxford. Health Trends. 18: 29-32.

HENDIN H. (1969). Black Suicide. Arch Gen Psych. 21:401-422.

KORNER A et al. (1987). The thyrotropin response to thyrotropin releasing hormone as a biological marker of suicide risk in depressed patients. Acta Psych Scand. 76:355-358.

KORPI E.R. et al. (1988). GABA concentrations in the forebrain areas of suicide victums. Biol Psych. 23:109-114.

KOVACS M, et al (1981). One year follow-up of depressed patients treated with cognitive therapy or pharmacotherapy. Arch Gen Psych. 38:33-39.

KREITMAN N. (1979). Reflections on the management of parasuicide. Br J Psych. 125:275-279.

KREITMAN N. Suicide and Parasuicide in Kendell and Zealley (eds), Companion to Psychiatric Studies, 4th. ED. Edinburgh, London, Melbourn & New York: Churchill Livingstone (1988).

LESTER D. (1989). Personal violence (suicide and homicide) in South Africa. Acta Psych Scand. 79: 235-237.

MARAZZITI D. et al. (1989). Further evidence supporting the role of serotonin system in suicidal behaviour. A preliminary study of suicide attempts. Acta Psych Scand. 80:4, 322-324.

MENGECH H.N.K. et al. (1984). Attempted Suicide (parasuicide) in Nairobi, Kenya. Acta Psych Scand. 69:416-419.

MENDEZ M.F. et al. (1989). Causative factors for suicide attempts by Overdose in Epiliptics. Arch Neuro. 46:1065-1068.

MERRIL J. et al. (1987). Ethnic differences in self-poisoning. A comparison of West Indian and White groups. Br J Psych. 150:765-768.

MILES C.P. (1977). Conditions predisposing to suicide: A Review. J Nerv & Ment Disease. 164:4, 231-246.

MINNAAR et al. (1980). A current study of parasuicide in Durban. S.A.Medical J. 57:81, 204-207.

MONTGOMERY S. et al. (1982). Pharmacological prevention of suicidal behaviour. J Aff Disord. 4:291-298.

OVENSTONE I.M.K. et al. (1974). Two syndromes of suicide. Br J Psych. 124:336-345.

PARKER A. (1981). The meaning of attempted suicide to young parasuicides: A Repertory Grid Study. Br J Psych. 139:306-312.

PEDERSON A.M. et al. (1973). Epidemiological differences between white and nonwhite suicide attempters. Am J Psych. 130:1071-1076.

PEISER D.J.W. et al. (1987). Attempted suicide (parasuicide). Psychotherapeia. 14:1, 22-24.

PIAGET J. The child's concept of the world. New York; Littlefield Adams, Pattersons. 1960.

PILLAY A.I. et al. (1987). A study of deliberate self-harm at a Pietermaritzburg general hospital.S.A. Medica. J. 72:258-259.

PLATT S. (1984). Unemployment and suicidal behaviour: a review of the literature. Soc Sci. & Med. 19:93-115.

PLATT S. et al. (1984). Trends in parasuicide and unemployment among men in Edinburgh 1968 - 1982. Br Med J. 289:1029-1032.

PLATT S. (1986). Parasuicide and unemployment. Br J Psych. 149:401-405.

PLATT S. et al. (1988). Recent clinical and epidemiological trends in parasuicide in Edinburgh and Oxford: a tail of two cities. Psychological Med. 18:405-418.

ROOSE S.P. et al. (1983). Depression, delusions, and suicide. Am J Psych. 140:1159-1162.

ROSS C.A. et al. (. Suicide and parasuicide in multiple personality disorder. Psychiatry 52: 365-371.

ROY A. (1982). Risk factors for suicide in psychiatric patients. Arch Gen Psych. 39:1089-1095.

ROY A.et al. (1988). Suicidal behaviour, impulsiveness and serotonin. Acta Psych Scand. 78:529-535.

SALAMA A.A. (1988). Depression and suicide in schizophrenic patients. Suicide Life Threat Beh. 18:379-384.

SIMS A. et al. (1978). The pattern of mortality in severe neuroses. Br J Psych. 133:299-305.

