AN INVESTIGATION INTO THE RELATIONSHIP BETWEEN SUICIDE INTENT, ATTRIBUTIONAL STYLE AND COPING STYLE IN A SAMPLE OF FEMALE INDIAN AND COLOURED ADOLESCENT PARASUICIDES.

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ABSTRACT

This study investigated the relationship between suicide intent, attributional style and coping preferences among female adolescent Indian and Coloured parasuicides in Pietermaritzburg, South Africa. Twenty-five female adolescent parasuicide subjects were compared with twenty five normal adolescent control subjects. The following empirical measures were used to evaluate differences: The Suicide Attitude Scale (devised by the author), the Suicide Intent Scale, Attributional Style Questionnaire, and Ways of Coping Checklist. Demographic data were obtained using a biographical questionnaire. Parasuicide subjects were matched to control subjects according to age, race and standard of education. The parasuicides were tested in the hospital setting shortly after the parasuicide event. Control subjects were selected from three high schools in the Northdale and Eastwood areas and completed questionnaires while in the school context. The control subjects were not screened for previous suicide attempts.

Overall, parasuicides scored higher means on internality, globality and stability for bad events. However, the difference from the control subjects was not significant. Control subjects scored higher means on internality, globality and stability for good events. Nevertheless, the difference from parasuicides was significant only on internality and globality. The difference between the parasuicide and control groups on the acceptance, growth, help-seeking and emotional witholding subcales of the Ways of Coping Checklist were significant. The control group exhibited higher scores on acceptance, growth and help-seeking, while the parasuicides exhibited higher scores on the emotional-witholding scale. Suicide intent was not significantly correlated with any of the attributional or coping scales for the parasuicide subjects, although the Suicide Attitude Scale scores were significantly correlated with the problem-focused coping scale for the control group. Thus parasuicides evidence greater use of a depressive attributional style when confronted with life stresses and evidence greater use of emotion-focused coping strategies. Together these two factors may account for their decision to attempt suicide. The control group evidence less of a tendency towards a depressive attributional style when confronted with life stresses, and evidence greater use of

problem-focused coping strategies. These two factors may prevent control subjects from attempting suicide. These findings may further inform effective prevention programmes involving female adolescent parasuicides.

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CHAPTER ONE: SUICIDE AND PARASUICIDE

1.1. INTRODUCTION

The problem of suicidal behaviour is all pervasive. Alvarez (1987) states that "suicide has permeated western culture like a dye that cannot be washed out" (Alvarez, 1987, cited in Boya, 1990, p.1). This phenomenon has been with us for millennia. Evans and Farberow (1988) note that the first known writing about suicide appeared in Egypt somewhere between 2280 and 2000 B.C. (cited in Davis & Sandoval, 1991). Suicide seems to have occurred in all groups and societies in which there is surviving documentary evidence and its precise significance has always puzzled man (Morgan, 1979). Attitudes towards suicide have been characterized by ambivalence, and have varied considerably both with time and from one society to another. Suicide is defined as "the human act of self-inflicted, self-intended cessation: the willed permanent stopping of consciousness" (cited in Bongar, 1992, p.xv).

Both internationally and locally the problem of completed and attempted suicide represents a major health problem. Each year almost 30 000 individuals take their own lives, making suicide the eighth leading cause of death in the United States of America (USA) (Alcohol and Drug Abuse, Mental Health Administration, 1989; Hirschfeld & Davidson, 1988, cited in Bongar, 1992). Annually in the USA of every 100 000 people, 12.2 will die of suicide, and there is reported to be a high of 17.4 and a low of 9.8 for the general population (Clark & Fawcett, 1992, cited in Bongar, 1992). In South Africa the suicide rate has increased dramatically over the past 20 to 30 years. In Pietermaritzburg alone the figures for the white and Indian population groups ranged from a low of 2.4 in 1982 to a high of 22.3 in 1991, with a mean of 13.89 (Naidoo, 1993). These figures are comparable with international rates ranging from 3 to 45 per 100 000 (Diekstra, 1987). Clearly, within this ten year period there has been an increase in suicide in both white and Indian groups (Naidoo, 1993). Earlier studies had confirmed this South African trend (Edwards, Cheetham, Naidoo & Griffiths, 1981; Bhana, 1981) and local studies have focused on the increase among Indian adolescent parasuicides (Pillay, 1989; Wood & Wassenaar, 1987).

Research on the characteristics of people who deliberately

poison or injure themselves began with the work of Stengel and Cook (1958) who studied attempted suicide in the London area. While there is much research available concerning the demographic characteristics of those who attempt suicide, there is less understanding of the psychological reasons for why this behaviour occurs. Of all age groups the rates of suicide attempts among the youth have increased the most dramatically over the past 30 years.

Non-fatal suicide behaviour among adolescents is difficult to measure epidemiologically. Most youth suicide attempts, about 7 of every 8, are of such low lethality as to not require medical intervention. Thus many "attempts" are never reported but for surveyed self-identifications of adolescents. "In 1987 there were 4 924 officially recorded suicides in young people between the ages of 15 and 24 (National Centre for Health Statistics, 1989), translating into a rate of 12.9 per 100 000. This rate was only slightly lower than the peak rate for this century for this age group, 13,3 per 100 000 in 1977. When separately examined, however, rates for 15 to 19 years have continued to rise since the late 1970's, whereas those in the 20 to 24 year old group have been on a downward trend" (cited in Bongar, 1992, p.85). Some of the reasons listed for the increase in suicide rates among young people include: problems of unemployment and difficulties in the workplace, rise in cost of education, paucity of jobs when education is completed and punitive or inadequate child rearing practices. Furthermore a breakdown in the nuclear family unit has undermined the social support systems that once existed in many western cultures and acted as a buffer for developmental stresses among the youth.

Suicidal behaviour, both fatal and nonfatal, remains largely under-reported within the community. Many 'accidental' deaths appear to be the results of suicidal behaviour. This viewpoint has been repeatedly emphasised (Curran, 1987; Eisenberg,1984; Hawton, 1986). Indications are that official figures do not reflect the full scope of the problem. They do not include most drug overdoses, wilful accidents nor all the suicides that are subtly classified as accidents (Pfeffer, 1986). Hence, statistical reports on suicide and parasuicide tend to be incomplete and misleading with the inevitable result that the phenomenon is underestimated in extent. Unfortunately, this phenomenon is prevalent in South

Africa as well and has been documented in several studies of parasuicide (Peizer & Oberholzer, 1987; Schlebusch, 1985).

Clearly self-harm behaviours have become a significant public health problem and are receiving increasing attention from social scientists and health practitioners all over the world. This growing interest relates firstly to the fact that self-harm behaviours have escalated over the years, and secondly the knowledge that preventative measures are long overdue. Preventative measures cannot, however, be implemented without a thorough understanding of the problem and its antecedents (Pillay, 1989).

1.2. SUICIDOLOGY

Suicidology is defined as the scientific study of suicidal phenomena (Shneidman, 1985). It includes a wide grouping of self-destructive (self-harm) behaviours including completed suicide, attempted suicide and parasuicide. Kreitman (1977) notes that a clear terminology is the minimum requirement for an adequate theory. While many authors have attempted to define suicidal behaviour, this effort has not had the effect of clarifying the basic issue. Although suicide is believed to be a very self-evident term (Shneidman, 1985), a variety of definitions have been offered over the years. Stengel (1952) was one of the first to emphasise the many differences between persons who kill themselves and those who harm themselves sublethally. He considered, however, that demonstrably conscious intent of self-destruction was an essential component in both groups implying that those who survive are in fact failed suicides. Hence he suggested the terms 'suicide' and 'attempted suicide' and elaborated this approach to the problem in a classic monograph (Stengel & Cook, 1958). Since then it has become clear that such rigorous case definition of non-fatal self-harm poses major difficulties because many non-fatal episodes do not appear to be related at the time to conscious ideas of suicide. The definition of suicide is complicated, but there is even more confusion when the adjective 'suicidal' is used. The word 'suicidal' is used to cover a number of categories of behaviour. It may convey the idea that an individual has committed suicide, attempted suicide, threatened suicide, exhibited depressive behaviour, (with or without suicidal ideation), or manifested generally self-destructive or inimical patterns. There is also confusion with respect to

the temporal aspects of suicidal acts. One sees the term 'suicidal' used to convey the information that an individual was self-destructive, is currently self-destructive, or will be so. Most diagnoses in the field are post hoc definitions, labelling an individual as suicidal only after he has attempted or committed suicide. Serious confusion relating to suicidal phenomena may occur if the individual's intentions in relation to his own cessation are not considered. Suicide may be defined for medical, legal or administrative purposes. Shneidman (1985) asserts that it may make more sense eventually to eschew the category of suicide entirely, and instead to classify all deaths in terms of the individual's role in his own demise: intentioned, subintentioned or unintentioned. Shneidman's classification of suicidal behaviour refers to four types:
(a) completed suicide
(b) attempted suicide
(c) parasuicide and
(d) deliberate self-harm behaviours (D.S.H.).

Completed suicide is "the human act of self-inflicted, self-intentioned cessation" (Shneidman, 1981, cited in Boya, 1990, p.5). Various components are considered necessary in satisfying the definition of suicide, viz., it should incorporate a conceptualisation of death i.e. an individual's unconscious desire to die and his/her action in accomplishing that goal (Shneidman, 1981). The issue of intentionality to kill oneself is the overriding feature of suicide and one of the most powerful differentiating predictor variables in establishing the phenomena. "The phenomenon is enormously complicated, encompassing a wide variety of dysphoria, disturbance and self-abnegation, resignation, despair, hopelessness and many other complex emotions, thoughts and behaviours" (Shneidman,1981, cited in Bongar, 1992, p.xv). In sum, suicide is "a conscious act of self-induced annihilation, best understood as a multidimensional malaise in a needful individual who defines an issue for which suicide is perceived as the best solution" (Shneidman, 1985, cited in Bongar, 1992, p.3).

Attempted suicide is defined as "the fortuitous survival of an intended suicide or a situation in which a person performs an actual or seemingly life threatening deed with the purpose of jeopardising his/her life or giving the appearance of such an intent, but which does not result in

death" (Pokorny, 1974, cited in Boya, 1990, p.17). Many authors have struggled with the difficulty in defining attempted suicide. "Kreitman (1977) argued that many individuals who appear to be attempting suicide are not really trying to kill themselves, and therefore the term is incorrectly applied. Shneidman (1976) suggests a similar viewpoint, proposing that the attempted suicide is actually a non-verbal social communication used in an attempt to obtain supportive response from the environment" (cited in Boya, 1990, p.18). Kessel (1965) argued that for the majority of patients, the term 'attempted suicide' was inaccurately applied. In substantiating this claim he indicated that most patients understood acts of self-harm, felt relatively safe and believed they would survive. Kessel (1965) added that these were not attempts at suicide but rather episodes of 'deliberate self-poisoning' and 'deliberate self-injury.' Clearly the aim of 'attempted suicide' whether by self-injury or poisoning is that of changing life circumstances or the attitudes of a significant other, rather than intention to kill oneself (Shneidman, 1981). However, it is also likely that many individuals resort to suicidal behaviour in a state of desperation without suicidal intent or the intention of influencing environmental circumstances.

Precisely because the term 'attempted suicide' pointed to limitations in definition, the term 'parasuicide' was introduced. The term sought to represent a behavioural analogue of suicide without in any way implying an orientation towards death in its definition. Parasuicide is defined as "a self-inflicted suicide-like act which does not have death as its intention" (Shneidman, 1985, cited in Boya, 1990, p.19). Kreitman and Schreiber (1979) provided a specific definition: "someone who deliberately initiates an act of non-fatal self-injury or who ingests a dose of substance in excess of any prescribed or recognised amount" (cited in Boya, 1990, p.18). The term by definition does not imply suicidal intent, and most studies of young Indians in South Africa have noted that self-harm behaviours are motivated by factors other than suicidal intent. These include temporarily escaping high levels of tension (Pillay & Pillay, 1987) and communicating a need for individuation and change in family functioning (Wassenaar, 1987; Wood and Wassenaar, 1989).

Morgan (1979) proposed the term 'nonfatal deliberate self-harm' (D.S.H.) which describes a form of behaviour which besides including failed suicides embraces many episodes in which self-destruction was clearly not intended. Deliberate self-harm is seen as a distinctive class of self-destructive behaviour characterized by direct self-harm behaviour, low lethality and recurrent pattern (Pattisohn & Kahn, 1983). Additional terms appearing in the literature include 'deliberate self-poisoning' (Clarke, 1958; Kerfoot,1988; Kessel, 1965) and 'deliberate self-injury' (Bancroft, Skrimshire, Reynold, Sunkin & Smith, 1975; Walker, 1980). Deliberate self-poisoning is defined as the deliberate ingestion of more than the prescribed dose of medicinal substances or ingestion of substances not intended for human consumption, regardless of whether harm was intended (Bancroft et al., 1975). Deliberate self-injury is seen as "any intentional self-inflicted injury irrespective of the apparent purpose of the act" (Hawton, 1986, p.20). Current definitions of non-fatal acts of self-harm concentrate on their deliberate and conscious character, whether or not the wish to achieve self-destruction can be demonstrated.

Collectively problems of self-poisoning and self-injury may be referred to as non-fatal episodes of self-harm. While the Edinburgh school has suggested a single term 'parasuicide' is appropriate because it refers to a behavioural analogue of suicide without considering a psychological orientation towards death being in any way essential to the definition, Morgan et al., (1979) refers to deliberate self-harm. Both terms parasuicide and deliberate self-harm refer to non-fatal acts of deliberate self-suicide. Although psychologists commonly categorize suicidal behaviour into completed suicide, attempted suicide and suicidal ideation, suicidal actions are complex behaviours that can be described along a variety of dimensions. Beck & Lester (1976) found that attempted and completed suicides resemble each other in the planning of the suicidal action to ensure isolation and lack of intervention, but differ mostly in the communication aspects of the suicidal action. For the completed suicides, the decision appears to be between communicating and not communicating. For the attempted suicides, the decision appears to be between communicating before versus after the suicidal action. Although these data support the notion of attempted suicide as a cry for help, communication is not absent from the actions of all

completed suicides.

Shneidman (1985) documented a list of characteristics distinguishing suicide and parasuicide. These include the fact that (a) stressors relating to frustration of needs are common to both, although the nature and intensities are far more severe in suicide; (b) psychological pain is common in both suicide and parasuicide but is perceived as unendurable in suicide and potentially unendurable in parasuicide; (c) the purpose of suicide is to seek a solution to a weighty problem while the reduction of tension is sought in parasuicide; (d) the ultimate goal in suicide is the cessation of consciousness whereas in parasuicide it is the re-ordering of life space; (e) suicide is characterised by emotions of hopelessness and helplessness while rejection and loss predominate in parasuicide; (f) while in suicide the interpersonal act serves to communicate intention to die, in parasuicide it is a communication of unhappiness with a plea for nurturance and rescue.

1.3. THE SOCIAL MEANING OF ATTEMPTED SUICIDE

There is much confusion about the social meaning of attempted suicide. It should not be regarded as a 'disease'. Neither should those attempting suicide necessarily be regarded as being "ill" despite the fact that a small proportion of attempters do have a psychiatric disorder. There is a substantial body of literature linking suicidal behaviour with clinical characteristics such as diagnosis of an affective disorder, the presence of a personality disorder, as well as alcohol and/or substance abuse. However, individuals who harm themselves should not generally be considered to be psychiatrically ill just because of their behaviour. They should rather be seen as people made vulnerable by personal and social difficulties who remain responsible for their actions.

1.4. THE EPIDEMIOLOGY OF SUICIDE AND ADOLESCENT SUICIDE

Bongar (1992) notes that there are two approaches to studying suicide: the nomothetic (tabular, statistical, demographic, arithmetic) approach, and the idiographic (clinical, case study, personal document, historical, anamnestic) approach. Thus there are at least a dozen ways to address and understand suicidal phenomena. Wood (1987)

notes that epidemiological data provide researchers with an enhanced overall perspective of specific medical or psychological problems related to suicidal behaviour. Furthermore it contributes significantly to the identification of specific groups at risk. Distinctive trends have been noted in epidemiological data providing a basis for intervention and alleviation of the problem]

Suicide statistics have been documented by a large number of countries for many years, yet it is only recently that they have been critically evaluated in any systematic way. It remains unclear exactly how dependable they are and how much should be inferred from them. Douglas (1967) has contended that "not only are suicide statistics so inaccurate as to be useless but also that they are rendered invalid as a result of gross variation in the way suicide is defined" (cited in Morgan, 1979, p.20). There is a great deal of evidence to suggest that official estimates of suicide considerably underestimate its true incidence. The continuing debate concerning the value of official statistics on suicide means that they cannot be accepted at face value, and extrapolations from them should always be scrutinized in terms of their validity and reliability. However, most researchers collect the data, check the validity of the information and then make estimates regarding "true" rates. "A number of studies on the accuracy of suicide statistics appear in the literature. All agree that suicide is an underreported statistic. Examples of estimated "true" suicide rates range from 1.2 (Holding & Barraclough, 1975) through 1.4 - 1.8 (Warshauer & Monk, 1978) to 3.8 (McCarthy & Walsh, 1975) times the officially reported rate. A variety of explanations have been offered to account for underestimates: misreporting of suicides as accidents (Adelstein & Mardon, 1975), false reporting to protect the feelings of the survivors (Hawton, 1986), inadequate information, certifier bias, and lack of death certificates (Evans & Farberow, 1988)" (cited in Davis & Sandoval, 1991, p.4-5).

1.4.1. SUICIDE EPIDEMIOLOGY BY AGE

The suicide rate is defined as the number of suicides occurring in persons over the age of 15 years during one year. For 1992, the USA overall suicide rate was 12.2 per 100 000. Suicide is the eighth leading cause of death for

the general population, and is the third leading cause of death in people aged 15 to 24 in the USA. It has maintained a steady ranking of second or third among deaths for persons of younger age groups for several decades. Research on suicide trends show that suicide rates increase as a function of age. While completed suicide is extremely rare in children under the age of 12 years, it becomes more common after puberty with its incidence increasing in each of the adolescent years, and reaches a peak among the youth at age 23 years. However, the highest rates of suicide are among elderly men (Shaffer et al., 1988). Suicide rates historically and currently are highest among those over the age of 65 years (Berman & Jobes, 1991; Blazer, 1991; Blumenthal & Kupfer, 1990; Diekstra, 1987) and according to McIntosh (1992) markedly higher rates for future older adults are predictable." (cited in Naidoo, 1993, p.6). Although secular changes over the past 30 years have resulted in a tripling of the rate of suicide among young adults, 80 year olds are still twice as likely to commit suicide as 20 year olds (Vaillant & Blumenthal, 1990, cited in Blumenthal & Kupfer, 1990). Vaillant and Blumenthal (1990) explain that suicide usually results from the "unlikely convergence of multiple predisposing and immediate risk factors, and that these risk factors must come together in the absence of multiple protective factors. People may move in and out of suicidal crises at different points over their lifetime as a result of disruptions in the homeostasis between these risk and protective factors. Little knowledge exists to clarify whether suicide is the same phenomenon in childhood as it is in old age or whether it has a different meaning and set of risk factors across the life span. While there is a paucity of prospective, longitudinal research on this public health problem, Blumenthal and Kupfer (1990) strongly suggest that suicidal behaviour throughout the life-cycle is on a continuum: similar risk factors appear to operate across the various stages of the life span, but their contributory weights differ (Vaillant & Blumenthal, 1990, cited in Blumenthal & Kupfer, 1990). Over the past four decades there has been a burgeoning of suicide among persons below 25 years of age. Although the problem occurs worldwide, it is especially acute in developed countries such as the USA. In 1987 there were 4 924 officially recorded suicides for young people between the ages of 15 and 24 years (National Centre for Health Statistics, 1989). This translates into a rate of 12.9 per 100 000 which is

only slightly lower than the peak rate this century for this age group, viz., 13.3 per 100 00 in 1977. Lester (1988) investigated rates among 15 to 24 year olds in countries with a minimum of 100 suicides annually, and found increases in 23 of 29 countries. Some increases, however, were limited to only one gender. Diekstra (1989) reported increases for the period 1970 to 1985 in 9 of 13 countries examined (Bongar, 1992).

1.4.2. SUICIDE AND GENDER

Gender is another highly significant suicidal variable. Males complete suicide at five times the rate of females in both national and international studies (Berman & Jobes, 1991; Hawton, 1986; Kreitman, 1977; Peck, Farberow & Litman, 1985; Pillay, 1984; Pillay & Pillay, 1987). The male to female ratio ranged from a high of 5:1 in 1987, specifically for the age group 15-24 years for the general population in the USA (National Centre for Health Statistics, 1992, cited in Clarke & Fawcett, 1992, cited in Bongar, 1992) to a low of 1.5:1 (Bhamjee, 1984) in a South African study among the Indian community. Padres (1985) noted that although girls attempt suicide much more frequently than boys, boys complete their attempts four times as often (Padres, 1985, cited in Peck et al., p.vi). Other authors put the ratio in general at three to one in both directions (i.e. three times as many young males complete suicides as females, while the latter attempt suicide in the order of three times more frequently than males (Frederick, 1985, in Peck et al., 1985). At the extreme, the black male to female ratio for the twenty to twenty four year old group in 1966 was 6:6.1. The fluctuation of suicide rates over time in males is also greater when compared to females. When the interaction of age and gender is examined, it is interesting to note that the ratio of male to female suicide for persons 15 to 19 years old has gone from a low point of 0.7:1 in 1911 (males lower than females) to a reversed ratio of 4.7:1 (males in excess) in 1980. However, females make three times as many attempts as males within this age group.

Many studies have attempted to explain the gender discrepancy in the incidence of suicide and attempted suicide. Explanations include that for females there is less societal acceptance of aggressive and other expressive

behaviours that could facilitate the sublimation of angry feelings. In males these forms of expression are permitted and even encouraged (Curran, 1987). Females are socially conditioned to believe that displaying their anger is unfeminine, consequently, they are more likely to direct their anger inwardly. Pillay (1989) notes that aggressive behaviour in young boys is usually seen as a normal stage in development whereas such responses are stifled or negatively reinforced in girls. Although this may seem like an adequate explanation for the higher rate of females attempting suicide, it offers no interpretation for the higher incidence of males in the completed suicide category.

1.4.3. SUICIDE EPIDEMIOLOGY BY RACE

In the USA whites have the highest suicide rates for all age groups as compared to all other race groups (Berman & Jobes, 1991; Peck, Farberow & Litman, 1985). Thus suicide has been viewed predominantly as a white male problem. Although this trend remains, a drastic increase in the rate of suicide among the black population challenges this pattern (Berman & Jobes, 1991). In the USA, native American and black (male) suicide rates are the only ones that peak during the young adult years, and almost all of the increase in the overall black suicide rate has been due to the increase among black males aged 20 to 24 years (Gibbs, 1988, cited in Davis and Sandoval, 1991).

According to many South African studies (Bhamjee, 1984; Bhana, 1981; Edwards, Cheetham, Naidoo & Griffiths, 1981; Kader, 1986) there has been a distressing increase in the incidence of suicidal behaviour among the Indian population. Furthermore this research (Pillay, 1984; Pillay & Pillay, 1987; Wassenaar, 1987; Wood & Wassenaar, 1989; Edwards, Cheeetham, Naidoo & Griffiths, 1981; Wood, 1987) shows South African Indians to be an acculturating population. The transition fostered by the influence of Western capitalist values and systems resulting in a shift from the extended family system to the nuclear family has been associated with the high rate of suicidal behaviour among the adolescent Indian population. Part of the acculturation process is manifested in the shift from collectivism to individualism especially evident in the younger population. This confrontation of opposing ideologies combined with many of the characteristics of the Indian family may or may not have

resulted in a particular interactional and communicational style which motivates suicidal behaviour. Wood and Wassenaar's (1987) research found the families of parasuicidal patients showed greater pathology along the following dimensions: disturbed role functioning (Diekstra & Hawton, 1987); general functioning; problematic affective involvement and excessive behavioural control. This phenomenon holds for young persons as well as those in the adult age ranges, for males as well as females.

1.5. EPIDEMIOLOGY OF NON-FATAL SUICIDE BEHAVIOUR

National data on attempted suicide rates in the USA is not available, thus suicidologists conduct studies using a variety of data sources to estimate the rates. It is estimated that about 2.9% of the general adult population have made a suicide attempt. Suicide attempt rates are three times higher for women than men and are higher for those aged 25-44 years and lower after age 45 years when compared to persons in the 18 to 24 year age range. The rates are four times higher for persons separated or divorced than persons in other marital status categories, and show little difference by race or ethnicity (Moscicki et al., 1989, cited in Bongar, 1992).

Nonfatal suicidal behaviour among adolescents is difficult to assess epidemiologically. Consensus is that the rates of attempted suicide have easily paralleled if not exceeded the rise in completed suicide rates for adolescents. Most youth suicide attempts, about 7 of every 8, are of such low lethality as to not require medical intervention (Smith & Crawford, 1986). Thus many attempts are never reported but for surveyed self-identifications of adolescents. The data used for these estimates are collected from 'normal' populations (junior, high schools and colleges), clinical populations and both outpatient (mental health and psychiatric clinics and hospital emergency rooms) and inpatient (usually psychiatric) settings. In the USA survey reports of prior suicide attempts range from a low of 8.4% of 313 midwestern high school students (Smith & Crawford, 1986) to 9% of 380 high school students from New York (Harkavy-Friedman, Asnis, Boeck, & DiFiore, 1987) and 13% of 120 San Matel California high school students (Ross, 1985) to a high of 20% of students in a small northeastern community. However, Rubenstein, Heeren, Houseman, Rubin &

Stechler (1989) found that suicidal behaviour was as common among males as among females. They suggest the reason for their different findings may be due to the fact that "attempt" samples are often drawn from studies of hospital or emergency room populations which are used more often by females than males. In fact, however, two studies that drew from "normal" populations in the USA - those of Harkavy-Friedman, Asnis, Boeck & DiFiore (1987), and Smith & Crawford (1986) - found male to female ratios of 3:1 and 5.6:1 respectively. Perhaps the different finding of Rubenstein and others was attributable to their added question, concerning "hurting oneself" which is perhaps less threatening to males (Davis & Sandoval, 1991).

Most attempts involve drug ingestions taken at home often in front of others. Although clearly not of life threatening proportions, the significance of this behaviour should not be discounted by cognitions. Once an attempt has been made irrespective of lethality, risk for future serious attempts and completions increases significantly. Various studies (Bhamjee, 1984; Wassenaar, 1987, and Pillay & Wassenaar, 1991) in South Africa have placed the male to female ratio in the region of 1.86:1.

1.6. SOUTH AFRICAN RESEARCH INTO SUICIDAL BEHAVIOUR

South African research into suicidal behaviour dates back almost 40 years to a study in the Cape Town area (Walton, 1951, cited in Boya, 1990). Meer (1964) conducted one of the earliest studies into suicide and found that in comparison to other cultural groups, South African Indians revealed the highest rate of suicide. To date, most research into suicidal behaviour, was carried out during the 1980's and has focused on parasuicide rather than suicide. There remains, however, a paucity of studies in this area. According to Minaar, Schlebusch and Levine (1980) persons in the age group 20 to 30 years are at greatest risk for suicidal behaviour. The incidence of suicidal behaviour is also highest among married persons and can be attributed to poor marital communication.

Parasuicide among adolescents in South Africa has received a fair amount of attention from clinicians and researchers over the years. Issues such as family functioning (Wood & Wassenaar, 1989), personality factors (Bhana, 1982) and

management (Wassenaar, 1987) have been examined (cited in Pillay & Wassenaar, 1991). Most studies in the 1980's have attempted to account for the increase in parasuicide among Indian adolescents. Focusing on an Indian sample, Pillay & Pillay (1987) identified single persons between 16 and 25 years who have a background of authoritarian parenting, to be at greatest risk. Wassenaar (1987) focused on the family dynamics of Indian adolescent parasuicides. It was suggested that parasuicide in adolescents appears to be a gesture communicating distress related to a developmental difficulty. Families of these individuals were unable to accommodate the adolescent's drive toward individuation. Wood & Wassenaar (1989) noted in particular disturbed role functioning, rigid problem-solving behaviour and lack of open communication. Such findings were later confirmed by Pillay's (1989) study of the family dynamics of Indian adolescent parasuicides.

1.7. SUICIDAL BEHAVIOUR AMONG ADOLESCENTS.

Adolescence is typically a time of challenge, change and adjustment, when the developing youngster begins to move away from familiar nurturing models so as to experiment with a variety of roles and identities. The result is often a behavioural configuration which is exciting yet frustrating. While on the one hand adolescence is often marked by a continual striving for independence and an apparent rejection of previous dependency patterns, on the other hand the 'experimenting' youngster relies heavily upon the support of home and family when the developmental tasks being faced become intense and overwhelming. Clearly the response of parents is crucial to the subsequent adjustment that the adolescent makes. Adolescence is also a developmental period which carries with it much anxiety. In order that a child may make a satisfactory adjustment, his/her often irrational and contradictory behaviour needs to meet with sympathy and sensitivity in parents. The parent's own level of adjustment is crucial here, and their own personal recollections and experiences of adolescence take on a special meaning.

Adolescent suicidal behaviour is not a modern phenomenon, however, the frequency with which it occurs has rendered it a relatively unremarkable phenomenon in the past 20 years and one which has come to be regarded with concern as well

as some irritation by professionals. Diekstra (1987) emphasises that the recent rise in both suicide and attempted suicide among adolescents is an internationally reported phenomenon. Evidence from psychological autopsies indicate that a substantial portion of adolescents (Shaffer, 1974; Shaffi, Carrigan, Whitinghill & Derrick, 1985) who completed suicide had made a prior attempt. Conversely, follow-up studies show that a significant number of attempters go on to complete suicide (Goldacre, Hawton, 1985; Motto, 1984; Otto, 1972) making suicide the second leading cause of death among adolescents in the USA (Davis & Sandoval, 1991). Completed suicide is affected by a variety of factors beyond the desire to die. An adolescent intent on committing suicide may be rescued due to unusual circumstances (e.g. parents come home unexpectedly) or because of limited accessibility to more lethal methods. Conversely, even when the adolescent does not desire to die, suicidal behaviour can result in accidental death (McIntire & Angle, 1970; 1971). Many adolescent suicides can be described as a "pharmacologic roulette" (McIntire, Angle & Schlicht, 1980): risk-taking behaviour with a high probability of death by overdose. The overlap between suicide attempts and completion is a complex issue, partly related to chance factors (Spirito, Brown, Overholser & Fritz, 1989). Changes in incidence and prevalence in recent decades have increased the concern of clinicians, educators and the public to a problem now requiring social response. Suicide is the third leading cause of death among 15 to 19 year olds in the USA (Berman & Jobes, 1991; Blumenthal & Kupfer, 1990; Clark & Fawcett, 1992; Garland & Zigler, 1993; McKenry, Tishler & Kelley, 1982 cited in Naidoo, 1993). It is the second leading cause of death among adolescents 15-24 years and the rate among this group now equals that of the general population (Rosenberg, Smith, Davidson & Conn, 1987, cited in Spirito et al., 1989; Fremouw, Callahan & Kashden, 1993). Non-fatal suicidal behaviour among adolescents is difficult to measure epidemiologically. Most youth suicide attempts - about seven of every eight - are of such low lethality as to not require medical intervention (Smith & Crawford, 1986, in Bongar, 1992). Thus many attempts are never reported, and only heard about in surveyed self-identifications of adolescents (Bongar, 1992).

During adolescence the modal suicide attempter and modal completer can be identified as different. Great caution is

needed in drawing inferences from the study of one group and applying it to the other. However, much knowledge about adolescent suicide comes from studies of relatively non-lethal attempters (Berman & Cohen-Sandler, 1982; Maris, 1981), groups composed largely of female drug ingestors (over 80%) who comply with recommended treatment regimens. It becomes useful to distinguish attributes associated with different suicidal behaviours in order to arrive at useful commonalities for the assessment of risk. A number of studies have investigated the medical lethality of a suicide attempt (Goldacre & Hawton, 1985; Smith, Conroy & Ehler,1984). Brent (1987) found that of those suicide attempting adolescents who had made a medically lethal attempt, they were most similar to those who completed suicide i.e. they were predominantly male, most often were diagnosed with an affective disorder, demonstrated high suicidal intent and had a history of drug abuse.

The method of suicide attempt has been investigated as an important variable among adult attempters. Some researchers (Lester & Beck, 1980) argue that choice of method is significant in terms of how seriouly suicidal a person is. While some authors agree (Smith, Conroy & Ehler, 1984) and have developed a lethality of suicide attempt rating scale, others such as Peck (1984) argue that this theory does not hold for completers and suggests that perseverance with a particular method is more significant than the method itself. Studies conducted in the USA show that firearms and explosives play a major role in youth suicide attempts. The second most common method is gender related - males most often choose some mode of asphyxiation while females favour poisons or medication (Davis & Sandoval, 1991). A number of studies consistently demonstrate that 75% to 90% of all adolescent suicide attempts are by drug overdose (Spirito, Stark, Fristad, Hart & Owens-Stively, 1987; Hawton, 1986; Hawton & Goldacre, 1982). Overdoses are nearly equally divided between over the counter and prescription drugs (Spirito et al., 1987), a difference that may be useful to examine in future research. It may be that impulsive suicide attempters are more likely to use over the counter drugs, or whatever drugs are readily available, whereas the more hopeless and dysphoric attempters are more likely to use a combination of drugs (Brent, 1987). Although most overdoses are not fatal, it does not mean that adolescents who take overdoses do not want to die. Limited access to different

methods may account for the use of nonlethal drug overdoses by adolescents. Morgan, Burns-Cox, Pocock & Pottle (1975) have documented that adolescents most commonly use over the counter drugs in suicide attempts whereas more dangerous prescription drugs are used by adults. The finding that females attempt suicide by overdose may not be a reflection of less lethal intentionality, but rather a sex difference in suicide attempt method. Similarly, not all persons who use a very lethal method want to die. One study (Peterson, Peterson, O'Shanick & Swann, 1985) has shown that of a group of 30 adults with self-inflicted gunshot wounds, not all had intended to die. Rather, many of these attempters had made an impulsive attempt with a method that for them was readily available.

1.8. PRECIPITANTS OF SUICIDAL BEHAVIOUR IN ADOLESCENTS

Precipitants of suicide attempts in adolescents have also been of interest to several investigators. Tishler, McKenry & Morgan (1981) reported the following precipitants in a study of 108 adolescent suicide attempters seen in an emergency room: parental problem (50%), girlfriend/boyfriend problems (30%) school problems (30%) sibling problems (16%) and peer problems (15%). Girlfriend/boyfriend problems, family problems and school problems were the three most common precipitants reported by Otto (1972). In a younger sample (aged 5 to 14 years), family problems (45%) and school problems (17%) were most common (Kienhorst, Wolters, Diekstra & Otte, 1987).

1.8.1. PSYCHOLOGICAL FACTORS ASSOCIATED WITH ADOLESCENT SUICIDAL BEHAVIOUR

Reports of completed and attempted suicide reflect three disorders as often presenting co-morbidly with the frequency and lethality of attempts - conduct disorders, substance abuse disorders and affective disorders (Frances & Blumenthal, 1989, cited in Bongar, 1992). Although little research has been published assessing the psychological characteristics of adolescent completers, studies contrasting adolescent completers with nonsuicidal controls and nonfatal attempters yield greater frequencies of conduct disorders and substance use among largely male groups of adolescent completers. Nonfatal attempters, however, present with a range of associated pathologies perhaps the most

frequent of which are affective disorders. The three primary emotional states associated with both adolescent completers and non-fatal attempters include depressive illness, hopelessness and anger. While these factors have been found in many but not all attempters, their presence may predict psychiatric admission, future attempts, or be associated with general behavioural and affective arousal (Spirito et al., 1989). Of adolescents admitted to a medical unit following a suicide attempt, the most common diagnosis was adjustment reaction with depressed mood, with only a few of these adolescents meeting the criteria for major depressive disorder (Schreiber & Johnson, 1986). Thus depression appears to be characteristic of a substantial proportion but not all adolescent suicide attempters. Many studies support this evidence (Brent et al., 1988; Rich & Fowler, 1986; Shaffer & Gould, 1987; Shafii et al., 1985). The relationship between depression and suicidality in adolescence is complex (Carlson & Cantwell, 1982). Most depressed youths are not suicidal and the ratio of depressed to depressed suicidal adolescents is approximately 660:1 (Shaffer & Bacon, 1989).

Conduct disorder is commonly found among adolescent suicide attempters (Appner, Bleich, Plutnik, Mendelson & Tiano, 1988; Pluntchik, Von Praag & Conte, 1980). It describes behaviours of dyscontrol and difficulites with authorities and systems of external control (Bongar, 1992). Central to the diagnosis may be difficulties in the control of aggression. Plutchik, Van Praag & Conte (1989) proposed that suicide risk is heightened when aggressive impulses are triggered and not attenuated by opposing forces. Such a relationship may underlie reported frequencies of diagnosed borderline personality disorder among adolescents making more serious suicide attempts (Friedman, Clark & Corn, 1982). Common to these diagnoses are symptoms of affect disregulation, intense rage and impulsive behaviour, personality traits commonly reported in studies of adolescent parasuicides (Berman & Jobes, 1991).

Substance abuse is also commonly found among adolescent suicide attempters (Rich et al., 1986; Shaffer & Gould., 1987; Shafii et al., 1985; Garfinkel et al., 1982; Riggs et al.,1986; Bettes et al., 1986; Robbins & Alessi, 1985). Although substance abuse is found with greater frequency among completers and non-suicidal attempters, suicide

attempts occur three times as frequently among adolescent substance users as among controls, with the wish to die increasing dramatically after the onset of substance use (Berman & Schwartz, 1990). Brent, Perper & Allman (1988) note that substance use at the time of suicidal behaviour is strongly related to the lethality of the method used. Berman & Schwartz (1990) found that adolescent substance users who have attempted suicide significantly more often than controls, had an early childhood characterised by loneliness. This finding is consistent with that of other studies reporting suicidal adolescents to be lonely and socially withdrawn (Petzel & Cline, 1978; Rubinstein, Heeren, Houseman, Rubin & Stechler, 1989).

Hopelessness is a cognitive-emotional variable often found significantly more among adolescent and adult parasuicides (Spirito, Williams, Stark & Hart, 1988). Studies of hopelessness in adolescence have for the most part used psychiatric samples. Two recent studies with larger samples demonstrated that hospitalised adolescent suicide attempters had significantly higher levels of hopelessness than nonsuicidal psychiatric and normal control groups (Spirito, Williams, Stark & Hart, 1988; Topol & Reznikoff, 1982). Marks and Haller (1977) using a large outpatient sample found that hopelessness was more prevalent in female suicide attempters than male suicide attempters, male nonsuicidal adolescents or female nonsuicidal adolescents. Although depression and hopelessness are closely related constructs, hopelessness is more strongly related to suicidal behaviour. While it is consistently associated with suicide attempts across ages and in a variety of evaluation settings, however, during adolescence the relation between suicidality and hopelessness has not been universally upheld (Rotheram-Borus, Trautman, 1988).

Anger is another variable that has been prominently discussed in connection with adolescent suicide attempts (Curran, 1987; Khan, 1987). Although relatively little empirical data has been collected about anger in suicidal adolescents, some adolescent attempters have been found to report intense anger prior to the attempt (Wither & Kaplan, 1987) and to have exhibited a wide range of aggressive symptoms (Garfinkel et al., 1982). When investigated systematically, it appears that anger and aggressive behaviour are found in a substantial proportion of

adolescent suicide attempters. Anger and irritability may at times be a component of depressive disorders. Such presentation may be less indicative of character pathology and more a function of strong affective arousal which culminates in a suicide attempt. Since many adolescent suicide attempters are diagnosed as conduct disordered, anger as a component of oppositional behaviour seems evident in many childhood and adolescent suicide attempts (Spirito et al., 1989).

It is clear that to speak of the typical suicidal adolescent is a misnomer. At different times, both completers and attempters may show signs of anxiety, perfectionism and distress particularly during times of transition and dislocation. While Shaffer et al (1988) found schizophrenia and learning disabilities to be characteristic of adolescent completers, Hoberman & Garfinkel (1988) identified the most common behavioural descriptors of adolescent completers as withdrawn, lonely and supersensitive.

The influence of the family, especially the parental system is one of the most studied of variables in studies of adolescent suicides. The family exerts a potent influence on the development of the individual, particularly the development of emotional responses, ideas, attitudes and values. It is obvious that the family has a role to play in the development of suicidal behaviour in the adolescent. Compared to normal adolescents, suicidal adolescents suffer greater family stress particularly due to changes and threatened changes in the parental system such as loss, death, separation and divorce and a consequent lack of support. In addition these families are characterised by greater parental dysfunction, suicidality and psychopathology, the latter ranging from generalised psychiatric problems to depression and substance abuse including aggression, abuse, violence and neglect of children (Bongar, 1992). Pillay (1989) focused on a South African sample and found the families of adolescent Indian parasuicides to have poor adaptability, low cohesiveness and poor family satisfaction. Exposure to the suicidal behaviour of another person in the social network or family may be an accelerating factor rather than a causative factor for those already predisposed to be at risk - ideators, attempters and completers (Garfinkel et al., 1982; Harkavy-Friedman et al., 1987; Shafii et al., 1985; Smith & Crawford, 1986), however,

a study reviewing the literature showed that only 6-8% of adolescent attempters had a family history of suicide (Wetzel, 1982). Families of adolescent parasuicides are characterised by extremes of parental expectations. A pattern of hostility in the child and low lethality of intent was associated with low parental control and low expectations. A pattern of dominant depression was associated with high control and high expectations; pervasiveness of family breakdown; an alcoholic parent; a relative who had attempted suicide; broken homes and marked residential mobility and changes in school, social isolation as an adolescent; malfunctioning sytem of communication; loss or separation from one or both parents in varying degrees at crucial periods of development. Psychopathology and disordered personality characteristics observed in suicidal adolescents can be explained through any of a variety of mechanisms from social learning or modelling to genetics and biochemistry. Increased levels of stressare one byproduct of the disturbed familial and social contexts in the presuicidal lives of adolescents (Cohen-Sandler, Berman & King, 1982; Rubenstein et al., 1989). Paykel (1982) however concluded that there was a dearth of studies employing proper methodology and controlled comparisons of recent life events of suicidal as opposed to non-suicidal youths. Other variables such as psychopathology may mediate between stress and suicidality. Stressful life events cannot therefore be taken as a standard prerequisite of suicidality. However, where effective coping strategies and alternative problem solving ability fails to exist for the adolescent in a context of stressful life events the occurrence of suicidal behaviour increases.

Deficits in the problem-solving skills of suicidal adolescents have been well-documented (Berman & Jobes, 1991). These deficits distort perceptions, narrow the range of alternatives and greatly increase the sense of hopelessness and the risk of impulsive behaviour. Under such conditions the risk of suicidal behaviour greatly increases. Moreover, once the suicidal behaviour occurs the risk for more lethal consequences increases as well (Bongar, 1992). Cognitive strategies such as problem solving skills are essential to arrive at rationally derived alternatives to engage cognitive rehearsal, to think hierarchically versus dichotomously, to assess self and to tolerate ambivalence. Problem-solving skills and coping strategies might be a

significant variable in understanding why adolescents commit or attempt suicide. This aspect will be dealt with in depth in chapter three.

Little mention has been made of the protective factors - those personality characteristics that increase resilience in adaptive capacity in adolescents. Garmezy (1985) identifies such protective factors as making some youths more adaptive than others even though in similar situations of stress and pain. They include self-esteem, feelings of autonomy and self-control, the presence of external supports and resources, family cohesion and warmth and the absence of familial discord and neglect. Rubenstein et al., (1989) reported on a study of three hundred high school students and was able to document decreasing suicidality among those adolescents who perceived their families to be more cohesive and adaptable and saw themselves as a valued member of a peer group.

The purpose of this study is to investigate the extent to which attributional style and coping strategies effect levels of suicide intent among female adolescent parasuicides. it is hypothesised that choice of coping strategies strongly influences the adolescent's ability to solve difficulties and therefore effects the decision whether or not to attempt suicide. If psychologists are to better understand the choice of coping strategies employed by adolescent parasuicides, a clearer understanding of those cognitive factors which impinge on coping strategies is needed. Attributional style is thought to be one such factor. Previous research has speculated that the way in which people explain the occurrence of an event predicts the type of strategy they choose to deal with it (Peterson & Seligman, 1987). For this reason the following chapter focuses on attributional style. It examines research investigating the link between depression and attributional style (since suicide attempters are often depressed), as well as the research available on attributionasl style and coping. The results of this research may contribute to the development of preventative programmes. The purpose of research for preventative work is to help health workers become more sensitive to, aware of, and competent in identifying and screening youth in need of suicide evaluation and/or treatment.

CHAPTER TWO: ATTRIBUTION THEORY.

2.1. Introduction to Attribution Theory.

A popular definition of attribution is the perception of causes of behaviour (Jones, Kanouse, Valins & Weiner, 1972 in Harvey, Orbuch & Weber, 1992). The study of how people understand the causes of behaviour has a long and distinguished philosophical tradition. However, questions raised by philosophers in relation to causation are purely logical and do not necessarily parallel the beliefs of the lay person. Furthermore, they do not deal with why such beliefs are important and how they are arrived at. It is with such questions that psychologists have been concerned. Both the approach and method of attribution theory has developed out of the area of social psychology known as person perception. It is concerned with how and why ordinary people explain events and behaviour. The basic data for any attribution are the actions of persons. People find themselves asking: How are our actions to be interpreted and understood? How does the social environment affect the perceptions of one's own behaviour? What are the underlying regularities in another's personality? Thus the "primary focus in attribution theory is on the processes by which the "person on the street" forms an understanding either of observed or of personal events. This is the "naive psychology" that Heider (1958) presented and that has had an enduring impact over the last three decades (Harvey, Orbuch & Weber, 1992).