STANLEY M. et al. (1989). Biochemical studies in suicide victims: current findings and future implications. Suicide Life Threat Beh. 19:30-42.

STENGEL E. Suicide and Attempted Suicide. New Zealand; Penguin. (1977).

THORELL L.H. (1987). Electrodermal activity in suicidal and nonsuicidal depressive patients and in matched healthy subjects. Acta Psych Scand. 76: 420-430.

TRASKMAN L. et al. (1981). Monoamine metabolites in CSF and suicidal behaviour. Arch Gen Psych. 38: 631-636.

WEISMAN M.M. et al. (1989). Suicidal ideation and suicide attempts in panic disorder and attacks. New Eng J Med. 321:1209-1214.

---oOo---

APPENDIX I

SUICIDE ATTEMPT: RETROSPECTIVE STUDY.

DATA SCHEDULE.

NAME:.....

ADDRESS:.....

AGE:..... TEL:.....

SEX: M F

DATE OF ATTEMPT:

JAN	
FEB	
MARCH	
APRIL	
MAY	
JUNE	

METHOD OF ATTEMPT:

INGESTION	
HANGING	
BURNING	
CUTTING	
OTHER	

SPECIFY:.....

AGENT INGESTED:

HOUSEHOLD SUBSTANCE	
NON-NARCOTIC ANALGESIC	
BENZODIAZEPINES & TRANQUILIZERS	
ANTIDEPRESSANTS	
ANTICONVULSANTS	
PESTICIDES	
CORROSIVE SUBSTANCES	
ALCOHOL	
STREET DRUGS	
OTHER	

SPECIFY:.....

NO. OF SUICIDE ATTEMPTS:

1	
2	
3	
4	
>4	

FAMILY HISTORY OF SUICIDE ATTEMPT:

Y	
N	

PROBABILITY OF DISCOVERY:

HIGH	
MEDIUM	
LOW	
UNKNOWN	

PRECIPITATING FACTORS:

INTERPERSONAL DISPUTE INVOLVING:	
EXTENDED FAMILY, SPOUSE, RELATIVE.	
LOVER OR ROMANTIC ATTACHMENT.	
FINANCIAL	
SCHOOL/WORK RELATED	
MEDICAL	
SUBSTANCE ABUSE	
OTHER	

SPECIFY.....

INGESTION OF ALCOHOL OR DRUGS PRIOR TO ATTEMPT:

Y	
N	

PAST PSYCHIATRIC HISTORY:

Y	
N	

PSYCHIATRIC DIAGNOSIS:

NIL	
PSYCHOSIS	
DEPRESSION	
PERSONALITY DISORDER/TRAITS	
TRANSIENT SITUATIONAL DISORDER	

PHARMACOLOGICAL TREATMENT:

NIL	
ANTIDEPRESSANTS	
ANTIPSYCHOTICS	
ANXIOLYTICS	
OTHER	

SPECIFY:.....

REFERRAL TO SOCIAL SERVICES:

PSYCHOLOGIST	
SOCIAL WORKER	
OCCUPATIONAL THERAPIST	
NIL	

FOLLOW-UP APPOINTMENT:

Y	
N	

DEFAULTED:

Y	
N	

FOLLOW-UP INTERVIEW:

DATE:.....

SUICIDE RE-ATTEMPTED SINCE DISCHARGE:

Y	
N	
UNKNOWN	

F.Y.JEENAH.

---oOo---

Author: Jeenah F Y
Name of thesis: suicide attemps: a retrospective study

PUBLISHER:
University of the Witwatersrand, Johannesburg
©2015

LEGALNOTICES:

Copyright Notice: All materials on the University of the Witwatersrand, Johannesburg Library website are protected by South African copyright law and may not be distributed, transmitted, displayed or otherwise published in any format, without the prior written permission of the copyright owner.

Disclaimer and Terms of Use: Provided that you maintain all copyright and other notices contained therein, you may download material (one machine readable copy and one print copy per page)for your personal and/or educational non-commercial use only.

The University of the Witwatersrand, Johannesburg, is not responsible for any errors or omissions and excludes any and all liability for any errors in or omissions from the information on the Library website.