There has been much debate over what constitutes the body of attribution theory and whether people do in fact search for causal explanations. The major expositions of attribution theory (Heider, 1958; Jones & Davis, 1965; Kelley, 1967) do not constitute a theory in the formal sense, but rather a conceptual framework. Attribution theory is not a monolithic theory and certainly not a 'hegemony'. However, the central theories do deal with essentially common questions and if not set out in terms of formal logic, they have at least been presented in the form of systematic hypotheses, the exploration of which has proved remarkably fruitful for experimental social psychology (Hewstone, 1983).

Hewstone (1989) argues that the greatest strength of the attributional approach is its theoretical breadth and

sophistication. It is also systematic in its pursuit of causal relations. A limitation of the attributional approach is that too little research has been done with different populations in terms of age, socio-economic and cultural factors (Harvey et al., 1992). Attribution theory has laid the groundwork for the development of such related theories as the Reformulated Learned Helplessness theory and Attributional Style Questionnaire, both of which will be examined in this chapter.

2.2. COGNITIVE THEORIES OF DEPRESSION.

The two prominent cognitive theories of depression that have influenced the development of the concept of attributional style are Beck's Cognitive Theory (Beck, 1967; Beck, Rush, Shaw & Emery, 1979), and the Hopelessness Theory of Depression (Abramson, Metalsky and Alloy,1989; Abramson, Seligman and Teasdale,1978). Both theories have been conceptualised as cognitive diathesis-stress models. In each, individuals with certain negative cognitive patterns are hypothesised to be vulnerable to developing depression when confronted with negative life stress.

2.2.1. BECK'S COGNITIVE THEORY OF DEPRESSION.

Beck's (1967; 1972) cognitive theory of depression proposed that dysfunctional schemas act as vulnerability factors for depression. When stressful events are interpreted in the context of dysfunctional attitudes certain negative actual event perceptions will occur that may give rise to depressive symptoms (Robins and Block, 1992). Beck's negative cognitive triad theory of depression implies that a negative view of the self increases as a function of depression. The negative view of the self leads to the general hypothesis that depressed people attribute success to forces beyond their control such as easy task or good luck. Under conditions of failure attributions stating lack of skill, ability or lack of effort as reasons for failure, will increase significantly as a function of depression. Under stressful circumstances these global, rigid, negatively toned beliefs create a distorted, negative view of the self, future and world (the negative triad).

Beck (1976) maintains that specific automatic thoughts discriminate patients diagnosed with different psychiatric

disorders. When depressed persons find themselves in stressful situations, they tend to focus on and then exaggerate the negative aspects of those situations. Even if the event is truly negative, the depressed person exaggerates the negative aspects of the event, and ignores positive information beyond that which other people would consider appropriate. The negative thinking typical of depressed patients produces a negative cognitive shift in which the patient's cognitive information-processing system changes (Beck, 1991). With the passage of time, enduring sets of negative beliefs and attitudes tend to make a person more vulnerable to depression whenever s/he is in a stressful situation. Particularly salient are events perceived as reminiscent of the past experiences from which the present dysfunctional attitudes evolved.

A significant error in the depressed patient's thinking involves high levels of negative expectations about the future (Beck, 1976). Beck operationally defined a negative view of the future as hopelessness. Much research over the past twenty years has studied the relationship between hopelessness, depression and suicidal behaviour. In clinical populations hopelessness has repeatedly been found to be a better correlate of suicidal ideation than depression (Beck, Steer, Kovacs & Garrison, 1985; Minkoff, Bergman, Beck & Beck, 1973; Silver, Bohnert, Berchick, Stewart & Steer, 1990).

Beck's theory is similar to the Reformulated Learned Helplessness Theory (Abramson, Seligman & Teasdale, 1978) in that both specify a trait-like cognitive diathesis and a set of specific event-related cognitions that derive from that diathesis and are activated by stressful life events (Robins & Block, 1992). Although Beck's model is less explicit than Hopelessness Theory (Abramson, Metalsky & Hartlage, 1985; Abramson, Metalsky & Alloy, 1989), it is similar in that it suggests hopelessness mediates the depressive effects of stress.

2.2.2. LEARNED HELPLESSNESS THEORY AND THE REFORMULATED LEARNED HELPLESSNESS THEORY.

The original Learned Helplessness Model proposed that experiences with noncontingent, uncontrollable events led to an expectation of future noncontingency that generalised to

new situations and resulted in the cognitive, motivational and emotional deficits characteristic of helplessness and clinical depression. In 1978 the Learned Helplessness Theory underwent a radical change in emphasis to include an attributional component. Abramson, Seligman and Teasdale (1978) posited the significance of a characterological tendency to attribute negative events to internal, stable and global causes which they refer to as the depressogenic attributional style. Abramson et al., (1978) proposed that it is when the depressogenic attributional style is brought to bear on events experienced by the individual giving rise to actual event attributions, that depressive symptoms may occur. The diathesis-stress component of the model is based on the hypothesis that dysfunctional attitudes and attributional styles increase the probability of depression only to the extent that they are activated by stressful life events (Alloy, Clements & Kolden, 1985; Beck, 1967; Riskind & Rholes, 1984). Several recent studies have looked at the relation of depression or depressive symptoms to the interaction between cognition and the frequency or intensity of stressful events (Hammen, Marks, Mayol & deMayo, 1985; Metalsky, Abramson, Seligman, Semmel & Peterson, 1982; Metalsky, Halberstadt & Abramson, 1987; Olinger, Kuiper & Shaw, 1987; Persons & Rao, 1985; Robins & Block, 1988; Rothwell & Williams, 1983).

The Attributional Reformulation of the Learned Helplessness hypothesis resolved a number of the inadequacies of the original hypothesis when applied to depression. Instead of helplessness being seen simply as a product of expectations and noncontingency, Abramson et al. (1978) proposed that it was people's understanding of the cause of the current or past noncontingency that determined expectations of future noncontingency and ultimately lead to helplessness. The effects of experiences with response-independent events were now said to depend on the causal explanations that the individual makes for such events. Depressed people were hypothesised to exhibit a bias towards making internal, stable and global attributions for negative outcomes and external, unstable and specific attributions for positive outcomes. This has come to be known as the "depressive attributional style" (Seligman, Abramson, Semmel & von Baeyer, 1979). According to the Reformulated hypothesis, the kinds of causal attributions that people make for lack of control, influence whether their hopelessness will

generalise across situations and time.

The Reformulated model predicts that when a bad outcome is attributed to stable, global and internal factors, depression ensues. The role of attributions for good outcomes seems less direct. Among the possibilities are that attributions to global, stable and internal factors for good outcomes blunt the impact of bad outcomes and increase "ego strength". Good outcomes are less remembered or valued by depressives.

Numerous studies support the Reformulated Hypothesis (Anderson, Horowitz & French,1981; Fencil-Morse & Seligman,1976; Golin, Sweeney & Shaeffer,1981; Metalsky Abramson, Seligman, Semmel & Peterson, 1982; Rizley & Kuiper, 1978.) During the last ten years the model has had a major impact on theoretical developments in clinical psychology, specifically on reactions to uncontrollable outcomes, and depression. In short, the Abramson et al. (1978) reformulation of the Learned Helplessness Model addresses many of the shortcomings of the earlier model. The first model was unable to explain why depression is frequently associated with low self-esteem, why depressed individuals often make internal attributions for their failure or when depressions would be short-lived or chronic, specific or general. According to the model, attributions of uncontrolled outcomes to internal, stable and global factors predispose an individual to low self-esteem and feelings of helplessness. Abramson et al., (1978) speculated that depressions will be more intense if attributions are made to internal or personal factors. The chronicity and generality of the depression follows from the stability and globality of the attribution made for helplessness.

2.2.3. HOPELESSNESS THEORY

Hopelessness Theory (Abramson, Metalsky & Hartlage, 1985; Abramson, Metalsky & Alloy, 1989) is a cognitive diathesis-stress model of depression which postulates that individuals who possess particular dysfunctional inferential styles (diathesis) are at increased risk for becoming depressed when they experience negative life events (stress). Hopelessness is defined as an expectation that highly desired outcomes are unlikely to occur or that highly aversive outcomes are likely to occur, and that no response

in one's repertoire will change the likelihood of these outcomes. Specifically individuals who explain negative events in terms of internal, stable and global causes are hypothesised to be more likely to develop symptoms of depression or even full-blown episodes of depression, than individuals who make external, unstable and specific attributions when confronted with negative life events. A depressogenic attributional style is considered a contributory cause of depression in the presence of stress, but is neither necessary nor sufficient for the occurrence of depression. Hopelessness is seen as the proximal sufficient cause of depression while the two distal contributory causes are negative attributional style (diathesis) and presence of negative life events (stress). In the presence of stress, persons who possess this negative attributional style are considered more likely to develop hopelessness depression than those without a negative attributional style. In the absence of stress, neither group should be any more likely than the other to develop depressive symptoms. Thus hopelessness is considered to be a factor which may mediate the potentially depressive effects of stress.

The Hopelessness Theory of Depression has generated considerable empirical attention. Several longitudinal studies suggest that hopelessness is a significant predictor of future depression even after variance due to current depression is partialled out (Riskind, Rholes & Neville, 1985). Results of another longitudinal study indicate that hopelessness is predictive of future suicide even over a ten year period (Beck, Steer, Kovacs & Garrison, 1985). This provides evidence that hopelessness may be a stable cognitive vulnerability marker for subsequent pathology.

2.3. THE CONCEPT OF ATTRIBUTIONAL STYLE.

When the Learned Helplessness Model of Depression was initially proposed (Seligman,1974), it did not include the concept of attributional style. When attributional style was added to the model (Abramson et al., 1978) there was some confusion about how to operationalise and measure this construct. Specifically, attributional style refers to the tendency of individuals to make consistent attributions across different times and situations. The depressogenic attributional style is the tendency to attribute negative

events to internal, stable and global causes. Conversely, positive events are attributed to specific, external and unstable causes.

The causal attributions offered by depressives for the good and bad events in their lives have long been the subject of interest to researchers. All the attributional theories of depression propose that depressives and nondepressives differ in their causal judgements and that these differences are closely linked to the presence and extent of depressive symptomology. According to the Reformulated Learned Helplessness model of depression, depression is the result of experience with uncontrollable aversive events. However, the nature of the depression following uncontrollable events is governed by the causal attributions the individual makes for them. If they are seen as caused by something about the person (internal attributions), as opposed to something about the situation (external attributions), then the resulting depression is hypothesised to involve loss of self-esteem. If the uncontrollable events are attributed to nontransient factors (stable attributions), in contrast to transient ones (unstable attributions), then the depressive symptoms are expected to be long lasting. Finally, if the uncontrollable events are attributed to causes present in a variety of situations (global attributions), as opposed to more circumscribed causes (specific attributions), then the ensuing depression is thought to be more pervasive.

2.4. THE RELATIONSHIP BETWEEN DEPRESSION AND THE DEPRESSED ATTRIBUTIONAL STYLE.

Since the advent of the Reformulated Learned Helplessness Theory many studies have investigated its relevance to depression. Reviews of the attribution and depression literature have drawn opposite conclusions. Peterson and Seligman (1984) concluded that results support the model. In contrast, Coyne & Gotlib (1983) found little support for the model. It is contended that the cause of the discrepancy is that the Reformulated Learned Helplessness Theory generates a number of alternative predictions about the relation of attributions to depression. This section will outline the various studies and their findings, so as to better evaluate the usefulness of the concept of Attributional Style.

A recent body of experimental literature supports the role

of specific attributional styles in the development and course of depression. It shows a correlation between depressed mood and the tendency to attribute positive events to external, unstable and specific factors, and negative events to internal, stable and global factors (Hammen & Krantz, 1976; Klein, Fencil-Morse & Seligman, 1976; Raps, Reinhard, Seligman, Peterson & Abramson, 1982; Rizley, 1978; Sweeney, Shaeffer & Golin, 1982). Sharp & Tennen (1983) found that depressed individuals attributed poor performance on a task to themselves more than nondepressed or anxious subjects. They failed to take relevant attributional cues into account and accepted the negative evaluation of others over personal evaluations. Depressed subjects fail to consider available attributional cues in forming their attributions and make self-blaming, schema-driven causal ascriptions in the face of contradictory evidence. Further, Heimberg, Klosko, Dodge, Shadick, Becker & Barlow (1987/9) examined the specificity of the attributional style to depression using depressives, anxious and normal subjects. While dysthymic patients evidenced internal, stable and global attributions for negative events, anxious and normal subjects did not differ radically from dysthymic patients on scores of helplessness attributions for negative events. The findings suggest attributional style is associated with a diagnosis of affective disorder but is not specific to it.

Strongest support for the attributional vulnerability hypothesis comes from Alloy, Abramson & Lipman (1992) who used a retrospective behavioural high-risk paradigm and found that attributionally vulnerable subjects (those possessing a dysfunctional inferential style) experienced higher rates and a larger number of episodes of major depressive disorder in the two years than did attributionally invulnerable subjects. Subjects at high risk for attributional vulnerability had more episodes of major depression than low risk subjects and the former tended to be of longer duration. This corroborates the hopelessness theory's prediction that depressogenic attributional style confers a specific risk for a hopelessness subtype of depression. In addition nondepressed subjects who possessed either a depressogenic or nondepressogenic attributional style were compared with attributionally invulnerable subjects on their probability of exhibiting major depressive disorder and the hypothesised subtype of "hopelessness depression" as well as on number,

duration and severity of episodes of major depression in the past two years. The high-risk subjects (those with a depressogenic attributional style) had more severe episodes of past major depression than did low-risk subjects. These findings represent the first pieces of evidence to date to validate attributional style as a diathesis for depression using a retrospective behavioural high-risk paradigm.

The major conceptual limitation of the study is the lack of clarity regarding the direction of the association between depressogenic attributional style and increased rates of past depression. This is due to the retrospective nature of the design. If it is assumed that attributional style is reasonably stable over time, then individuals characterised by an internal, global and stable attributional style for negative outcomes in the present should also have been vulnerable to depression in the past, and therefore more likely to have experienced past episodes of depression as a result of having this dysfunctional style. Alternatively a depressogenic attriubtional style in the present may be a scar left over from having suffered past episodes of depression. Of course even if a depressogenic attributional style originally developed as a consequence of past episodes of depression, the presence of this style in the currently nondepressed individual might well be predictive of increased risk for future episodes of depression. While Abramson et al., (1992) used a retrospective design, future research needs to concentrate on a prospective design. Previous research has focussed on whether dysfunctional thinking is a stable antecedent vulnerability to depression or whether it is a consequence of depression. Evidence, however, suggests that dysfunctional thinking is state dependent. Depressive schemata believed to predispose to depression do not remain stable. Miranda et al., (1992) found persons vulnerable to depression report dysfunctional thinking but only when in a negative mood state. Dysfunctional beliefs remain latent until activated by stressful life events. Thus dysfunctional thinking may be a vulnerability factor for depression. The study does not prove this conclusively, only that dysfunctional thinking is not stable in formerly depressed individuals and that it is elicited by stressful life events. A direct test of the hypothesis that dysfunctional thoughts are vulnerability factors for depression would require a prospective longitudinal study with repeated measurement of

dysfunctional thinking, life stress and depression.

Interestingly, adolescent suicide attempters have been found to display frequent attributional errors as compared to psychiatric controls (Hart, Spirito & Overholser, 1988). In a study, comparing adolescent suicide attempters with a group of psychiatrically hospitalised adolescents on the Children's Attributional Style Questionnaire and the Children's Depression Inventory, the two groups were found not to differ on level of depression. The adolescent suicide attempters were more likely to view negative events as stable characteristics of their environment than the nonsuicidal psychiatrically hospitalized sample. Cognitive distortions appear more frequently in at least a subgroup of high-risk suicide attempters (Spirito et al., 1989).

2.5. EVIDENCE DISPROVING THE REFORMULATED LEARNED HELPLESSNESS THEORY OF DEPRESSION.

Most cognitive theories of depression have assumed that characteristic ways of thinking predispose one to depression. Three types of evidence appear to refute the theories. Longitudinal studies following depressives over the course of their illness show that as depressive symptoms remit, underlying dysfunctional beliefs and attributions remit as well (Dohr, Rush & Bernstein,1989; Dobson & Shaw, 1987; Eaves, Rush, 1984:, Hammen, Miklowitz & Dyck, 1986; Hamilton & Abramson, 1983; Klein, Harding, Taylor, Dickstein, 1988; Persons & Rao, 1985). The finding that dysfunctional attitudes and attributions wax and wane with the clinical state appears to refute the hypothesis that they are stable traits causative of depressive states.

Secondly, comparisons of normal subjects and recovered depressives show these groups do not differ in dysfunctional attitudes or attributions. The finding that remitted depressives do not differ from normals contradicts the theories because unless patients received therapy designed specifically to produce changes in dysfunctional attributions, the stable cognitive vulnerability factors would be expected to be present in recently recovered depressives. Studies supporting this finding include: Blackburn & Smyth, 1985; Dobson & Shaw, 1986; Dohr, Rush & Bernstein, 1989; Fennell & Campbell, 1984; Hamilton & Abramson, 1983; Hollon, Kendall & Lumry, 1986; Reda et al.,

1985.

Thirdly, prospective longitudinal studies evaluating cognitions which predispose individuals to later depressive episodes have produced mixed results. Two important studies report negative findings. Dysfunctional beliefs and attributions did not predict the onset of depression during a one year study of a large community sample. Similarly depressive self-schemas did not predict subsequent depressive symptomology in a four month follow-up of college students (Hammen, Marks, DeMayo & Mayol, 1985). These prospective studies did not find that stable cognitions are vulnerability factors that predict subsequent depression. This evidence contradicts the theories because stable underlying cognitions in asymptomatic populations should predict those who will develop subsequent depressions. In response to this large body of negative evidence many investigators have concluded that dysfunctional attitudes and attributions are not vulnerability factors, but instead are consequences or correlates of depression or even simply part of the depressive syndrome itself (Barnett & Gotlib, 1988; Coyne & Gotlib, 1983; Dohr et al., 1989; Hammen et al., 1985; Lewinsohn et al., 1981). These authors suggest that the cognitive theories of depression accurately characterize the nature of thinking during depressive episodes, but do not describe the vulnerability factors that determine which individuals become depressed in the face of stressful life events. Hammen et al., (1989) studied chronic depressive individuals who are likely to be in a negative mood during assessment. As a result of their negative mood, these subjects were likely to have access to their dysfunctional beliefs. The findings suggest that the mood state hypothesis accounts for many findings that appear to contradict the cognitive theories of depression and may also explain the positive results obtained in a few studies that support the theory.

Lewinsohn, Steinmetz, Larson and Franklin (1981) found that the capacity of cognitions to predict depression found null results. Negativistic cognitions did not function as an antecedent cause of depression. Furthermore, Lewinsohn et al. (1981) found that subjects with a history of depression, but who were not depressed at first testing, did not exhibit more negativistic patterns of cognition than non-depressed persons who had no history of depression. This finding

relates to what Lewinsohn et al., (1981) called the 'scar' hypothesis, and suggests that prior depression does not permanently influence cognitive style. Peterson, Schwartz & Seligman (1981) confirm the above findings. There is no evidence that a person's cognitive patterns at one time provide useful information about the onset of depressive symptoms at subsequent times.

It would seem that empirical evidence to date regarding cognitions as antecedents of depression is mixed. Although there are few studies, these disparities in findings do not seem simply due to the variety of cognitive measures used. The most clear-cut indication that the failure of some studies to find positive prospective results is not due simply to the measures used is the fact that Lewinsohn et al.(1981) found no results for numerous variables. The mixed results suggest a need to focus more carefully on possible moderator variables rather than simply on different types of cognitive measures. One step toward understanding some possible moderator variables is suggested by current work in cognitive and social psychology that is consistent with Beck's formulation of his model of depression. In order to better understand the relation between negativistic patterns of thinking and depression, it may be fruitful in subsequent research to consider more fully the implications of accessibility and priming.

2.6. ATTRIBUTIONAL STYLE AND COPING.

There has been a paucity of research on attributional style and coping strategies. Coping strategies can be defined as "cognitions and behaviours that a person uses to reduce stress and to moderate its emotional impact" (Lazarus & Folkman, 1984, cited in Mikulincer, 1992, p.567). Coping strategies fulfill two functions. Firstly a problem-focused function of channelling resources to solve the stress-creating problem, and secondly, an emotion-focused function for easing the tension aroused by the threat by means of intrapsychic activity such as wishful thinking, rationalization or distancing (Folkman & Lazarus, 1980, 1985 cited in Mikulincer, 1992, p.567).

Lazarus and Folkman (1984) maintain that people choose a particular way of coping in accordance with their cognitive appraisal of the threatening situation with which they are

dealing. Thus it is not surprising that some authors have speculated that the way people explain the occurrence of an event predicts the type of strategy they choose to deal with it (Peterson & Seligman, 1987). Neither theory nor research, however, has dealt with the effects of attribution on coping or indicated the processes that might underlie these effects. Mikulincer (1992) attempted to understand this better by examining whether coping responses mediate the performance effects of attribution following unsolvable problems. Mikulincer hypothesised that attribution of failure influences the expectancy of control and off-task cognitions which in turn influences the coping responses that subjects use. These effects on coping responses are in turn reflected in performance. Mikulincer (1992) found that causal attribution was associated with the coping strategies people use in dealing with stressful events. Subjects who attributed failure to internal and general causes were more likely to use emotion-focused coping and distancing coping and less likely to use problem-focused coping than subjects who made an external and specific attribution. How are we to understand the causal pathway ?

Mikulincer (1992) suggests coping is a consequence of attribution. The following explanation suggests why. Mikulincer found that general attribution ie: stable and global attributions, were related to problem-focused coping and that the expectancy of control contributed to the mediation of such a relationship. If the individual expects that his/her instrumental responses will bring relief then s/he is motivated to use problem-focused means of coping to increase expectancy of control However, if the individual has learned that its responses have no effect in trauma the expectation of control is minimal and the individual less likely to implement problem-focused coping. Indeed Mikulincer (1992) found that internal and general attributions were related to emotion-focused and distancing coping, and that thoughts experienced outside of the test situation contributed to the mediation of such a relationship. Mikulincer (1992) explains this finding in two ways: firstly engagement in off-task cognitions might give predominance to the inner state of the organism over task related cognitions. This inward focus of attention might increase the use of coping strategies that deal with inner states at the expense of coping strategies that address environmental events. Furthermore, engagement in off-task

cognitions may be a particular manifestation of emotion-focused coping. Folkman and Lazarus (1984) regarded rumination on one's current emotional state to be one of the most important emotion-focused coping strategies.

Mikulincer did not find help-seeking to be associated with attribution. Mikulincer concludes that causal attribution may be an important component of the stress-coping process. In sum, problem focused coping can be linked to stable/global attributions and to the expectancy of control. Emotion focused coping can be linked to all three attributional dimensions and to the engagement in off-task cognitions.

In sum, although research findings are mixed there is support indicating that depression is linked with a particular attributional style characterised by internal, stable and global ways of attributing causes to events. This lends support to the hypothesis that adolescent parasuicides (many of whom display depressed affect) will display a similar depressive attributional style. Furthermore, Mikulincer's findings suggest that attributional style is correlated with a particular choice of coping strategies. Stable and global attributions were linked to emotion-focused coping which lends support to the hypothesis that adolescent parasuicides may exhibit emotion-focused coping strategies. The impetus underlying the investigation of attributional style is that if clinicians better understand the cognitions underlying the choice of certain coping strategies they will be better equipped to alter coping strategies chosen by adolescent parasuicides. In this way, an understanding of attributional style among adolescent parasuicides could assist in preventing adolescents from making choices of negative coping strategies.

CHAPTER THREE: PROBLEM-SOLVING and COPING.

3.1. Introduction.

Research into problem-solving has formed the basis of research into coping behaviour. Suicide and parasuicide have for the most part been conceptualised as responses to transient or chronic stress yet few research studies until recently have investigated the connection between parasuicide and problem-solving skills. Most studies involving problem-solving have investigated correlations with depression and life stress. For a long time depression was thought to be the key mediating factor between suicide or parasuicide and stress. However, research and clinical experience clearly indicate that many individuals do not experience depressed mood even under severely stressful circumstances (Ceresin, Levine & Ceresin, 1982). Recent research has addressed the role of various other psychosocial variables that might serve to mediate the effects of life stress on parasuicide or suicide. Such variables include social support (Brown & Harris, 1978), coping skills (Pearlin, Liebermann & Menaghan & Mullan, 1981), attributional styles (Metalsky, Abramson, Seligman, Semmel & Peterson, 1982) and cognitive appraisal processes (Lazarus, Coyne & Folkman, 1982 cited in Nezu, Nezu, Saraydarian, Kalmar & Ronan, 1986). While research on problem-solving has investigated correlations with life stress and depression, and more recently with parasuicide, the author is not aware of any study investigating problem-solving and attributional styles.

Social problem-solving refers to the cognitive-behavioural process by which individuals discover or identify effective means of coping with problematic situations encountered in daily living (D'Zurilla & Nezu, 1982). Research indicates that moderately depressed persons evidence deficits in their ability to effectively resolve interpersonal and social problems. Although there are numerous perspectives on suicidal behaviour, many emphasise that it represents an individual's attempt at problem-solving (Applebaum, 1963; Grollman, 1971 in Lazarus & Monat, 1980; Levenson & Neuringer, 1971; Linehan, 1981; Maris, 1971; Neuringer, 1961; Schotte & Chum, 1982; Stengel & Cook, 1958). Both suicide and parasuicide are viewed as attempts to solve problems involving intense internal or environmental

distress. Despite the pervasiveness of the problem-solving perspective in theoretical approaches to suicidal behaviour, there is nonetheless a paucity of research examining the problem-solving capabilities of suicidal individuals. Previous research has examined aspects of cognitive functioning presumably related to an individual's capability for solving interpersonal problems.

Suicidal children and adolescents do not seem to be as good at problem-solving as their nonsuicidal counterparts and this manifests itself in a variety of ways. Parasuicides exhibit more rigid thinking (Levenson, 1972; Neuringer, 1964; Patsiokas, Clum & Luscomb, 1979; Vinoda, 1966); less capacity to solve abstract problems (Levenson & Neuringer, 1971), more cognitive impulsivity (Farberow, McKelligott, Cohen & Darbonne, 1970; Fox & Weissman, 1975; Kessel & McCulloch, 1966) and more field dependency (Levenson, 1972) than psychiatric control populations (cited in Linehan, Camper, Chiles, Strosahl & Shearin, 1987). There is moderate support for the hypothesis that unsuccessful suicides are inflexible in their thinking and unable to formulate alternative solutions to life crises and pressing emotional problems other than suicide. Goodstein (1982) found hospitalized parasuicides scored lower than psychiatric patients on the Means-Ends Problem-Solving Procedure (MEPS) defined as the ability to orient oneself to and conceptualise the step-by-step means of moving towards a solution (Platt, Spivack & Bloom, 1971 cited in Linehan, Chum, Camper, Chiles, Strosahl & Shearin, 1987). The research by Clum, Luscomb & Patsiokas, 1980; Patsiokas, Clum & Luscomb, 1979), Schotte & Clum, 1982, 1987) has also supported the link with cognitive or "impersonal" problem - solving deficits over a variety of cognitive measures. Their research has taken this thought a step further in that they have also found that suicidal people are less proficient interpersonal problem solvers, as measured by the Means-Ends Problem-Solving Procedure (Platt, Spivack, & Bloom, 1971). Linehan's research (Linehan & Nielsen, 1983; Linehan et al., 1987) also supports the existence of deficts in interpersonal problem solving than did those admitted for current suicide ideation without parasuicide.

Most studies examining differences in intelligence between adolescent and adult suicides and parasuicides with control groups showed very little difference. While suicidal

individuals did perform less well on non-verbal tasks and in situations involving test problem-solving abilities they are virtually indistinguishable from control groups on verbal performance or estimates of global intelligence. These findings suggest parasuicides have inadequate problem-solving abilities rather than a deficit in intelligence. One of the earliest studies of this nature was by Levenson and Neuringer (1971). Amongst both nonsuicidal psychiatric and normal control groups, they found that adolescent suicide attempters performed significantly less well on the Wechsler Adult Intelligence Scale (WAIS) Arithmetic subtest and the Rokeach Map Test Problems. Levenson & Neuringer (1971) concluded that suicidal adolescents had a diminished problem-solving capacity.

Schotte and Clum (1982) proposed a model of suicide behaviour hypothesising that when individuals who are cognitively rigid or exhibit poor diversity in interpersoanl problem-solving skills are placed under conditions of high stress, they are unable to cope and become hopeless. Suicide ideation may develop and they may engage in suicidal behaviour. Schotte and Clum (1982) found that those highest in suicide intent were the poor problem-solving subjects who also reported a number of negative life events in excess of the sample mean. Such findings suggest that problem-solving deficits play a role in the development of suicide ideation and intent, but that the role of problem-solving is situational in nature. It is in conjunction with negative life stress that poor problem-solving leads to feelings of hopelessness which in turn result in suicide ideation and intent" (Schotte & Clum, 1982).

In a later study, Schotte and Clum (1987) drew on D'Zurilla and Goldfried's Model (1971) to explain the problem-solving deficits in suicidal psychiatric patients. These were conceptualised as follows:
(a) an inappropriate general orientation towards problems;
(b) difficulty in generating potential alternative solutions to problems once they have been identified;
(c) a tendency to focus on the potential negative consequences of implementing alternatives generated and
(d)insufficient implementation of viable alternatives.

Using this model, Schotte and Clum (1987) regarded increased levels of negative life stress rather than cognitive

rigidity as the cause of problem-solving deficits. This further suggests that problem-solving deficits observed in suicidal subjects are state-dependent rather than trait characteristic. Support for this finding comes from Barnett and Gotlib (1988) and Schotte, Cools and Payvar (1990).

The relationship between interpersonal problem-solving and suicidal behaviour is confirmed among psychiatric patients admitted following parasuicide. They showed lower active interpersonal problem-solving than those admitted for suicide ideation without attempting suicide. Interestingly psychiatric individuals with no history of prior parasuicide demonstrated more active problem-solving skills than suicide attempters who demonstrated more passive problem-solving skills. These findings support the hypothesis that interpersonal problem-solving deficits are stable characteristics of parasuicides rather than an artifact of the stress of the current parasuicidal episode. Thus the critical problem for chronic parasuicides may be a deficit in relevant, active problem-solving rather than a tendency to rely on others to solve them since parasuicides do not report less assertive behaviour than other psychiatric patients (Linehan, Camper, Chiles, Strosahl & Shearin, 1987). Apart from the deficit in generating alternatives to interpersonal problems among adolescent suicide attempters, the latter have been shown to have different coping styles to a community sample of undisturbed, nonsuicidal high school students (Trautman, Dopkins & Shrout, 1990).

Fremouw, Callahan and Kashden (1993) tested the life stress and problem-solving interactional model of suicide risk (Chum et al., 1979), as well as examining interpersonal variables such as family cohesion which have shown encouraging results. The study evaluated the relative contributions and interactions of the psychological variables (eg:current depression, hopelessness and reasons for living), problem-solving abilities, coping styles and environmental factors. Findings showed that the suicide group could be discriminated from the psychiatric group but not from the high school control group. Life stresses did not contribute to the identification of current suicide risk.

Another line of research has looked at coping behaviours where differences in interpersonal coping abilities and

styles have been found. Using a coping strategies test, Asarnow, Carlson and Guthrie (1987) found that when compared with nonsuicidal children, suicide ideators were significantly less likely to generate active cognitive coping strategeis. There were, however, no differences between ideators and attempters. They found that some of the suicidal children even generated suicide as a coping strategy.

An attempt to better delineate the variety of coping strategies available has been made by Spirito (Spirito, Overholser and Stark, 1989; Spirito,Stark and Williams, 1988). Using a checklist that he has devised that he calls "Kidcope," he reports that suicide attempters more often use social withdrawal as a coping mechanism and less often use emotional regulation than do controls. Khan (1989) found the main difference between the suicidal and non-suicidal adolescents to be the latter's ability to cope with angry and sad feelings, and their cognitive capacity to process the consequences of their actions. Related to lack of coping skills is proclivity for substance abuse. Substance abuse may be seen as a substitute for coping and a form of escapism.

Thus it is becoming clear that suicidal adolescents tend to be raised in families that are higher in stress and conflict and lower in support and cohesiveness, experience higher levels of stress and are not as able to cope with what must be experienced as a disharmonious world about them than the families of nonsuicidal adolescents.

3.2. THE DEFINITION OF COPING.

A precise definition of coping is very difficult. Knowledge about coping has primarily been the domain of clinicians who focused on intra-psychic phenomena and tended to overlook the presence of systems-shaped solutions to common life tasks as well as the normative coping modes shared by people who share key social characteristics. While early definitions focused on the concepts of adaptation, adjustment and maladjustment, coping is increasingly been used as an umbrella term delineating an active and complex set of behavioural, emotional and cognitive processes. It refers to any form of behaviour which reflects resistance to problematic situations ranging from major crises such as

serious injury or bereavement to the routine hassles of everyday life that help an individual maintain a degree of equilibrium in the face of adversity. Lazarus (1966) initially proposed a restricted definition of coping applying the concept to situations involving threat or exceptional difficulty. Lazarus, Averill and Opton (1974) regarded such a definition as too narrow in scope. They noted that while coping tended to be examined in the context of threat, frustration and negatively toned emotions, the more positive contexts of challenge and potential gratification and the positively toned emotions connected with them, were also relevant. Coping could thus include the most casual and realistic forms of problem-solving activities, as well as the most highly motivated and pathological efforts to be extricated from real or imagined dangers. More recently definitions of coping reflect the trend towards broadness and inclusiveness. Thus Pearlin and Schooler (1978) simply define 'coping' as the things people do to avoid being harmed by life strains. Folkman and Lazarus (1980) define coping as the cognitive and behavioural efforts made to master or reduce the internal demands and conflicts among them. Ray, Lindop and Gibson (1982) proposed that the description of behaviour as 'coping' implies both the existence of a real or imagined problem and a movement towards it's solution or mitigation. It is behaviour which not only has a stimulus but is purposive. For this reason people talk of coping strategies.

One assumption that seems to remain common to the different approaches is the conviction that the ways in which people cope with stress or stressful events affects their physical, psychological and social well-being (Antonovsky, 1979; Coelho, Hamburg & Adams, 1974; Cohen & Lazarus, 1979; Moos, 1977). Life events are not equally stressful to all people. Each individual has over time developed skills of mastery and adaptation in his or her dealings either with the physical or social world, and does not have to yield helplessly to events and circumstances be they major crises such as serious injury, bereavement or the routine hassles of everyday living. With the appropriate skills and resources, individuals can maintain a degree of equilibrium in the face of adversity. Forms of behaviour which reflect this kind of resistance to problematic situations are termed 'coping'.

The concept of coping defies conceptual clarity. Attempts to systematise the vast and general area are relatively recent. Since the 1970's there has been a rapid growth of curiosity among researchers about coping and adaptation. An adequate system for classifying coping processes has yet to be proposed although initial efforts along these lines have been made (Haan, 1969; Coelho, Hamburg and Adams, 1974; Lazarus, 1986, 1975; Mechanic, 1962). Lazarus (1975) has suggested a taxonomy of coping which emphasises two major categories: direct actions and palliative modes. Direct actions are behaviours such as fight or flight which are designed to alter a troubled relationship with one's social or physical environment. Palliative modes of coping refer to thoughts or actions which do not actually alter the threatening or damaging event but make the person feel better by relieving the emotional impact of stress (bodily or psychological disturbances). Some palliative modes of coping such as defense mechanisms or the deployment of attention away from the stressful circumstances are intrapsychic in nature, while others such as the use of tranquillisers, biofeedback and relaxation, are somatically oriented. This classification does not imply that individuals use one kind of coping process or another exclusively, rather all people employ complex combinations of direct actions and palliative methods to cope with stress. The conditions determining coping methods in particular situations are undoubtedly complex and largely unknown at the time, but probably depend upon the conditions being faced and the options available to the person.

Garrity, Somes and Marx (1977) have described the adequate coper as "one who is orientated toward acting directly on a problem rather than avoiding it. However, the action is not impulsive but tends rather to be rationally considered. The successful coper tends to be optimistic about chances of success, tends to have relatively little anxiety about his/he own aggressiveness, tends to have strong self-esteem and a willingness to act on the basis of personal conviction" (cited in Eagle, 1987, p.25).

3.3. APPROACHES IN RESEARCH ON COPING:

Investigators have pursued two different approaches in the study of coping. Byrne (1964) and Goldstein (1973) have

emphasised general coping traits, styles or dispositions, while others (Cohen & Lazarus, 1973) have preferred to study active ongoing coping strategies in specific stress situations. The former approach is used to study personality, and assumes an individual will utilise a stable pattern or style of coping in most stressful situations. The many psychological traits including coping styles show very limited generality (Cohen & Lazarus, 1973), and hence are poor predictors of behaviour in any given situation. In contrast, those concentrating on active coping strategies prefer to observe an individual's behaviour as it occurs in a stressful situation and then proceed to infer the particular coping processes implied by the behaviours.

3.4. THE FOCUS OF RESEARCH IN COPING STUDIES.

Research has focused on whether some coping processes are more effective than others. Any answer to this problem must be prefaced with a long string of qualifiers due to inherent value questions, levels of analysis, point in time and particular situations. A behaviour which might be effective from the physiological perspective may have devastating consequences for the psychological or sociological domains. Within any one domain what is an optimal response in one situation at a particular point in time, may be damaging in some other situation or at a different point in time.

While interest has been focused on the classification and measurement of coping processes, a highly pertinent issue is the adaptive value of various coping processes and a study of their causes and effects. There is conviction that all coping processes including those traditionally considered undesirable have both positive and negative consequences for an individual and that any evaluation of coping and adaptation must take into account diverse levels of analysis - physiological, psychological and sociological - the short and long-term consequences, and the specific nature of the situation in question (Lazarus, 1974). Broadly speaking, appraisal-focused coping implies efforts to define and redefine the personal meaning of a situation. Problem-focused coping relates to responses that seek to modify or eliminate the source of stress by dealing with the reality of the situation. Emotion- focused coping responses are those that control stressor-related emotions and attempt to maintain affective equilibrium (Billing & Moos, 1984).

Maladaptive coping responses to stress are linked to an increase in dysfunction and illness, and are associated with poor ability to deal with stressful conditions.

3.5. THE MEASUREMENT OF COPING

The integration of individual coping theory and family stress theory has provided the foundation for the development of a coping instrument to assess coping style. Coping behaviours cluster into patterns of coping each of which appears to have a discrete focus. Furthermore, findings offer partial support for a hierarchical conceptualization of coping in terms of specific behaviours and in terms of generalized patterns or style. Four of the patterns appear to involve coping behaviours generally directed at avoidance, ventilating feelings, seeking diversions, avoiding problems and relaxing. The remaining coping patterns are in the realm of transformational coping. Those coping strategies associated with ventilation of feelings and avoidance of problems, are evaluated as undesirable. The functions served by the twelve coping patterns outlined in Lazarus (1966), Pearlin and Schooler (1978) and Moos and Billing (1982) include (a) direct action to reduce demands or increase resources (problem-focused coping); (b) altering the meaning (appraisal); (c) managing the tension (emotion-focused coping).

3.6. FACTORS COMMONLY LINKED WITH COPING

3.6.1.PERSONALITY AND COPING.

Personality and coping style have been considered by some authors to go hand in hand. However, while coping and defensive strategies have been viewed as enduring aspects of the individual, objections have been made to an equation of coping styles with personality on both logical and empirical grounds. Various factors that influence the individuals coping and that are thought to interact closely with personality factors include locus of control, anxiety levels, self-esteem, self-description, mastery, affiliation and approval, conformity and defensiveness. Fleishman (1984) suggests the distinction between coping behaviour and personality characteristics is one of generality or level of abstraction. While coping may be seen in relation to and depending on assets outside of the individual such as supportive networks, general personality orientations are

manifest in the choice of specific coping behaviours in certain circumstances. McCrae and Costa (1986) make the point that assessing personality in terms of typical styles of coping reduces the question of whether personality influences coping to a tautology, and also begs the question of whether specific coping behaviours actually cohere to form a consistent style. Perhaps personality is to be considered a more stable disposition or dominant state, whereas coping relates more to individual behaviour under specific conditions.

A personality characteristic reputed to strongly assist coping effectiveness is self-assertion. This implies that a predisposition to focus on internal aspects of the self is considered to be a stress resistant resource. Fletcher (1985) suggests that private self-conscious individuals attend to their own psychological and somatic reactions to stressful events and interpret internal cues in such a way that encourages efficacious coping.

3.6.2. SOCIAL IDENTITY AND COPING.

Kaplan (1983) argues that the adequacy of a person's coping resources is partly determined by group membership and other identities given to the person at birth. Such 'social identities include the sex, race, familial background, socioeconomic status and the religious affiliation of the individual. The nature of the social groups and social identity gained from such group membership influences the possession of coping resources that are more or less effective in facilitating the satisfaction of environmental demands. Socialization practices seek to transmit to individuals adaptive or coping patterns for current or anticipated social roles. As a result of faulty socialization experiences, some individuals may fail to acquire the skills and experiences necessary for coping with the environment.

3.6.3. SOCIO-ECONOMIC LEVEL AND COPING PREFERENCES:

Socio-economic level and education serve to moderate the effects of stress (Billings & Moos, 1984; Fernandez & Kulik, 1981; McGrath & Burkhart, 1983). Numerous studies have focussed on the effects familial, interpersonal and social networks have on decreasing stress or increasing the

individual's ability to withstand stress (Cobb, 1976; Holahan & Moos, 1986; Kobasa, Mardi, Pucetti & Zola, 1985; Leavey, 1983; Pearson, 1986; Schradle & Dougher, 1985; Tolsdorf, 1976). Other authors suggest that the above-mentioned environments may in fact be a source of interpersonal stress (Coyne & DeLongis, 1986; Leff & Vaughn, 1985).

People of a lower socio-economic group have been shown to use fewer active preparatory coping responses and more fatalistic and avoidance responses than people of a higher socio-economic class (Billings and Moos, 1984). The former's choice of coping strategies may be associated with feelings of powerlessness to change their circumstances and the consequent development of learned helplessness. More educated people may develop higher levels of cognitive complexity which serve to shape more realistic processes of appraisal and more active problem-solving. Fleishman (1984) suggests that more educated people frequently seek advice due to the fact that they place a higher value on expertise in solving problems.

3.6.4. SOCIAL SUPPORT AND COPING:

Many authors regard social support as a protective buffer and moderator of life stress which strengthens the coping abilites and adjustment of the individual (Cobb, 1976; Pearson, 1986; Rabkin & Struening, 1976; Schradle & Dougher, 1985). Supportive networks of family and friends may function to strengthen coping and resistance by providing validation of self-worth in the face of challenges which tend to lower a person's self-esteem. Such support networks may also provide a source for ideas and suggestions about alternative approaches to problem-solving. The idea that social support is a material situation is challenged by Coyne and DeLongis (1986) who examine it as a subjective experience considering it to be more a personal awareness or appraisal than a set of objective social circumstances or even a set of interactional processes.

Social involvement and social interest have also played a central role in adjustment and well-being of the individual. Social interest is regarded as a central personality variable of prime importance to adjustment (Crandall & Lehman, 1977) which appears to moderate high levels of

stress assists in life adjustment (Zarski et al., 1986) and has a positive effect on life satisfaction. Although most research has viewed the positive attributes associated with social involvement and coping there are some negative effects of social involvement. Individuals have different preferences for social interaction and involvement. Coyne & DeLongis (1986) state that frequently social networks may be more of a burden than a support. While certain individuals value supportive relationships as a timely and effective solution to the difficulties they face, others have to deal with poverty and role overload that is so oppressive that their lack of support pales by comparison. Social support may be needed for some more than others who prefer to remain uninvolved in particular groups.

3.7. ADOLESCENT COPING:

Adolescence is a period of human development characterised by a complex set of developmental tasks and demands that move the young person from childhood to young adulthood. Coping behaviour has been viewed as an important component of psychosocial competence (Tyler, 1978) by which an adolescent is able to balance and manage the developmental tasks of adolescence. Coping processes in adolescence are important where the young person is confronted with many life stressors and strains for the first time and has not yet developed a repertoire of coping responses from which to draw. Adolescents are often at high risk because their intense energy coupled with minimal experience with new demands results in extreme reactions leading to potentially serious consequences. The coping style which emerges from these efforts during adolescence has long-term consequences in that it shapes the coping style of adulthood (Vaillant, 1977).

Patterson and McCubbin (1988) view coping as one of four components that interact and influence adolescent development and adaptation. They present a perspective based on family stress theory wherein adolescent coping is viewed as an active effort to manage individual and family related demands. The adolescent is viewed as one member or system within a larger context of nested systems which include individual family members who comprise a family system which is embedded within the community or larger social system. Each of these levels or systems - individual, family and

community - is characterised by demands and capabilities which strive to achieve adaptation through reciprocal relationships where the demands of one unit are met by the capabilities of another so as to achieve a "balance" in functioning. This balance is achieved when there is a minimal discrepancy between demands and capabilities. Put more simply, adaptation calls for "fit" at each systemic interface - individual-to family, family to community and individual to community. From the adolescent's perspective, adaptation is achieved by simultaneously fitting within his or her family and within his or her community.

Successful coping results in adaptation where the adolescent achieves a 'fit' both within the family and within the community. Adolescent coping involves a flexible orchestration of cognitive, social and behavioural skills in dealing with situations that contain elements of ambiguity, unpredictability and stress. Adolescents appear to acquire coping behaviours and styles from at least four different sources: (a) previous personal experience in handling similar situations; (b) vicarious experience associated with observing the success or failure of others, especially family members; (c) perception of their own physiology and inferences they make about their vulnerability and (d) social persuasion, particularly by partners, peers and significant others.The stimulus for acquiring new coping responses is experiencing new kinds of demands and/or an increased number of demands for which one's existing repertoire of coping responses is no longer effective. Periods of rapid change in society, in the family and in the individual family members are likely to upset the demand-capability balance and the desire to restore homeostasis often leads to the acquisition of new coping responses.

3.8. LAZARUS AND FOLKMAN'S MODEL OF COPING:

Lazarus and colleagues (Folkman & Lazarus, 1980; Folkman, 1984; Lazarus et al., 1985) developed one of the most comprehensive models of coping where the emphasis is placed on the cognitive and behavioral responses people report in response to stressful events. The model is transactional and process-orientated and falls within the cognitive-phenomenological theory of stress. Stress is viewed "as a relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her

resources and as endangering his or her well being." (Folkman, 1984, p.840). According to this definition, stress is not a property of a person or the environment, nor is it a response or a stimulus, but a relationship between demands and the power to deal with them without unreasonable or destructive costs.

The process-orientated aspect of the model reflects two assumptions. The environment and person are in dynamic relationship with each other which is constantly changing. Furthermore, the relationship is bidirectional i.e. the person and environment each act on the other (Folkman, 1984). Folkman emphasises that appraisals of coping are likely to change throughout a stressful episode due to shifts in the person-environment relationship. it is the indiviudal's cognitive processes that are seen to mediate the transaction. Two processes mediate this relationship: appraisal and coping.

Central to the model is the focus on the role of cognitive appraisal in guiding responses to stress and the form that coping efforts take. Appraisal is the cognitive process whereby an individual continually evaluates and re-evaluates judgements about demands and constraints in transactions with the environment and options and resources for meeting them A key assumption is that these evaluations determine the person's stress reaction, the emotions experienced and adaptational outcomes. Appraisal takes place a a primary and secondary level. Primary appraisal concerns an evaluation of the implications of the situation, whereas secondary appraisal evaluates the coping resources available and their effectiveness. it refers to the individuals ongoing judgements concerning coping resources, options and constraints. The determinants of secondary appraisal in a given stressful episode include the person's previous experience with such situations, generalized beliefs about self and the environment and availability of resources which include person's morale, assessment of health/energy, problem-solving skills, social support and material resources (Folkman, Schaefer and Lazarus, 1979). Folkman & Lazarus (1980) point out three major types of stressful appraisals:

1) harm-loss: evaluating damage that has already occurred.
2) threat: anticipated harm or loss.

3) challenge: anticipated opportunity for mastery or gain. The degree to which a person experiences psychological distress, feels harmed, threatened or challenged in a specific encounter is determined by the person's evaluation of what is at stake and the evaluation of their existing coping resources and options (ibid, 1980).

Coping is the second process understood by Lazarus et al., to mediate the person-environment relationship. Coping refers to the "cognitive and behavioural efforts to master, tolerate or reduce external and internal demands and conflicts among them" (ibid, p.223). Although coping efforts are made in response to stress appraisals, coping and appraisals continuously influence each other throughout a stressful encounter. Thus a new appraisal may engender new coping efforts.

Coping processes refer to what a person actually thinks and does in a particular stressful encounter and to changes in these efforts as the encounter unfolds during a single episode or across several episodes that are a part of a common stressful encounter. Folkman and Lazarus (1980) delineate two main modes of coping on the basis the function the coping efforts serve:

(1) Problem-focused coping refers to coping efforts that manage or alter the person-environment relationship that is the source of stress. These coping efforts fundamentally entail direct action on the self or the environment. Thus problem-oriented coping involves efforts to deal with the sources of stress whether by changing one's own problem-maintaining behaviour or by changing environmental conditions.

(2) Emotion-focused coping concerns regulating stressful emotional responses. It also includes cognitive forms of coping such as traditional intrapsychic processes and defense mechanisms. Emotional regulation involves coping efforts aimed at reducing emotional distress and maintaining a satisfactory internal state for information processing.

Successful transactions with the environment generally involve both coping functions. Lazarus et al., have isolated two determinants that affect coping behaviour: situational determinants and personality determinants.

Situational factors such as type, intensity and duration of the situation elicit certain kinds of coping responses. Lazarus et al., are interested in situational factors that elicit emotion-focused and/or problem focused coping. Certain situations provide little or no opportunity for direct action on the environment and thus elicit emotion focused coping efforts, problem-solving coping efforts involving direct action would be considered if any potential ways of changing the environment were possible.

The personality disposition is the second major determinant of coping responses. Personality directs coping efforts because they provide an orientation to dealing with difficulties that shape or constrict the range of available coping processes available to an individual in a given situation. Thus coping is seen to be a complex, multidimensional construct. it is a transaction and process orientated construct involving person and environment. Coping efforts and cognitive appraisal of the person-environment transaction constantly interact and mutually influence each other in an attempt to adapt or change the situation which is perceived as a threat.

SECTION B: RESEARCH AND DISCUSSION

CHAPTER 4. THE RESEARCH STUDY.

4.1. RATIONALE AND AIMS.

The purpose of this study was to examine aspects of the relationship between suicide intent, attributional style and coping strategies among female adolescent parasuicides. While much research has investigated family functioning among Indian adolescent parasuicides in South Africa, none has focused on the coping styles, attributional styles and suicide intent among Indian and Coloured adolescent parasuicides. The intention of this study was to undertake research with adolescent parasuicides in the Pietermaritzburg area in order to contribute meaningfully to school based suicide prevention programs that are being planned for this area. With rates of adolescent parasuicide increasing, it is imperative that every effort be made to counteract the occurrence of this everyday phenomenon.

The author is aware of no study examining the relationship between attributional style and suicide intent among adolescent parasuicides. Attributional style has been linked with depression among children, adolescents and adults (Doerfler et al., 1984), yet extensions from this literature to adolescent parasuicides (many of whom are not depressed at the time of the attempt) are inaccurate since not all parasuicides are depressed. It is for this reason that original research was undertaken. Furthermore, cognitive theories state that the way in which a person thinks greatly determines their emotional state. While suicide and parasuicide have been linked to affective illness (especially depression and anxiety) it is known that hopelessness rather than depression per se is a prerequisite for suicidal ideation or intention (Schlebusch & Wessels, 1988). The question then arises: to what extent does an adolescent's attributional style affect the decision to attempt suicide ?

Previous research has examined coping strategies/styles among adolescents coping with normal life tasks (Patterson & McCubbin, 1987), but none has focussed on coping strategies among adolescent parasuicides.

The design of this study uses the correlational method as variables were not conceived of as being causative of one another. The sample comprised 25 adolescents who had attempted suicide and who were admitted to Northdale Hospital. A matched control group (comprising matched pairs) was drawn from schoolgirls in the Northdale and Eastwood areas of Pietermaritzburg. The data from the control group yielded valuable comparative baseline data.

4.2. HYPOTHESES:

The present study is largely an exploratory one, having few research precedents to rely upon. Three hypotheses can be isolated:

HYPOTHESIS 1: The parasuicidal subjects will show variation in suicide intent compared with the control group.

HYPOTHESIS 2: The parasuicidal subjects differ from the control subjects in terms of their attributional style. Parasuicides exhibit a depressive attributional style (internal, global and stable attributions), while control subjects manifest more external, specific and unstable ways of attributing events.

HYPOTHESIS 3: The parasuicidal subjects differ from the control subjects in terms of their use of coping strategies, Parasuicides exhibit more emotion-focused coping strategies, while control subjects exhibit more problem-focused coping strategies.

4.3. SUBJECTS.

The subjects of this study consisted of 50 female Indian and Coloured female adolescents between the ages of 13 and 19 years. Twenty five parasuicides who attended Ward B (female medical ward) of Northdale Hospital after having attempted suicide were selected. These subjects were then matched to a control group of 25 subjects who attended three high schools in the Northdale and Eastwood areas of Pietermaritzburg (Northbury High, Heather Secondary and Eastwood Senior Secondary). The voluntary nature of the study was emphasised to each subject and a letter of consent addressed to the parent or guardian of the adolescent (see Appendix H).

The sample comprised females only, ranging in age from 13 to 19 years. Prior to filling out the three questionnaires, a biographical interview was conducted with each subject so as to control for sex, age, race, educational and socio-economic level. Parasuicide subjects from Ward B of Northdale Hospital were seen at the Northdale Psychology Clinic. Control subjects were selected only after all parasuicide subjects had completed the three questionnaires. Control subjects were selected by a guidance teacher at each of the three schools. A list of the required age, sex, race and educational level of the subjects was supplied to the various school principals to facilitate accurate matching of groups. Although the parasuicide and control groups were matched, the control group was not screened for suicidal intent or previous suicide attempts prior to administration of the questionnaires.

4.4. INSTRUMENTS USED:

4.4.1. THE SUICIDE INTENT SCALE.

The Suicide Intent Scale (S.I.S.) developed by Beck, Schuyler and Herman (1974) is a widely used measure of suicide intent (see Appendix A). The latter is defined as the seriousness or intensity of the patient's wish to end his/her life. The scale was designed to record data relating to the intensity of an attempter's wish to die at the time of an attempt (Beck et al., 1974 in Wood, 1987). The Suicide Intent Scale is comprised of 15 items selected from a pool generated by Beck et al. (1974) as the result of their clinical investigations and review of the literature. Each item is rated on an ordinal scale of 0,1, and 2, with the total score ranging from 0 to 30. The scale consists of two sections. Section 1 comprises items dealing with the objective circumstances related to the suicide attempt (items 1-8) such as whether others were nearby or could possibly have intervened, whether there were acts in preparation of the attempt, and whether there was communication of intent (Mieckowski et al., 1993). The informant is usually the patient himself although corroboration by family, friends and other witnesses is desirable (Beck et al., 1974 in Wood, 1987). Section 2 "Self-Report" contains items based on the patient's self-report of his/her internal concept of intent (items 9-15),

and includes items that tap expectations of fatality, seriousness of attempt and attitudes towards dying (Mieckowski et al., 1992). This section mainly records the patient's thoughts and feelings at the time of the attempt. The introspective data is dependent on the patient's willingness to co-operate and his/her ability to analyse his/her state of mind prior to the suicide attempt. It includes such items as the patient's expectations regarding the seriousness of the attempt and the extent of his/her ambivalence towards living (Wood, 1987).

4.4.2. ADMINISTRATION AND SCORING OF SUICIDE INTENT SCALE:

The S.I.S. is completed on the basis of retrospective data obtained from the patient and significant others. Items are ordinal in nature, with three alternative statements graded in intensity from 0 to 2. All information pertaining to the various items is obtained during the course of the interview. The interviewer selects the rating that best applies. The total score consists of the summed score of all the items and ranges from 0 to 30 (Wood, 1987).

4.4.3. RELIABILITY AND VALIDITY OF SUICIDE INTENT SCALE.

Beck et al.(1974) reported an inter-rater reliability of $r = 0.95$ on a sample of 45 suicide attempters. Patients were interviewed consecutively by a pair of interviewers one of whom was experienced and one inexperienced. In addition a split-half reliability test of the Suicide Intent Scale was conducted yielding a coefficient of 0.82. (Wood, 1987). Mieckowski et al., (1993) conducted a study examining the reliability of the S.I.S. subscales. Using Cronbach's alpha the reliability of the 15-item scale was alpha = 0.81. The reliability of the Lethal Intent subscale was alpha = 0.90, and the Planning subscale was alpha = 0.74.

The validity of the S.I.S. has been explored by several investigators. Beck, Schuyler and Herman (1974) reported that the mean total score of Section 1 (items 1-8) was significantly higher for 31 completed suicides compared to 49 nonfatal attempters. The same results were found in a larger study (Beck, Morris & Beck, 1974) comparing 194 completed suicides to 231 attempted suicides. The study showed that the 19 patients who re-attempted suicide within a year after discharge had significantly higher scores on

items 1 than the 212 parasuicides who did not re-attempt suicide (Miecowski et al., 1989).

4.4.4. THE SUICIDE ATTITUDE SCALE.

Since the Suicide Intent Scale could clearly not be administered to the control group as a comparative measure for the parasuicides' S.I.S. scores, it was necessary to create another measure. The Suicide Attitude Scale (S.A.S.) was developed by the author as a filler questionnarie in order to provide the control subjects with a meaningful backdrop to filling in the Attributional Style Questionnaire and Ways of Coping Checklist. It is based on Beck, Schuyler and Herman's (1974) S.I.S. The author took each of the 15 items on the S.I.S. and cast them in hypothetical question form. The control subject was instructed to imagine what a potential suicidal adolescent thinks, feels and does before making an attempt. The subject was asked to choose one of three statements that best fits the intentions and wishes of the adolescent suicide attempter. The scale comprises 15 items each of which is rated on an ordinal scale of 0, 1, and 2 with a total score ranging from 0 to 30. The Suicide Attitude Scale cannot be regarded as a projective measure of the control subject's suicidal intentions and was not developed for this purpose. The limitations of the S.A.S. are clearly the lack of standardised measures for reliability and validity checks.

4.4.5. ATTRIBUTIONAL STYLE QUESTIONNAIRE.

The Attributional Style Questionnaire (A.S.Q.) (Semmel, von Baeyer, Abramson, Metalsky & Seligman, 1982) measures individual differences in the use of attributional dimensions. In particular it proposes that depressive symptoms are associated with an attributional style in which uncontrollable bad events are attributed to internal (versus external), stable (versus unstable), and global (versus specific) causes. The A.S.Q. measures individual differences in the use of these attributional dimensions.

The A.S.Q. comprises 12 hypothetical events (e.g: "you meet a friend who compliments you on your appearance; you have been looking for a job unsuccessfully for some time"). Half of the events are good, while half are bad. Additionally, half the events are interpersonal/affiliative while the

other half are achievement-related. This latter distinction facilitates cross-situational generality into the measure of this "style," as well as permitting the possibility that attributional style for affiliative events is different from attributional style for achievement events.

Following each of the 12 hypothetical events are parallel questions. The subject is asked to vividly imagine him/herself in each of the situations, then to decide on *one* major cause of the situation (if it happened to him/her), and to rate the cause along the three attributional dimensions viz: "Is the cause of the event due to something about you or to something about other people or circumstances ? In the future when the same situation arises, will the cause again be present? Is the cause something that influences just this particular situation or does it also influence other areas of your life ?" The subject is asked to rate the importance of the situation described.

4.4.6. SCORING

Questions are answered along a Likert Scale ranging from 1 (highest in external, unstable and specific attributions) to 7 (highest in internal, stable and global attributions). Thus the three attributional dimension rating scales associated with each event description are scored in the directions of increasing internality, stability and globality. Composite scores are created by summing the appropriate items and dividing the sum by the number of items in the composite.

The construction of the scale allows for the derivation of 20 different subscales based on different composites of items. At the finest level of analysis, one derives 12 subscales based on three items (e.g: rated stability of the attributions for the three good-outcome achievement-related events). Collapsing across the achievement-affiliation distinction, one obtains six subsales based on six items each (e.g: rated stability of the attributions for the six good-outcome events). Finally one can combine the internality, stability and globality scales into two composite attributional style scores, one for good and one for bad events, based on 18 items each. The scoring procedure has the effect of according each item equal status

since research shows that they tended to have comparable means and standard deviations.

4.4.7. INTERNAL CONSISTENCY:

The internal reliability of each subscale was estimated using Cronbach's (1951) coefficient alpha. Respectable alpha coefficients of 0.75 and 0.72 were obtained for the composite atributional style scales for good and bad events, respectively. The six item subscales reflecting separate attributional dimensions achieved a mean reliability of 0.54 (ranging from 0.44 to 0.69). At the finest level of analysis, three item subscales were derived. These subscales did not attain sufficient reliability to make them useful in future research (mean alpha = 0.38; range 0.21 to 0.53).

Ratings of internality, stability and globality for achievement events were significantly correlated with respective ratings for affiliation events. These correlations had a mean of 0.37 and range from 0.23 to 0.59 ($p < 0.05$). The correlations match or exceed the reliabilities of the respective subscales. Thus there was no evidence for discrimination of achievement and affiliative goal areas. While this failure to distinguish achievement from affiliation items may reflect an actual failure of discrimination by the subjects, affiliation may be viewed in economic and achievement terms and attributions about affiliation may overlap greatly with attributions about achievement. The researcher was counselled not to bother making a distinction between these items unless there was a specific interest in comparing correlations of achievement and affiliation subscales to external criteria that distinctly pertain to each of these goal areas.

4.4.8. THE VALIDITY OF THE ATTRIBUTIONAL STYLE QUESTIONNAIRE.

Peterson et al. (1982) note that while further work is needed that addresses the reliability and validity of the individual dimensions, a number of lines of evidence show the A.S.Q. to have considerable validity. The Learned Helplessness Reformulation, a style in which internal, stable and global atributions are offered for bad events is associated with depressive symptoms in students, adults, outpatients and inpatients. To a lesser degree the opposite

style for attributing good events is also associated with depression (Seligman et al., 1979). In these studies, depressive symptoms have been variously measured by self-report questionnaires and by formal diagnosis. The individual dimensions are consistently correlated with the extent of depressive symptomatology. Still to be investigated in a depressed population are the specific roles assigned the individual attributional dimensions by the helplessness reformulation. Further in a cross-lagged panel design, Golin et al., (1981) found that A.S.Q. scores predicted which college students would develop depressive symptoms one month later. A.S.Q. scores are associated with the development of depressive symptoms following poor performance by college students on a midterm examination. Further Semmmel et al. (1982) have shown that A.S.Q. scores correlate positively with actual attributions made by subjects for specific events such as rejection in a dating situation, poor performance at laboratory tasks and the occurrence of a stressful life event. When naturally occurring attributions were extracted from therapy transcripts and rated blindly along the three attributional dimensions, high correlations with the therapist's ratings of depression were observed. When subjects in a learned helplessness laboratory paradigm (Hiroto & Seligman, 1975) were divided into high and low groups based on stability scores for bad events, only those in the high group showed helplessness deficits three days after experience with uncontrollable events. This finding remains even when internality and globality scores are used as covariates. Thus the specific role hypothesised for the stability dimension is supported in a helplessness paradigm. Similarly, when learned helplessness laboratory subjects were divided into high and low groups on globality scores for bad events, only those in the high group showed helplessness deficits at a task highly dissimilar to the pretreatment task. This finding remains even when the other A.S.Q. scores are held constant.

Semmel et al. (1982) concluded that the A.S.Q. has considerable construct, criterion and content validity. It's reliability is satisfactory. While further work is needed that addresses the reliability and validity of the individual dimensions, on the whole, the A.S.Q. promises to be a useful means for assessing habitual tendencies in the attribution of causes.

4.4.9. THE WAYS OF COPING CHECKLIST.

The Ways of Coping Checklist (W.C.C.) comprises 68 items describing a broad range of cognitive and behavioural coping strategies that a person uses to deal with a stressful situation. The strategies were derived from the framework suggested by Lazarus and his collegues (Lazarus, 1966; Lazarus & Folkman, 1974) and from suggestions offered in the coping literature (Mechanic, 1962; Sidle, Moos, Adams & Crady, 1969). The instrument was constructed with the awareness that coping efforts are responsive to the specific situation in which they occur. While this is in keeping with the critical approach based upon the interactional model, it also incorporates an understanding of the role that sociopolitical and material factors play in constituting and producing the experience of stress and coping. Folkman and Lazarus (1980) classified the items of the W.C.C. into two broad categories: problem-focused and emotion-focused. The problem-focused category of coping refers to cognitive problem-solving efforts and behavioural strategies that alter or manage the source of the problem. The emotion-focused category consists of items that refer to cognitive and behavioural efforts at reducing or managing emotional distress. The premise that coping efforts are employed regardless of whether they work or not, ensures that coping is not confused with the outcome of coping strategies. The W.C.C. has been criticised for failing to clarify more specific coping strategies employed in stressful encounters (Eagle, 1987). Subsequent authors have identified more specific coping strategies within the emotion-focused category such as avoidance, detachment, self-blame, fatalism or fantasy. Specific strategies within the problem-focused category include seeking information, seeking social support and talking direct action.

Various authors (Ray et al., 1982; Vingerhoets & Flohr, 1984) have criticized the inability of the W.C.C. to assess more specific coping strategies. Vingerhoets & Flohr (1984) adapted the W.C.C. in order to try to assess more specific coping strategies, by developing various coping sub-scales. By subjecting the raw scores obtained on the WCC from a sample of 300, to a principal component analysis with varimax rotation, six factors were isolated with eigenvalues above 2.0. The factors were labelled: 1. wishful

thinking/escape 2. acceptance 3. problem focused/help-seeking 4. emotional withholding 5. self-blame and 6. growth. The six factors appeared to be well-interpretable and together they accounted for 44,7% of the variance in the Vingerhoets and Flohr study. The reliabilities of these scales were respectively 0,83 (wishful thinking/escape); 0,67 (acceptance); 0,64 (problem-focused/help-seeking); 0,59 (witholding); 0,71 (self-blame) and 0,72 (growth). The use of these scales resulted in a slightly shortened 60 item version of the W.C.C. The scales are briefly defined below.

Eagle (1987) found that one problem with the problem-focused/help-seeking scale was its assumption that there are two distinct coping styles. The first concerned coping strategies which involve direct cognitive or behavioural problem-solving efforts. The second concerns specific help-seeking activity. For this reason, Eagle (1987) developed a 4-item scale concerned only with Help-seeking efforts, to allow direct comparison on the help-seeking variable alone.

1) Wishful thinking-escape (16 items) This refers to emotion-focused coping strategies, which centre around cognitive efforts at escape from emotional distress, using mechanisms such as fantasy, humour and wishful thinking.
Examples are: Having fantasies or wishes about how things might turn out.
Day-dreaming or imagining a better time.
Joking about it.

2) Acceptance (13 items)
This refers to emotion-focused coping strategies which reflect acceptance of stress after it has emerged. The scale includes cognitive and emotional strategies for minimizing the impact of this stress, such as bargaining and compromise, patience, selective ignoring and substitute activity. The scale includes several items which are negatively correlated with 'acceptance' and thus scored in a reverse direction.
Examples are:
Accepting the next best thing to what you wanted.
Not letting it get to you, refusing to think too much about it.
Taking it out on other people (negative correlation).

3) Problem Focused/ Help-Seeking (13 items).

This refers to problem focused strategies which seek to alter or act on the source of the problem and emphasise problem-solving and direct action. The scale includes items which refer to information seeking, brain-storming, advice-seeking and concentrated behavioural planning and action.
Examples are:
Talking to someone to find out more about the problem.
Standing your ground and fighting for what you want.
Making a plan of action and following it.

4) Emotional Witholding (11 items).
This refers to emotion-focused strategies which seek to control anxiety through the inhibition of emotional distress. It implies an unwillingness to seek or accept emotional support from others (self-reliance) or to express feelings of vulnerability or dependency.
Examples are:
Maintaining your pride and keeping a stiff upper lip.
Keeping your feelings to yourself.
Asking someone you respect for advice and following it (negatively correlated.)

5) Self Blame (9 items)
This refers to emotion focused strategies which reflect a tendency to respond to stressful situations, by blaming or criticizing oneself, for one's inability to deal with these situations. The scale includes items which reflect a desire to be a more assertive, strong person, and thus implicitly reflects some measure of dissatisfaction with one's current coping abilities.
Examples are:
Realizing you bring the problem on yourself.
Wishing that you were a stronger person - more optimistic and forceful.

6) Growth (7 items)
This refers to emotion-focused strategies, including cognitive efforts which recognize the creative, growth possibilities that encounters with a stressful situation may provide. many of these strategies seem to aim to buffer the stressful impact of the problem by controlling the meaning of the problem.
Examples are:
Feeling you change or grow as a person in a good way.
Being inspired to do something creative.

Feeling you find new faith or some important truth about life.

Folkman and Lazarus (1980) in seeking to remain consistent with their situation-specific model of coping, asked subjects to answer the W.C.C. with a specific stressful event that was perhaps even still going on, so as to avoid the problem of memory and retrospective falsification. The original checklist was also binary in that subjects were simply asked to answer yes or no to determine if they used a specific coping strategy. In responding to suggestions made by Billings and Moos (1981), Eagle (1987) made further modifications to the W.C.C. To avoid constraining the magnitude of the relationship between coping responses and other measures, Eagle (1987) replaced the simple binary yes/no response to using a specific coping strategy, with a five point Likert scale ranging from (1) Never to (5) Always, thereby indicating the frequency with which a strategy is used. The version of the W.C.C. used by Eagle (1987) will be employed in this study. Subjects were asked to indicate the coping strategies that they employed most frequently to deal with problems or difficulties. Thus no attempt was made to isolate specific stressful events. Subjects were asked how they might generally cope across a wide range of situations. The reliabilities (Cronbach's alpha corrected for the number of times) of the scales used in the Eagle (1987) study were, respectively: 0,784 (wishful thinking/escape); 0,647 (acceptance); 0.392 (problem focused/help seeking); 0.603 (emotional witholding); 0.590 (self-blame); 0.680 (growth) and 0.698 (help-seeking).

4.5. SCORING:

The scores for the WCC scales are obtained by summing the scores for each item on a subscale and dividing this total by the number of items in the scale. No subscale is relative to another. The subscales scores are absolute and not relative to one another. This means that if a subject scored highly on the problem-focused scales, this does not mean that this score is relative to the emotion-focussed coping scores. Each scale yielded an integer.

The study does not employ the W.C.C. in accordance with Folkman and Lazarus' (1980) situation specific coping model. Subjects were asked how they respond generally to stressful

or difficult situations in their life not to any one specific situation. Subjects were asked how they would usually cope with problems either in the past, immediate past or present. A criticism of this approach is that it incurs the problem of memory and retrospective falsification. The value of using this approach is that adolescent's usual modes of coping with different situations are assessed. This accords the study more validity in determining whether adolescent parasuicides differ greatly and in what ways on means of coping. Another limitation of using the W.C.C. is the possiblity that there are other coping styles used by this population which are not included in this measure. Coping behaviours more culturally specific to the Indian and Coloured communitites may have been included. Possible examples of this include traditional religious practices and cultural rituals.

In conclusion, the Ways of Coping Checklist appears to be one of the most comprehensive coping measures currently available. It offers many advantages to those who wish to study coping. Firstly, it can readily be used for both intra-individual and comparative analyses. Secondly it allows the individual to characterize his or her coping thought and actions in a complex manner. Thirdly it is easy to use and administer and requires little training.

4.5.1. ADMINISTRATION:

Administration of the three questionnaires took two forms. Parasuicide subjects were individually interviewed by the author a day or two after making a suicide attempt. Each subject completed a biographical questionnaire (which was intended for later use in matching the control group) and the three questionnaires: Suicide Intent Scale; Attributional Style Questionnaire and Ways of Coping Checklist. The author remained present while questionnaires were filled out lest any further explanation was required. Control subjects were administered the biographical questionnaire and three questionnaires in groups. Female high school students used schooltime to complete the questionnaires together in a classroom. The author remained present to give instructions and answer any questions.

In both instances subjects were given verbal instructions regarding completion of the questionnaires. Confidentiality

of all personal details and answers was emphasised. Both parasuicide and control subjects were encouraged to take as much time as required in filling out questionnaires so as to ensure more honest answers and accurate results.

Following administration and completion of questionnaires subjects were encouraged to ask anything they wished concerning the study or the questionnaires. Parasuicide subjects were afforded the opportunity to talk about their experience in a single therapeutic session after completing the questionnaire. This was done so as not to obscure any effect therapy may have had on completion of the questionnaires. The control subjects were encouraged to ask anything they required during the course of completion of questionnaires. An explanation of findings in the form of a report was sent to each of the school principals.

4.5.2. ANALYSIS OF DATA:

The dependent variable, suicide intent, is assessed in two ways using the S.I.S. (Beck, Schuyler & Herman, 1974). A scale adapted from the S.I.S. by the author known as the Suicide Attitude Scale, served as a dependent variable for the control group. The latter was given to control subjects to assess their beliefs about suicide intent among adolescent parasuicides. It is not regarded as a projective measure of control subjects suicidal intentions. The independent variables are the coping style subscale scores measured by the W.C.C. developed by Folkman and Lazarus (1980), and the attributional style measured by the A.S.Q. (Semmel, Von Baeyer, Abramson, Metalsky & Seligman, 1982).

Data obtained from the study was subjected to a series of statistical analyses. These are outlined below.

(1) The matched (parasuicide and control) samples' biographical details and results of all three questionnaires were entered on the Editor programme of MS.DOS.

2) An analysis was performed providing a description of the ub-scale scores obtained on all the measures. The mean, standard deviations and range for each of the scores were obtained.

(3) Using the Statistical Package for the Social Sciences (SPSS. Inc.,1983), a T-Test of Significance was performed to establish the significance of each of the variables on the A.S.Q. and the W.C.C. The difference in level of significance for the parasuicide and control group was also computed.

(4) Finally, Multiple Linear Regression was employed with the data collected from the parasuicide group in order to establish the degree to which each of the variables on the A.S.Q. and W.C.C. predicted the Suicide Intent Score.

The next section will outline the results obtained in the study. The results will be presented according to the four points outlined above.

CHAPTER 5: RESULTS OF THE INVESTIGATION:

5.1. INTRODUCTION:

This chapter presents the results of the investigation in accordance with the hypotheses outlined in Chapter 4. The discussion of results follows in Chapter 6. In computing statistical analyses, the Statistical Package for the Social Sciences (SPSS Inc., 1983) was used.

The results from this section will be presented in the same order as the statistical analysis that was outlined in the previous section. This begins with a brief outline of the descriptive statistics concerning the demographic variables (i.e: race, age, sex and standard of education). Means and percentages of this data are presented. Descriptive statistics (means, standard deviations and range) for all variables on each of the three questionnaires are presented. Next an analysis of the difference between the parasuicide and control groups on all variables using the T-Test for matched pairs is presented. Following this, the relationship between the Suicide Intent Scale Scores, Attributional Style Questionnaire Scores and Coping Style Scores for the parasuicide group will be analysed using Multiple Linear Regression in order to establish the latter two variables' predictive power.

Non-parametric statistics were used to analyse the nominal data obtained from demographic information. The T-Test of Significance was used with the remaining data to establish the significance of each variable and the difference in significance between the parasuicide and control groups on the A.S.Q. and W.C.C. variables.

Parametric statistics were used to analyze the data since all the rating scales met the criteria for an interval scale of measurement. The rating scales thus met the criteria (outlined below) for parametric statistics.

(1) The observations were independent. The selection of any one case from the population for inclusion in the sample did not bias the chances of any other cases for inclusion. The score which was assigned to any case did not bias the score analyzed to any other case.

(2) Observations were drawn from normally distributed populations.

(3) The populations had the same variance.

(4) The variables involved were measured on an interval scale, so that it was possible to use the operations of arithmetic on the scores.

(5) The means of these normal populations were linear combinations of effects due to columns.
Having met all the above criteria for parametric statistical tests, the results obtained are more likely to be highly valid and most likely to reject the null hypothesis when it is false (Siegel, 1956)

5.2. MAIN RELATIONSHIPS INVESTIGATED:

The statistical analysis sought to investigate the following relationships:

1. To compare the difference on A.S.Q. scores between the parasuicide and control groups using the T-Test of significance (see Table 2).
2. To compare the difference on W.C.C. scores between the parasuicide and control groups using the T-Test of significance (see Table 2).
3. To investigate the predictive relationship between the S.I.S. scores, the A,S.Q. and W.C.C. scores using Multiple Linear Regression (See Table 4).

5.3. MAIN STATISTICAL TESTS USED.

A T-Test for paired independent samples was used to investigate the difference between the parasuicide and control group on all variables, and to determine the level of significance of these differences. Multiple Regression was used to establish first whether any of

the Attributional Style variables were significantly predictive of the Suicide Intent Scores for the parasuicide group, and secondly whether any of the Coping Style variables were significantly predictive of the Suicide Intent Scores for the parasuicide group.

5.4. DEMOGRAPHIC VARIABLES:

Mean scores and percentages for the four demographic variables are presented in Table 1.

TABLE 1 DEMOGRAPHIC VARIABLES. Abbreviations used are: Para, parasuicidal; Con, control; Educ, standard of education.

	No.		%	
	Para	Con.	Para	Con.
Race: Indian	19	19	76	76
Coloured	6	6	24	24
Age: 13 yr.	4	4	16	16
14 yr.	5	5	20	20
15 yr.	1	1	4	4
16 yr.	2	2	8	8
17 yr.	5	6	20	24
18 yr.	4	5	16	20
19 yr.	4	2	16	8
Sex: Female	25	25	100	100
Educ: Std.5	2	1	8	4
Std.6	6	3	24	12
Std.7	6	6	24	24
Std.8	3	1	12	4
Std.9	2	1	8	4
Std.10	6	13	24	52

5.5. DESCRIPTIVE STATISTICS FOR PARASUICIDE AND CONTROL GROUPS ON EACH OF THE QUESTIONNAIRES.

The following section provides statistics on the means, standard deviations and range of the scores for the Suicide Intent Scale, Suicide Attitude Scale, Attributional Style Questionnaire and the Ways of Coping Checklist for the parasuicide and control groups.

Having calculated the means for all scores on the questionnaires and compared these for the parasuicide and control groups, it remains to see whether this difference is significant or not. This section will examine the relationship between the parasuicide and control groups for the A.S.Q. and W.C.C. variables of the two questionnaires. Specifically the T-Test for matched pairs was used to analyse the difference between parasuicide and control groups on all variables from Suicide Intent to the Help-Seeking Subscales of the Ways of Coping Checklist. Table 4 gives a comprehensive outline of the differences between parasuicide and control groups specifying the means, standard deviation and the level of significance.

A T-Test of Significance for matched groups was computed to test for significant differences between the parasuicide and control group on the Attributional Style Scale and Coping Style Scores. A difference score was then obtained from the two scores of each matched pair. The T-Test assumes that these difference scores are normally and independently distributed in the population from which the sample was drawn, and requires that they be measured on at least an interval scale.

TABLE 2: THE LEVEL OF SIGNIFICANCE FOR THE DIFFERENCE IN MEANS FOR ALL VARIABLES ON THE THREE QUESTIONNAIRES.

VAR	MEAN DIFF.	STD DEV	T	P(t)
Int/Ext	0.03	1.045	0.17	0.85
St/Unst	0.06	1.27	0.26	0.79
Sp/Glob	0.21	1.81	-0.58	0.56
Im/Unim	0.05	1.21	0.23	0.81
Int/Ext(G)	-0.66	1.22	2.71	0.01*
St/Unst(G)	-0.25	1.61	-0.78	0.44
Sp/Glob(G)	-0.73	1.83	-2.01	0.05
Im/Unimp(G)	-0.11	1.37	-0.40	0.69
Int/Ext(B)	0.58	1.79	1.61	0.11
St/Unst(B)	0.26	2.06	0.63	0.53
Sp/Glob(B)	0.32	2.08	0.78	0.44
Im/Unimp(B)	0.13	2.15	0.31	0.75
Wishful thk	0.18	0.77	1.18	0.24
Acceptance	-0.38	0.59	3.23	0.00
Prob-focus	-0.21	0.65	-0.62	0.11
Emot with'	0.46	1.07	2.15	0.04
Self-blame	0.08	0.86	0.48	0.63
Growth	-0.38	0.80	-2.38	0.02
Help-seekng	-0.72	1.12	-3.19	0.00

The mean difference for each variable was calculated by subtracting the control score from the experimental score for each of the variables, and dividing this number by the number of scores in the sample i.e: 24.

TABLE 3: ATTRIBUTIONAL STYLE QUESTIONNAIRE VARIABLES.

VARIABLE 6(INTERNALITY/EXTERNALITY).

	PARA GRP.	CTL. GRP.
MEAN	5.06	5.02
STD.DEV.	0.86	0.52
RANGE.	3.25	2.00

The parasuicide group reveals a slightly higher mean for scores on the internality/externality subscale. However, the difference is fractional. The two groups do not differ significantly (T = 0.17; P = 0.85) in

their means for internal/external attributions for events.

VARIABLE 7 (STABLE/UNSTABLE).

	PARA GRP.	CTL GRP.
MEAN	4.52	4.46
STD.DEV.	1.09	0.75
RANGE	4.17	2.8

The parasuicide group reveals a slightly higher mean for scores on the stable/unstable subscale. However, the difference is minimal and is not significant (T = 0.26; P = 0.79). The two groups do not differ significantly in their means for stable/unstable attributions.

VARIABLE 8 (SPECIFIC/GLOBAL).

	PARA GRP.	CTL GRP.
MEAN	4.47	4.68
STD.DEV.	1.19	1.14
RANGE	4.9	4.42

The control group reveals a fractionally higher mean for scores on the specific/global subscale. There is no significant difference in the means (T= -0.58; P = 0.56). The two groups do not differ significantly in their means for specific/global attributions.

VARIABLE 9 (IMPORTANT/UNIMPORTANT).

	PARA GRP.	CTL GRP
MEAN	5.72	5.67
STD.DEV.	0.90	0.73
RANGE	3.7	2.66

The parasuicide group reveals a fractionally higher mean for scores on the important/unimportant subscale. However, the difference is not significant (T = 0.23; P = 0.81). This scale shows the highest mean overall of all scales for attributional style. It is the only scale that came close to being significantly correlated to the other scales on the W.C.C.

VARIABLE 10 (EXT/INT) FOR GOOD EVENTS

	PARA GRP.	CTL GRP
MEAN	5.42	6.08
STD. DEV.	1.13	0.68
RANGE	3.5	2.5

The control group evidences a higher mean for internality and externality on good events. The difference is significant (T = -2.71; P = 0.01).

VARIABLE 11 (STABLE/UNSTABLE) FOR GOOD EVENTS

	PARA GRP.	CTL GRP.
MEAN	5.04	5.30
STD.DEV.	1.14	0.94
RANGE	3.84	3.5

The control group evidences a higher mean for stable and unstable attributions on good events. However, the difference is not significant (T = -0.78; P = 0.44).

VARIABLE 12 (SPECIFIC/GLOBAL) FOR GOOD EVENTS.

	PARA GRP.	CTL GRP.
MEAN	4.81	5.55
STD.DEV.	1.30	1.01
RANGE	5	3.7

The control group evidences a higher mean for specific and global attributions on good events. The difference between the groups is significant (T = -2.01;P= 0.05).

VARIABLE 13 (IMPORTANT/UNIMPORTANT)FOR GOOD EVENTS.

	PARA GRP.	CTL GRP
MEAN	5.78	5.89
STD.DEV.	1.09	0.83
RANGE	4	2.7

The control group evidences a higher mean for important and unimportant attributions on good events. The difference is not significant (T =-0.40;P = 0.69).

VARIABLE 14 (EXTERNAL/INTERNAL) FOR BAD EVENTS.

	PARA GRP.	CTL GRP
MEAN	4.68	4.10
STD. DEV.	1.27	1.00
RANGE.	4	4

The parasuicide group evidences a higher mean for external and internal attributions on bad events. The difference is not significant (T = 1.61;P = 0.11).

VARIABLE 15 (STABLE/UNSTABLE) FOR BAD EVENTS.

	PARA GRP.	CTL.GRP
MEAN	3.97	3.71
STD.DEV.	1.25	1.41
RANGE.	5.33	6

The parasuicide group evidences a higher mean for stable and unstable attributions on bad events. The difference is not significant (T = 0.63;P = 0.53).

VARIABLE 16 (SPECIFIC/GLOBAL) FOR BAD EVENTS.

	PARA GRP.	CTL.GRP
MEAN	4.10	3.77
STD.DEV.	1.33	1.50
RANGE.	5.83	6.00

The parausicide group evidences a higher mean for specific and global attributions on bad events. The difference is not significant (T = 0.78; P = 0.44).

VARIABLE 17 (IMPRTANT/UNIMPORTANT) FOR BAD EVENTS.

	PARA GRP.	CTL.GRP
MEAN	5.58	5.44
STD. DEV.	1.22	1.32
RANGE	6	5

The parasuicide group evidences a higher mean for important/unimportant attributions on bad events. The difference is not significant (T = 0.31;P = 0.75).

TABLE 4: WAYS OF COPING CHECKLIST.

The data listed below provides a summary of the descriptive statistics for the scales on the Ways of Coping Checklist (W.C.C.). The two problem-focused coping scales include the Help Seeking/Problem Solving and the Help-Seeking scale. The rest are all emotion-focused coping scales. The reader is reminded that the coping scale scores are absolute and not relative. Thus high scores on one scale do not mean that low

scores are obtained on other scales. For this reason it is statistically meaningful to compare the difference between the two groups, but not within one group. Meaningful statistics can be found by comparing the parasuicides and controls on any one of the coping scales. However, it is not meaningful to compare the parasuicides' means for two or more coping scales, since each scale score is absolute and not relative to any other.

VARIABLE 18 (WISHFUL THINKING).

	PARA GRP.	CTL GRP
MEAN	3.25	3.06
STD.DEV.	0.55	0.61
RANGE.	2.87	2.25

The parasuicide group evidences higher wishful thinking scores than the control group although this difference is minimal. The parasuicide group relies first and foremost on the use of wishful thinking as a coping strategy. The difference between groups is not significant (T = 1.18; P = 0.24).

VARIABLE 19 (ACCEPTANCE).

	PARA GRP	CTL.GRP
MEAN	1.93	2.31
STD.DEV.	0.71	0.46
RANGE.	3.38	1.84

The control group evidences higher acceptance scores than the parasuicide group. This difference is larger than the differences between groups on many of the other subscales. Furthermore, the difference is significant (T = -3.23;P = 0.003).

VARIABLE 20 (PROBLEM FOCUSED).

	PARA GRP.	CTL.GRP
MEAN	2.57	2.78
STD.DEV.	0.58	0.42
RANGE	2.92	1.64

The control group evidences higher problem-focused coping scores than the parasuicide group. This difference is fractional, yet it is in accordance with a lot of the hypotheses raised i.e: that the control

subjects would evidence better problem-focused coping skills. The difference between groups is not significant (T = -0.625; P = 0.11)

VARIABLE 21 (EMOTIONAL WITHOLDING).

	PARA GRP.	CTL GRP
MEAN	0.83	0.37
STD.DEV.	0.61	0.87
RANGE	1.91	4.09

The parasuicide group evidences more emotional witholding than the control group. Although this difference is not radical, it is in accordance with the hypothesis that the parasuicide group would evidence less effective and adaptive coping strategies. The difference is not significant (T = 2.15; P = 0.04).

VARIABLE 22 (SELF BLAME).

	PARA GRP.	CTL.GRP
MEAN	2.89	2.81
STD. DEV.	0.68	0.66
RANGE	2.88	3.66

The parasuicide group evidences use of self-blame to a greater extent than the control group. Although this difference is not radical, it is in accordance with the hypothesis that parasuicide subjects would evidence less effective and adaptive coping strategies. The difference is not significant (T = 0.48; P = 0.63).

VARIABLE 23 (GROWTH).

	PARA GRP.	CTL.GRP
MEAN	3.03	3.41
STD.DEV.	0.75	0.62
RANGE	3.14	2.28

The control group evidences slightly higher mean scores on the growth subscale. Growth is the main means of coping with stressful circumstances among the control group subjects. Again the difference between the parasuicide and control subjects is small. This finding is in accordance with Hypothesis 3. The difference between the groups is significant

(T = -2.38; P = 0.025).

VARIABLE 24 (HELP-SEEKING).

	PARA GRP	CTL.GRP
MEAN	2.21	2.93
STD.DEV.	0.94	0.71
RANGE	4	3

The control subjects evidenced greater help-seeking than the parasuicidal group in dealing with stressful circumstances. This too is in accordance with the hypothesis that the control group would show more effective and adaptive coping measures. The difference between groups is significant (T = -3.19; P = 0.003).

5.6 THE RELATIONSHIP BETWEEN SUICIDE INTENT, ATTRIBUTIONAL STYLE AND COPING STYLE FOR PARASUICIDES

Multiple Regression is used to establish associations between two or more variables. The aim is not to establish causality (as in an experiment) but rather the possibility of a predictive relationship between two or more variables. Multiple Regression was used to determine whether there was a predictive relationship between the variables of Suicide Intent, Attributional Style and Ways of Coping. The following variables were entered in this order: Suicide intent score; internal/external; stable/unstable; specific/global; important/unimportant; internal/external for good events; stable/unstable for good events; specific/global for good events; important/unimportant for good events; internal/external for bad events; stable/unstable for bad events; specific/global for bad events; important/unimportant for bad events; wishful thinking; acceptance; problem-focused coping; emotional witholding; self-blame; growth; help-seeking.

Table 5 presents the results of the Multiple Regression. The results show that the predictors entered accounted for only 6% of the variance on parasuicide. There was therefore no significant

predictive relationship between the variables on A.S.Q. the W.C.C. and the S.I.S. Thus for the experimental group the suicide intent is not significantly related to any of the variables.

TABLE 5: MULTIPLE REGRESSION FOR THE PARASUICIDE GROUP.

DEP.VARIABLE: SUICIDE INTENT.

SOURCE	DF	SUM SQU.	MEAN SQU	F VALUE	P>F
MODEL	3	58.61	19.53	0.51	0.68
ERROR	21	812.025	38.667		
COR.TOTL	24	870.640			

R-SQUARED	C.V.	ROOT MSE	X5 MEAN
0.067	55.920	6.218	11.120

In summary the parasuicides and controls did not differ markedly on attributional style. Only one significant difference was found between the parasuicides and controls on the important/unimportant subscale. Although the differences were not significant the parasuicides showed greater use of negative emotion focused coping strategies while the control group showed more use of positive emotion focused coping strategies. The groups did not differ significantly on their use of problem-focused coping strategies. Neither attributional style or coping strategies were found to significantly predict level of suicide intent. Discussion of these findings will be undertaken in the next section.

CHAPTER 6: DISCUSSION

6.1 INTRODUCTION

This study set out to investigate the relationship between suicide intent, attributional style and coping preferences in Indian and Coloured female adolescent parasuicides in comparison with normal controls. The rationale for this study can be described on two levels. On a theoretical level, the study explores the possibility that attributional style as well as preferences in coping strategies influence the level of suicide intent in parasuicides, and that different choices in attributional style and coping strategies mediate life stressors sufficiently in a group of normal subjects, so that they do not resort to suicide attempts. In particular the study sought to investigate whether the parasuicides used more emotion-focused coping strategies and had a depressed attributional style (characterised by a tendency to make internal, stable and global attributions to events), and whether the control subjects used more problem-focused coping strategies and had an attributional style characterised by less internal, global and stable attributions for life events. At a more practical level the study hopes to illuminate the roles cognitive and coping styles occupy in parasuicide for the purposes of informing further research, especially preventative programmes with adolescents.

In general this study produced mixed results. In examining mean scores for the A.S.Q. it is evident that overall the highest scores were obtained by the controls on the subscale for internal/external attributions for good events. These attributions were highest in the direction of internality. The parasuicide group did not evidence attributional style scores that were markedly different to the control group. For overall attributional style (the first four attributional variables), the parasuicide group's scores were higher on only three subscales. However, these differences were fractional and were not statistically significant. This suggests that overall

there was not a significant difference in attributional style between the parasuicide and control group except on internal/external attributions for good events. The parasuicides' mean scores for attributions for both good and bad events were in the direction of internality, stability and globality as were those of the controls.

In examining the mean scores for the coping scales it is evident that the parasuicide group obtained higher scores on the wishful thinking, emotional witholding and self-blame ways of coping although none of these differences were statistically significant when subjected to the T-test. The control group obtained higher scores on the acceptance, problem-focused, growth and help-seeking scales although again none of these differences were statistically significant. It is interesting to note that the parasuicide group employs wishful thinking, emotional witholding and self-blame (all negative emotion-focused strategies) to a greater extent than the control group who employ more positive emotion-focused coping skills such as acceptance, growth and help-seeking. There is no statistical evidence to suggest that the control group employs greater use of problem-focused coping in comparison to the parasuicide group. The importance of the parasuicides less adaptive coping skills will be discussed in some depth later in this chapter. Finally the results from Multiple Regression show that suicide intent was not found to be in a significant relationship with any of the A.S.Q. or W.C.C. scale scores.

It is interesting that the parasuicides did not choose radically less healthy and adaptive means of coping in comparison to the control subjects, although their primary means of coping - wishful thinking - is decidedly less adaptive than the control group's tendency to employ growth as a main means of coping. Wishful-thinking, growth and self-blame figure prominently in both parasuicide and control group's means of coping while the control group relies on help-seeking to a greater extent than the parasuicide group. This finding will be discussed in some depth later in this chapter.

The discussion of these results will centre on three main themes: the first theme seeks to explain the range of suicide intent scores for parasuicides, as well as the low scores on many of the scales and how this is to be understood given their suicidal behaviour. The second theme explores the lack of significant correlation between the A.S.Q. scores and S.I.S. scores. Discussion also centres on how to account for the overall lack of significant difference between parasuicide and control scores on the A.S.Q. scales apart from the latters tendency to attribute good events to internal causes. The third theme explores the lack of any significant predictive relationship between the W.C.C. scale scores and the S.I.S. scores for the parasuicidal group. Lastly the differences in the parasuicides and control groups use of coping strategies will be discussed. Finally, a brief examination of some of the theoretical and methodological limitations of this study and their implications for future research are offered.

6.2 POSSIBLE FACTORS ACCOUNTING FOR THE RANGE IN SUICIDE INTENT SCORES

The range of S.I.S. scores suggests that parasuicide is not fundamentally about wanting to kill oneself or end one's life permanently. More than anything else the range of S.I.S. scores suggests that the fundamental indicator or predictor of who attempts suicide using an overdose and less lethal forms of suicide is not suicide intent. This supposition cannot necessarily be generalised to all forms of suicide attempting such as gassing, shooting, jumping etc., where the intent clearly is to die, or even to a male population who tend to make more lethal attempts on their lives. Perhaps it makes sense given the above that the parasuicide group would exhibit a range of S.I.S. scores. Following this it is suggested that the S.I.S. should only be used as a measure where serious suicidal risk is suspected, and not with parasuicides amongst whom the suicidal gesture says more about "a cry for help" than genuine suicide intent. It is suggested that the S.I.S. is not a useful measure of suicide intent even though it has been used in studies

both with adults and adolescents (Brent, 1987; Garfinkel et al. in Spirito et al., 1989). Some authors suggest a finer discrimination of suicide intent may prove more clinically useful. Looking beyond the wish to die such researchers identified more specific explanations for suicidal behaviour. Hawton, Cole, O'Grady and Osborn (1982) asked adolescents to choose a reason for their attempt (e.g: "to get relief from a terrible state of mind"; "to escape"; "to make people feel sorry for you"; and "to seek help"). The use of such cognitive descriptions may in the long-term be more useful in understanding why adolescents make suicide attempts. As regards the present study the use of finer discriminations combined with another measure (other than the Suicide Intent Scale) may have yielded interesting results about the intent of the parasuicides to kill themselves. Parasuicides seem to be a group of people who ultimately are grateful to still be alive. Their ambivalence regarding living or dying is usually overridden in the moment of action by a particular motive. Perhaps the parasuicide's behaviour should be seen less as wish to die or even wish to gain rescue but as "the wish to end the conscious experience of the here-and-now situation. The wish may take the shape of what Diekstra (1987) calls an interruption.

It is suggested that low value of S.I.S. scores is a reflection of denial on their part. Many authors have shown that "unlike adults, it is common for a significant percentage of adolescent suicide attempters to deny their overdoses had any suicidal implication" (cited in Spirito et al., 1989, p.338). Gisbert, Wheeler, Marsh and Davis (1985) found that 24% of their sample of 82% of adolescent suicide attempters seen on a general medical unit denied even having any suicidal intent, and 27% admitted they wanted to kill themselves at the time of the attempt but were no longer suicidal the day following the attempt (cited in Spirito et al., 1989). The argument that parasuicides don't have genuine suicide intent or that this is not a useful factor in understanding parasuicide is not supported by some authors. Stengel (1952) was one of the first to emphasise that the many differences between persons who kill themselves and

those who harm themselves sublethally. He considered, however, that demonstrably conscious intent of self-destruction was an essential component in both groups implying that those who survive are in fact failed suicides. A further reason for low S.I.S. scores includes the fact that they were taken after the suicide attempt was made. The literature shows that many parasuicides are relieved to be alive after the attempt. Diekstra (1987) expresses this: "in the choice of all human acts including suicide, varying and often even conflicting motives play a role, be it that at the supreme moment of action one of them plays the major part. But soon after the act, the relationship between motives may have changed even to such an extent that the individual wants to undo what has happened" (cited in Diekstra, 1987.p. 18). The parasuicides low suicide intent scores may in retrospect reflect a distorted perception of their initial intention to die because of a feeling of relief after the attempt.

Perhaps the range of suicide intent scores can be explained by the fact that parasuicide is multifaceted - it is comprised of many threads drawn together - all of which differ in degree of severity from individual to individual. The adolescent parasuicide may be troubled by many things in differing degrees - loss of career perspective, unemployment, school stress, family disruption. (Diekstra, 1987). Clearly there is an intricate web of contributory factors involved. These facets/components may be particularly strong in one individual and not in another. Shneidman (1985) emphasises that psychological pain is potentially unendurable in parasuicide - quite clearly this may differ in degree; the reduction of tension is sought in parasuicide; a re-ordering of life space - both of which may differ in degree of severity from person to person. Above all parasuicide is a communication of unhappiness with a plea for nurturance and rescue. From this statement it becomes clearer that parasuicide has little to do with suicide intent and more to do with need for nurturance and rescue. For the above-mentioned reasons it is arguable whether the S.I.S. measures accurately the fundamental nature of parasuicide.

6.3 POSSIBLE FACTORS ACCOUNTING FOR THE SCORES ON THE ATTRIBUTIONAL STYLE QUESTIONNAIRE.

For Attributional Style, results on Multiple Regression show that suicide intent was not significantly correlated with any of the A.S.Q. subscales. Thus there is no support for the hypothesis that among adolescent parasuicides a depressed attributional style (internal, global and stable attributions) may contribute to, let alone cause an increase in suicide intent. The decision to make an attempt on one's life among female adolescent parasuicides does not seem to depend on one's manner of attributing causes to events be they good or bad.

For this particular group of female adolescent parasuicides, the manner in which they attribute causes or reasons to events may have little if anything to do with the decision to attempt suicide. The present data suggests that cognitive processes may not be a fundamental determining factor in the process of developing suicidal ideation and acting on such thoughts. Following this, perhaps an examination of attributional style in parasuicides is a useless construct in understanding this particular behaviour. Certainly there seems to be little evidence from this study suggesting that attribution plays a role in influencing levels of suicide intent. Furthermore, explanation for why suicide intent was not significantly correlated with any A.S.Q. subscales lies in the fact that the A.S.Q. measures attributions of events having nothing at all to do with situations arising prior to a suicide attempt. Admittedly any parasuicide could be exposed to any of the situations outlined in the A.S.Q. before attempting suicide. However, to assume that any of these events convey anything useful about the kind of attributions parasuicides make is purely supposition. While the A.S.Q. may serve a broadly useful function in that it serves to capture an overall picture of the parasuicide's style of cognition, such cognitions may be too broad to reflect the parasuicide's cognitive style, and a finer and more specific discrimination of

cognitions is needed. Another possible explanation for the lack of correlation between the parasuicides' scores on the S.I.S. and A.S.Q. is that among parasuicides the decision to attempt suicide is often an impulsive one and may be uninfluenced by more stable/enduring ways of attributing causes to events employed by the individual in everyday life. Related to this is the finding in certain studies (Husain & Vandiver, 1984) that the behaviour of suicidal persons is much more determined by outside stimuli than by inner considerations, in short, they have little impulse-control. This could explain the considerable number of suicidal acts carried out impulsively - usually suicide attempts without fatal outcomes. Parasuicides may indeed manifest internal, stable and global ways of attributing causes to negative events in their lives. This is confirmed by the mean scores for bad events which are highest in the direction of internality, stability and globality for parasuicides. However, in a situation of emergency or hopelessness such as before a suicide attempt, the more usual or characteristic way of attributing events may be overwhelmed and the predominating feelings of hopelessness or existential despair takes over. The person becomes impulsive and resorts to a suicide attempt. Shneidman (1985) has referred to this as tunnelling of vision.

Although there was no direct evidence suggesting that the parasuicides' level of suicide intent is correlated with any particular style of attributing causes, the hypothesis that the parasuicide group would manifest more internal, global, and stable ways of attributing causes was in part fulfilled. Although the parasuicides did not differ significantly from the control group on any of the subscales except internal/external attributions for good events, their overall attributional style indicates more internality, stability and globality on attributions for bad events. This tendency to attribute bad events to themselves, to something stable and global in their world, is in accordance with Beck's (1976) negative cognitive triad theory of depression on which the A.S.Q. is partly based. Further, the higher scores for globality and stability for parasuicides may reflect

the finding that certain groups of suicidal persons are considerably more rigid or inflexible in their thinking than comparable groups of non-suicidal persons (Neuringer, 1976). Notably they appear to have trouble in finding flexible ways of dealing with divergent problem situations (Diekstra, 1987).

Researchers have not been able to conclude whether dysfunctional thinking is an antecedent and stable vulnerability to depression or whether it is a consequence of depression - particularly a scar left over from depression. Evidence suggests that dysfunctional thinking is state dependent. Depressive schemata believed to predispose to depression do not remain stable. Miranda et al. (1982) found persons vulnerable to depression report dysfunctional thinking but only when in a negative mood state. Dysfunctional beliefs remain latent until activated by stressful life events. Thus dysfunctional thinking may be a vulnerability factor for depression. Miranda's study showed that dysfunctional thinking is not stable in formerly depressed individuals and that it is elicited by stressful life events. Support for Miranda's hypothesis lies in the finding that parasuicides did not exhibit significant differences for internality, stability and globality on all events but only on bad events.

The finding that parasuicides manifest more global attributions for events, especially bad events lends further support to the fact that parasuicides make attributions in the same way that depressives do i.e: they manifest the negative cognitive triad. Furthermore the fact that the parasuicides reveal a slightly higher mean for scores on the importance/unimportance subscale suggests they take events more seriously than control subjects do. They take the consequences of events more seriously than controls.

Much experimental literature supports the role of specific attributional styles in the development and cause of depression. It shows a correlation between depressed mood and the tendency to attribute positive events to external, unstable and specific factors, and

negative events to internal, stable and global factors (Hammen & Krantz, 1976; Klein, Fencil-Morse & Seligman, 1976; Raps, Reinhard, Seligman, Peterson & Abramson, 1982; Rizley, 1978; Sweeney, Shaeffer & Golin, 1982). Depressed individuals attributed poor performance on a task to themselves more than anxious and nondepressed subjects (Sharp & Tennen, 1983). It seems that they too failed to take relevant attributional cues into account and accepted negative evaluations of others over personal evaluations. Depressed subjects fail to consider available attributional cues in forming their attributions and make self-blaming, schema-driven causal ascriptions in the face of contradictory evidence. In another study attributional style was found to be associated with a diagnosis of affective disorder especially dysthymia but is not specific to it (Heimberg, Klosko, Dodge, Shadick, Becker & Barlow; 1989). The hypothesis of the hopelessness theory that depressogenic attributional style confers a specific risk for a hopelessness subtype of depression was supported in a study by Alloy, Abramson and Lipman (1992). Attributionally vulnerable subjects experienced higher rates and a larger number of episodes of major depressive disorders than did attributionally invulnerable subjects. Perhaps the study that lends the most support to the findings cited in this thesis is that of Spirito et al., 1988, who found that adolescent suicide attempters displayed more frequent attributional errors as compared to psychiatric controls. In a comparative study of hospitalized psychiatric adolescents and adolescent suicide attempters, the latter viewed the negative aspects of their environment as being more stable than did the nonsuicidal sample. Cognitive distortions appeared more frequently in a subgroup of high risk suicide attempters. Although the study outlined in this thesis did not include any measure of hopelessness or depression, the studies outlined above show quite clearly that there is a case for the hypothesis that emotionally troubled persons exhibit a particular style of attributing causes to events.

6.4. ACCOUNTING FOR THE FINDINGS ON THE WAYS OF COPING CHECKLIST

Results from Multiple Regression indicate that for the parasuicide group suicide intent scores are not significantly correlated with either emotion-focused or problem-focused coping strategies. Since adolescent parasuicides are known to be a distressed group, it was hypothesised that they would evidence more emotion focused coping strategies in dealing with different events. Multiple Regression indicates no such relationship. When means on the different coping subscales are compared, it is evident that although no significant differences appear the parasuicides indicate a stronger preference for use of negative emotion-focused coping strategies: wishful thinking; self-blame and emotional witholding. The control group however, indicate a stronger preference for use of more positive emotion-focussed coping strategies, viz., acceptance, growth and help-seeking. No significant difference for the two groups on problem-focused coping was noted. How are we to account for this difference ?

The parausicides may make more use of emotional witholding as a coping strategy because they have been exposed to poor role models of coping in their original families. Perhaps parental or significant others' role modelling did not demonstrate sufficiently adequate or effective coping strategies. Pillay (1989) found that the family dynamics of a comparable group of parasuicides showed that there was a distinct deficiency in the adaptation, cohesion and stability of these families. Furthermore, Wood and Wassenaar (1989) found the families of parasuicides exhibited disturbed role functioning, poor problem-solving behaviour and lack of open communication. Parasuicides may manifest highly on emotional witholding because they are conditioned to low emotional expression or simply that they are not used to expressing their emotions openly to others in whom they can confide. They do not feel confident about communication of feeling or are simply not habituated to adequate emotional expression. This may in part be

due to the biological underpinnings of personality predisposing parasuicidal individuals to be more hesitant and cautious in trusting others, or more placid and passive in temperament thus leading to more avoidant patterns of behaviour. These temperamental or personality predispositions may also make them vulnerable to affective disorders such as anxiety and depression which in turn have a incapacitating effect on the individual's coping strategies. A depressed adolescent - however severe or mild his/her depression may be - is less likely to have adequate psychic energy at his/her disposal with which to employ adaptive coping strategies. Perhaps the control group is genetically less disposed to affective disorders (anxiety and depression) which interfere with cognitive functions and social functioning thus predisposing them to employ more adaptive potential in situations that draw emotional response but often do not allow the individual to do anything practical to change his/her situation. Their greater use of acceptance as a coping strategy suggests that this group has more psychic and emotional energy, since acceptance requires the individual to tolerate frustrations of immediate gratifications, and to exercise maturity in dealing with the delay that the search for goal achievement and growing up in adolescence requires. The control group's tendency to employ help-seeking suggests that they are not mistrustful of others and the assistance they might afford when compared to the parasuicide group. The tendency to more readily trust others may (like the parasuicide group) have origins in their genetic make-up i.e: they are less predisposed in temperament to develop personality traits subsumed to fall in the avoidant, schizoid or paranoid patterns of behaviour. Furthermore, their tendency to employ an active help-seeking strategy suggests they are exposed to more opportunities at home or school in which to seek help. The biographical interview conducted with parasuicides showed them to be a relatively isolated group of individuals struggling against many disadvantages such as broken families, divorce in the parents, and lack of emotional or economic support from either relatives or friends. Clearly such disadvanted family circumstances predispose an indivdual already

genetically vulnerable to affective disorders to strong existential despair. The tendency to resort to suicide as a means of eliciting help or stating their distress seems to them their only solution to their problems.

Finally the control groups greater use of growth as a coping strategy suggests these individuals are high achievers willing to struggle with challenging situations or tasks for the purposes of growth and personl evolvement. Undoubtedly they have been predisposed to a more rewarding environment that reinforces their achievements and spurs them on to develop active and mature coping strategies. This does not imply that the control group is by comparison with the parasuicide group more intelligent or gifted. Literature indicates that parasuicides and suicide attempters are not less intelligent than other psychiatric or normal persons. They may however have been exposed to non reinforcing environments where their achievements were not rewarded in the same positive fashion as the controls were. Social (poor parenting parents; low education among the parents) and economic factors (insufficient finances to educate their children or help them develp their talents) may account for the lack of postive reinforcement from their environment. Finally we cannot ignore the role that impulse control plays in influencing the choice of coping strategy. Various studies (Neuringer, 1976) have shown suicidal persons to be characterised by a lack of ability or a defective ability to reflect upon or think about the implications or consequences of their thoughts for a plan of action. The consequence of thie defective self-reflection is a strong action-directedness or acting out tendency :" act befre you think". The control group by contrast may be more mature in decided on a plan of action and then weighing up the pros and cons of their proposed action.

6.5 LIMITATIONS OF THE STUDY

A brief discussion will be presented around some of the methodological and conceptual problems inherent in this study. The implications of the problems for

future research will be presented separately in Section 6.6.

One of the main limitations of the study concerns the fact that the questionnaires used have not been validated in South Africa and are measures for a European population group. Although they have been used in a variety of cross-cultural settings they have not been standardised for these groups. This has obvious implications for the reliability and validity of the tests used.

A further limitation concerns the choice of instruments used. The complete range of S.I.S. scores and low scores for many parasuicides suggest this was not a useful measure of suicidality. A finer measure of hopelessness or suicidality is discussed in section 6.6. Furthermore the A.S.Q. may not have been the most useful questionnaire for measuring parasuicides' cognitions as it contains accounts of situations having very little in common with those that many parasuicides experience, and was standardized using a European and not an Asian sample.

The Suicide Attitude Scale (S.A.S.) while functioning as a control measure is not strictly speaking a comparable measure for the S.I.S. It has no standardised norms, validity or reliability checks.It cannot even be regarded as a projected measure of this group's suicide intent but may instead serve as a useful indication of what adolescents who are suicidal are likely to feel and do in the perception of a nonsuicidal group.

Another limitation of the study concerns the design. Firstly, the control group was not screened for previous suicide attempts prior to admission of the questionnaires. A number of extraneous factors in the administration of the A.S.Q. may have confounded results. The time at which the A.S.Q. was administered (i.e. after the suicide attempt) may be one constraining factor. A more accurate representation of attributional style as it relates to suicide ideation before the attempt might have yielded a very different set of results and correlations. Alternatively two

differently timed measures of attributional style may have indicated whether in fact the wish to kill self alters attributional style. Ideally a measure of attributional style before the attempt and after the attempt may yield important information about how attributional style changes under situations of ambivalence and low impulse control. Furthermore, the relief that most suicide attempters feel on acknowledging that they have survived an attempt, could lead most of them to change the way they experience events and possibly attribute causes in a more positive direction i.e: more external, specific and global causes. It is clear that the same criticism (outlined above) applies to the W.C.C. and that an alteration in design also includes pre-test and post-test examination of coping strategies.

Much literature suggests that the attitude of the researcher may also play an important role in determining the test-taking attitude of the subjects. The parasuicides may have felt self-conscious in the presence of the researcher and attempted to present a better image of themselves by downplaying a negative approach to stressful or difficult events and adjusting their view on coping to more positive preferences. The point here is not that parasuicides are deceptive but that given the context of the interview with a researcher interested in suicide, they may have felt tremendous shame or embarrassment and thus sought to alter their responses. The wish to appear favourable in the eyes of the researcher may have obscured responses in a more positive direction.

6.6 IMPLICATIONS FOR FUTURE RESEARCH

The limitations outlined above provide directions from which future research could benefit.

The use of more relevant instruments for measuring the cognitive-emotional experience of parasuicides are needed. It is suggested that if the three instruments continue to be used, that the research be standardised and norms for reliability and validity established. Alternatively an instrument that is capable of finer and more specific discrimination of cognitions may be

needed to fully assess the cognitive style of suicidal adolescents. If cognitive measures are to be used, they need to tap feelings of hopelessness, depression, despair and poor problem-solving, Clearly a finer discrimination of cognitions is needed to give clearer ideas about the characteristic cognitive style of potential adolescent parasuicides and the way in which this differs from normal subjects. Furthermore, it is suggested that the S.I.S. is not a useful measure of suicide intent even though it has been used in studies with both adolescents and adults. A finer discrimination of suicide intent may prove more clinically useful. This means identifying more specific explanations for suicidal behaviour, especially among adolescents. Hawton, Cole, O'Grady and Osborn (1982) asked adolescents to choose a reason for their attempt such as gaining relief from a terrible state of mind, escaping and making people feel sorry for you, seeking help. The use of such cognitive descriptions may in the long term be more useful in understanding why adolescents make suicide attempts. Future research should ideally choose more discriminating measures of cognitive emotional experience so that we may better discern the process adolescent parasuicides experience prior to the attempt.

Future research could possibly include the Beck Depression Inventory and Hopelessness Scale since the literature on suicide stresses the role of hopelessness in mediating the decision to attempt suicide and the literature on attribution stresses research done with depression. Inclusion of these factors into future studies would fill in the missing links in this thesis.

Future research could possibly follow-up those parasuicides who have made previous attempts in the form of a longitudinal study. The attributional style and coping style of these adolescent parasuicides could be measured at frequent intervals so that should they attempt suicide again the researcher would be in a position for examining the changes in attributional style and coping preferences both before and after an attempt.

6.7 CONCLUSION

Despite methodological limitations, the study gives evidence for a lack of relationship between the parasuicides' level of suicide intent and their particular style of attributing causes to difficult events. Similarly there was no statistical evidence suggesting a relationship between parasuicides level of suicide intent and their ways of coping with difficult life events. The rationale for this study was firstly to examine aspects of the relationship between suicide intent, attributional style and coping strategies with the express purpose of contributing meaningfully to school-based suicide prevention programmes. While the relationship between these factors may seem obvious, the relationship between attributional style and adolescent parasuicide has received no attention. Further, although research has investigated adolescent parasuicides' deficient problem solving abilities, very little has concentrated on coping style which is believed to be one of the factors determining why some adolescents faced with stressful situations ultimately resort to suicide attempts.

This study reviewed the literature on suicide, adolescent parasuicide, attributional style as well as coping styles. The various theories and models giving rise to the concept of attributional style as well as some of the recent research with this concept were outlined. Finally the review outlined the different approaches to stress and coping and acknowledged the conceptual advances made by Lazarus and colleagues' interactional model, delineating the complexity and multi-factorial nature of stress and coping. This model was adopted in this study. The particular view of attributional style as linked with parasuicide and use of this concept cannot be seen to directly follow on the research in the area of attribution and depression as this study had no measure of depression or hopelessness.

A highly interactive approach to research was undertaken in this study. Adolescent parasuicides at Northdale Hospital were individually approached to

give their own as well as parental consent to the research. Furthermore individual school students were approached after permission from each principal had been granted and their individual consent given. It was hypothesised that parasuicides would show greater emotion-focused coping and a depressed attributional style. This assumption was based on the belief that parasuicides are like many other distressed or emotionally disturbed individuals who feel powerless to change their circumstances. If their situation is more similar to technological or natural disaster with little option for change then emotion-focused coping efforts are thought to be more appropriate strategies to manage emotional distress.

The general conclusion drawn from this study is that adolescent parasuicides do not manifest a particular style of attributing causes to events or coping style that can be found to be statistically linked to suicide intent scores. While there was no significant relationship between these factors, parasuicides in comparison to controls, do show a tendency to more internal, stable and global attributions for bad events as well as a tendency to choose less adaptive emotion-focused coping strategies. This latter choice was only slightly larger than the choice for adaptive emotion-focused coping and problem focused coping. Given the findings in this study, certain conceptual and methodological limitations were outlined, such as the need for instruments that are more suited to an adolescent parasuicide population. Implications for future research were suggested.

LITERATURE CITED

Abramson, L.Y., Metalsky, G.I. & Alloy, L.B. (1989). Hopelessness depression : A theory-based subtype of depression. Psychological Review, 96, 358-372.

Abramson, L.Y., Seligman, M.E.P. & Teasdale, J. (1978). Learned helplessness in humans : Critique and reformulation. Journal of Abnormal Psychology, 87, 49-74.

Alloy, L.B., Clements, C. & Kolden, G. (1985). The cognitive diathesis-stress theories of depression : Therapeutic implications. In S. Reiss and R. Bootzin (Eds.). Theoretical Issues in Behaviour Therapy. New York: Academic Press.

Alloy, L.B., Lipman, A.J. & Abramson, L.Y. (1992). Attributional style as a vulnerability factor for depression: Validation by past history of mood disorders. Cognitive Therapy and Research, 16, 391-407.

Antonovsky, A. (1979). Health, Stress and Coping. San Francisco: Jossey-Bass.

Aptner, A., Bleich, A., Plutchick, R., Mendelsohn, & Tyano, S. (1988) Suicidal behaviour, depression, and conduct disorder in hospitalized adolescents. Journal of the American Academy of Child and Adolescent Psychiatry, 27, 696-699.

Asarnow, J.R., Carlson, G.A. & Guthrie, D. (1987). Coping strategies, self-perceptions, hopelessness and perceived family environments in depressed and suicidal children. Journal of Consulting and Clinical Psychology, 55, 361-366.

Bancroft, J., Skrimshire, A., Reynolds, F., Simkin, S. & Smith, J. (1975). Self-poisoning and self-injury in the Oxford area. British Journal of Social and Preventative Medicine, 29, 170-177.

Bandura, A. (1984). Recycling misconceptions of perceived self-efficacy. Cognitive Therapy and Research, 8, 231-255.

Barnett, P.A. & Gotlib, I.H. (1988). Psychosocial functioning and depression : Distinguishing among antecedents and consequences. Psychological Bulletin, 104, 97-126.

Barnett, P.A. & Gotlib, I.H. (1990). Cognitive vulnerability to depressive symptoms among men and women. Cognitive Therapy and Research, 14, 47-61.

Barraclough, B.N. (1987). Suicide: Clinical and Epidemiological Studies. London: Croom Helm.

Beck, A.T. (1967). Depression : Clinical, Experimental and Theoretical Aspects. New York: Harper and Row.

Beck, A.T. (1987). Cognitive models of depression. Journal of Cognitive Psychotherapy, 1, 5-37

Beck, A.T., Kovacs, M. & Weissman, A. (1979). Assessment of suicidal intention: The scale for suicide ideation. Journal of Consulting and Clinical Psychology, 47, 343-352.

Beck, A.T. & Lester, D. (1976). Components of suicidal intent in completed and attempted suicides. The Journal of Psychology, 92, 35-38.

Beck, R.W., Morris, J.B. & Beck, A.T. (1974). Cross-validation of the Suicide Intent Scale. Psychological Reports, 34, 445-446.

Beck, A.T., Resnick, H.L.P. & Lettieri, D.J. (1974). The Prediction of Suicide. Bowie, MD: Charles Press.

Beck, A.T., Rush, A.J., Shaw, B.F. & Emery, G. (1979). Cognitive Therapy of Depression. New York: Guilford Press.

Beck, A.T., Schuyler, D., & Herman, I. (1974). Development of suicidal intent scales. In A.T. Beck, H.L.P. Resnik, & D.J.Lettieri (Eds.). The Prediction of

Suicide. Bowie, MD: Charles Press.

Beck, A.T., Steer, R.A. & Brown, G. (1993). Dysfunctional attitudes and suicidal ideation in psychiatric outpatients. Suicide and Life-Threatening Behavior, 23, 11-20.

Beck, A.T., Steer, R.A., Kovacs, M. & Garrison, B. (1985). Hopelessness and eventual suicide: A 10-year prospective study of patients hospitalized with suicidal ideation. American Journal of Psychotherapy, 142, 559-563.

Beck, A.T., Weissman, M.A., Lester, D.L. & Trexler, L. (1976). Classification of suicidal behaviors. Archives of General Psychiatry, 33, 835-837.

Berman, A.L. & Cohen-Sandler, R. (1982). Suicide and the standard of care : Optimal vs. acceptable. Suicide and Life Threatening Behavior, 12, 114-122.

Berman, A.L. & Jobes, D.A. (1991). Adolescent Suicide : Assessment and Intervention. Washington, DC : American Psychological Association.

Berman, A.L. & Schwartz, R. (1990) Suicide attempts among adolescent drug users. American Journal of Diseases of Children, 144, 310-314

Bettes, B.A. & Walker, E. (1986). Symptoms associated with suicidal behavior in childhood and adolescence. Journal of Abnormal Child Psychology, 14, 591-604.

Bhamjee, (1984). The epidemiology of parasuicide at R.K. Khan Hospital. Unpublished M. Med. dissertation, Durban: University of Natal.

Bhana, A. (1981). A study of certain personality, demographic and related variables among Indian female attempted suicides. Unpublished M.A. Thesis, Durban: University of Durban-Westville.

Billings, A.G. & Moos, R.H. (1981). The role of coping responses in altering the stress of life events. Journal of Behavioral Medicine, 4, 139-157.

Billings, A.G. & Moos, R.H. (1984). Coping, stress and social resources among adults with unipolar depression. Journal of Personality and Social Psychology, 46, 877-891.

Blackburn, I.M. & Smyth, P. (1985). A test of cognitive vulnerability in individuals prone to depression. British Journal of Clinical Psychology, 24, 61-62.

Blumenthal, S.J. & Kupfer, D.J. (Eds). (1990). Suicide Over the Life Cycle. Risk Factors, Assessment and Treatment of Suicidal Patients. Washington, DC: American Psychiatric Press, Inc.

Bongar, B. (Ed.). (1992). Suicide: Guidelines for Assessment, Management, and Treatment. New York: Oxford University Press, Inc.

Bonner, R.L. & Rich, A. (1988). Negative life stress, social problem-solving self-appraisal, and hopelessness : Implications for suicide research. Cognitive Therapy and Research, 12, 549-556.

Boya, S. (1990). Coping Strategies and Personality in Suicidal and Non-Suicidal Indian Female Hospital Patients. Unpublished M.A. Thesis, Pietermaritzburg: University of Natal.

Brent, D.A. (1987). Correlates of medical lethality and suicide attempts among children and adolescents. Journal of the American Academy of Child and Adolescent Psychiatry, 26, 87-91.

Brewin, C. (1985). Depression and causal attributions : What is their relation? Psychological Bulletin, 98, 297-309.

Brewin, C.R. (1986). Internal attribution and self-esteem in depression: A theoretical note. Cognitive Therapy and Research, 10, 469-475.

Brown, G.W. & Harris, T. (1978). Social Origins of Depression. New York: Free Press.

Byrne, D. (1964). Repression-sensitization as a dimension of personality. In B.A. Maher (Ed.). Progress in Experimental Personality Research, Vol. 1, New York: Academic Press.

Carlson, G.A. (1983) Depression and suicidal behaviour in children and adolescents. Journal of the American Academy of Child Psychiatry, 21, 361-368.

Carlson, G.A., & Cantwell, D.P. (1982) Suicidal behaviour and depression in children and adolescents. Journal of the American Academy of Child Psychiatry, 21, 361-368.

Childer-Michael, C. & Funabiki, D. (1985). Depression, distortion and life stress : Extended findings. Cognitive Therapy and Research, 9, 659-666.

Clarke, C.F. (1958). Deliberate self-poisoning in adolescents. Archives of Disease in Childhood, 63, 1479-1483.

Clum, G.A., Patsiokas, A.T. & Luscomb, R.L. (1979). Empirically based comprehensive treatment program for parasuicides. Journal of Consulting and Clinical Psychology, 47, 937-945.

Cobb, S. (1976). Social support as a moderator of life stress. Psychosomatic Medicine, 38, 300-314.

Coelho, G.V., Hamburg, D.A. & Adams, J.E. (Eds.). (1974). Coping and Adaptation. New York: Basic Books.

Cohen, F. & Lazarus, R.S. (1979). Coping with stresses of illness. In L.S. Stone, F.Cohen & N.E. Adler (Eds.). Health Psychology. San Francisco: Jossey-Bass.

Cole, D.A. (1989). Psychopathology of adolescent suicide : Hopelessness, coping beliefs and depression. Journal of Abnormal Psychology, 98, 248-255.

Compas, B.E., Forsythe, C.J. & Wagner, B.M. (1988). Consistency and variability in causal attributions and coping with stress. Cognitive Therapy and Research, 12, 305-319.

Coyne, J.C., Aldwin, C. & Lazarus, R.S. (1981). Depression and coping in stressful episodes. Journal of Abnormal Psychology, 90, 439-447.

Coyne, J.C. & De Longis, A (1986). Going beyond social support : The role of social relationships in adaptation. Journal of Consulting and Clinical Psychology, 54, 454-460.

Coyne, J.C. & Gotlib, I.H.(1983) The role of cognitions in depression. A critical appraisal. Psychological Bulletin, 94, 472-505.

Crandall, J.E. & Lehman, R.E. (1977). Relationship of stressful life events to social interest, locus of control and psychological adjustment. Journal of Consulting and Clinical Psychology, 45, 1208.

Curran, D.K. (1987). Adolescent Suicidal Behavior, New York: Hemisphere Publishers.

Davis, H. (1979). Self-references and the encoding of personal information in depression. Cognitive Therapy and Research, 3, 97-110.

Davis, J. M. & Sandoval, J. (1991). Suicidal Youth: School-Based Intervention and Prevention. San Francisco: Jossey-Bass.

Diekstra, R.F.W. & Hawton, K. (Eds.). (1987). Suicide in Adolescence. Dordrecht: Martinus-Nijhoff Publishers.

Dixon, J.F.& Ahrens, A.H. (1992). Stress and attributional style as predictors of self-reported depression in children. Cognitive Therapy and Research, 16, 623-634.

Dixon, W.A., Heppner, P.P., Burnett, J.W. & Lips, B.J. (1993). Hopelessness and stress : Evidence for an interactive model of depression. Cognitive Therapy and Research, 17, 39-51.

Dobson, K.S. & Shaw, B.F. (1986). Cognitive assessment with major depressive disorders. Cognitive Therapy and Research, 10, 13-29.

Dobson, K.S.& Shaw, B.F. (1987). Specificity and stability of self-referent encoding in clinical depression. Journal of Abnormal Psychology, 96, 34-40.

Doerfler, L.A., Mullins, L.L., Griffin, N.J., Siegel, L.J. & Richards, C.S. (1984). Problem - solving deficits in depressed children, adolescents and adults. Cognitive Therapy and Research, 8, 489-500.

Dohr, K.V., Rush, A.J. & Bernstein, I.H. (1989). Cognitive biases and depression. Journal of Abnormal Psychology, 98, 263-267.

Dohrenwend, B.P. & Dohrenwend, B.P. (1978) Some issues in research on stressful life events. Journal of Mental and Nervous Disease, 166, 7-15.

Douglas, J.D. (1967). The Social Meanings of Suicide. Princeton, NY: Princeton University Press.

Dowd, E.T., Claiborn, C.D. & Milne, C.R. (1985). Anxiety, attributional style, and perceived coping ability. Cognitive Therapy and Research, 9, 575-582.

D'Zurilla, T. & Goldfried, M. (1971). Problem-solving and behaviour modification. Journal of Abnormal Psychology, 78, 107-126.

D'Zurilla, T.J.& Nezu, A. (1982). Social problem-solving in adults. In P.C. Kendall (Ed.). Advances in Cognitive-Behavioral Research and Therapy. Vol. 1. New York: Academic Press.

Eagle, A.S. (1987). Sex, Sex Role Orientation and the Self Report of Coping Preferences: An Exploratory Study. Unpublished M.A. thesis, Pietermaritzburg: University of Natal.

Eaves, G. & Rush, A.J. (1984). Cognitive patterns in symptomatic and remitted unipolar major depression. Journal of Abnormal Psychology, 93, 31-40.

Edwards, S.D., Cheetham, R.W.S., Naidoo, L.R. & Griffiths, J.A. (1981). Parasuicide in the Durban Indian community. South African Medical Journal, 60,

241-243.

Eisenberg, L. (1984). The epidemiology of suicide in adolescents. Pediatric Annals, 13, 47-54.

Ellis, T.E. & Ratliff, K.G. (1986). Cognitive characteristics of suicidal and nonsuicidal psychiatric inpatients. Cognitive Therapy and Research, 10, 625-634.

Farberow, N., McKelligott, J., Cohen, S. & Darbonne, A. (1970). Suicide among cardiovascular patients. In E.S. Shneidman, N.L. Farberow & R.E. Litman (Eds.). The Psychology of Suicide. New York: Science House.

Fennell, M.J.V. & Campbell, E.A. (1984). The cognition questionnaire : Specific thinking errors in depression. British Journal of Clinical Psychology, 23, 81-92.

Fernandes, R.M. & Kulik, J.C. (1981) A multilevel model of life satisfaction : Effects of individual characteristics and neighbourhood composition. American Sociological Review, 46, 840-850.

Firestone, L. & Seiden, R.H. (1987). Microsuicide and suicidal threats of everyday life. Psychotherapy, 74, 31-39.

Firestone, L. and Seiden, R.H. (1990). Suicide and the continuum of self-destructive behaviour. San Francisco: The Glendon Association.

Firestone, L. (1990). The inner voice and suicide. Psychotherapy, 23, 439-447.

Firestone, L. (1990). Psychological defenses against death and anxiety. San Francisco : The Glendon Association.

Fleishman, J.A. (1984). Personality characteristics and coping patterns. Journal of Health and Social Behaviour, 25, 229-244.

Franche, R.L. & Dobson, K. (1992). Self-criticism and interpersonal dependency as vulnerability factors to

depression. Cognitive Therapy and Research, 16, 419-435.

Fremouw, W., Callahan, T. & Kashden J. (1993). Adolescent suicide risk : Psychological, problem-solving, and environmental factors. Suicide and Life Threatening Behavior, 23, 46-54.

Friedman, r.C., Clarkin, J.F., & Corn, R. (1982). DSM III and affective pathology in hospitalized adolescents. Journal of Nervous and Mental Disorders, 170, 511-521

Friedman, R.C., Corn, R., Aaronoff, M.S., Hurt, S., & Clarkin, J.F. (1984). The seriously suicidal adolescent: affective and character pathology. In H.S. Sudak, A.B. Ford, & N.B. Rushford (Eds.) Suicide in the young (pp.209-226). Boston: John Wright PSG.

Folkman, S. (1984). Personal control, stress and coping : A theoretical analysis. Journal of Personality and Social Psychology, 46, 839-852.

Folkman, S. & Lazarus, R.S. (1980a). Personal control and stress and coping processes: A theoretical analysis. Journal of Personality and Social Psychology, 46, 839-852.

Folkman, S. & Lazarus, R.S. (1980b). An analysis of coping in a middle-aged community sample. Journal of Health and Social Behaviour, 21, 219-239

Folkman, S. & Lazarus, R.S. (1985). If it changes it must be a process : Study of emotion and coping during three stages of a college examination. Journal of Personality and Social Psychology, 48, 150-170

Folkman, S. & Lazarus, R.S. (1988). Coping as a mediator of emotion. Journal of Personality and Social Psychology, 54, 466-475.

Fox, N.L. & Weissman, M. (1975). Suicide attempts and drugs: Contradiction between method and intent. Social Psychiatry, 10, 31-38.

Gangat, A.E. Naidoo, L.R. & Wessels, W.H. (1987). Suicide in South African Indians. South African Medical Journal, 71, 169-171.

Garfinkel, B.D., Froese, A. & Hood, J. (1982). Suicide attempts in children and adolescents. American Journal of Psychiatry, 139, 1257-1261.

Garfinkel, B.D. & Golombek, H. (1983). Suicidal behaviour and adolescence. In H. Golombek & B.D. Garfinkel (Eds.). The Adolescent and Mood Disturbance. New York: International University Press.

Garmezy, N. (1985) Stress-resistant children : the search for protective factors. In J.E. Stevenson (Ed.). Recent research in developmental psychopathology. Journal of Child Psychology and Psychiatry Book Supplement 4, Oxford: Pergamon Press.

Garrity, T.F., Somes, G.W., & Marx, M.B. (1977) Personality factors in resistance to illness after recent life changes. Journal of Psychosomatic Research, 21, 23-32.

Gispert, M. Wheeler, K, Marsh, L., & Davis, M.S. (1985). Suicidal adolescents : Factors in evaluation. Adolescence, 20, 753-762.

Gotlib, I.H. & Beatty, M.E. (1985). Negative responses to depression : The role of attributional style. Cognitive Therapy and Research, 9, 91-103.

Goldacre, M. & Hawton, K. (1985) Repitition of self-poisoning and subsequent death in adolescents who take overdoses. British Journal of Psychiatry, 146, 395-398

Goldstein, M.J. (1973). Individual differences in response to stress. American Journal of Community Psychology, 1, 113-137.

Golin, S., Sweeney, P.D. & Shaeffer, D.E. (1981). The causality of causal attributions in depression : A cross-lagged panel correlational analysis. Journal of Abnormal Psychology, 90, 14-22

Goodstein, J. (1982). Cognitive Characteristics of Suicide Attempters. Unpublished PhD Dissertation. Los Angeles: Catholic University of America.

Haan, N. (1977). Coping and Defending. New York: Academic Press.

Hamilton, E.W. & Abramson, L.Y. (1983). Cognitive patterns and major depressive disorder : A longitudinal study in a hospital setting. Journal of Abnormal Psychology, 92, 173-184.

Hammen, C., Marks, T., Mayol, A. & deMayo, R. (1985). depressive self-schemas, life stress, and vulnerability to depression. Journal of Abnormal Psychology, 94, 308-319.

Hammen, C., Miklowitz, D. & Dyck, D. (1986). Stability and severity parameters of depressive self-schema responding. Journal of Social and Clinical Psychology, 4, 23-45.

Hankoff, L.D. & Einsidler, B. (Eds). (1979). Suicide : Theory and Clinical Aspects. Littleton, MS: PSG Publishing Company, Inc.

Harkavy-Friedman, J.M., Asnis, G.M., Boeck, M. & DiFiore, J. (1987) Prevalence of specific suicidal behaviours in a high school sample. American Journal of Psychiatry, 144, 1203-1206.

Harvey, D.M. (1981). Depression and attributional style : Interpretations of important personal events. Journal of Abnormal Psychology, 90, 134-142.

Harvey, J.H., Orbuch, T.L. & Weber, A.L. (Eds.). (1992). Attributions, Accounts and Close Relationships. New York: Springer-Verlag, Inc.

Hawton, K. (1986). Suicide and Attempted Suicide among Children and Adolescents. Beverley Hills, CA: Sage.

Hawton, K. & Catalan, J. (1987). Attempted Suicide : A

Practical Guide to its Nature and Management. Oxford: Oxford University Press.

Hawton, K. & Goldacre, M. (1982) Hospital admission for adverse effects of medicinal agents (mainly self-poisoning) among adolescents in the Oxford region. British Journal of Psychiatry, 141, 166-170.

Hawton, K., O'Grady, J., Osborne, M. & Cole, D. (1982). Adolescents who take overdoses: Their characteristics, problems and contacts with helping agencies. British Journal of Psychiatry, 140, 118-123.

Hayes, B. & Hesketh, B. (1989). Attribution theory, judgemental biases, and cognitive behaviour modification : Prospects and problems. Cognitive Therapy and Research, 13, 211-227.

Heimberg, R.G., Klosko, J.S., Dodge, C.S., Shadick, R., Becker, R.E. & Barlow, D.H. (1989). Anxiety disorders, depression, attributional style : A further test of the specificity of depressive attributions. Cognitive Therapy and Research, 13, 21-36.

Heimberg, R.G., Vermilyea, J.A., Dodge, C.S., Shadick, R., Becker, R.E. & Barlow, D.H. (1987). Attributional style, depression, and anxiety: An evaluation of the specificity of depressive attributions. Cognitive Therapy and Research, 11, 537-550.

Hendin, H. (1985). Youth suicide : A psychosocial perspective. Suicide and Life Threatening Behavior, 17, 151-165.

Heppner, P.P. & Anderson, W.P. (1985). The relationship between problem-solving, self-appraisal and psychological adjustment. Cognitive Therapy and Research, 9, 415-427.

Heppner, P.P., Baumgardner, A. & Jackson, J. (1985). Problem-solving self-appraisal, depression and attributional style: Are they related? Cognitive Therapy and Research, 9, 105-113.

Hill, K.J. & Larson, L.M. (1992). Attributional style in the reformulated learned helplessness model of depression : Cognitive processes and measurement implications. Cognitive Therapy and Research, 16, 83-94.

Hoffart, A. & Martinsen, E.W. (1990). Agoraphobia, depression, mental health locus of control, and attributional styles. Cognitive Therapy and Research, 14, 343-351.

Holahan, C.J. and Moos, R.H. (1986). Personality, coping and family resources in stress resistance : A longitudinal analysis. Journal of Personality and Social Psychology, 51, 389-395.

Holinger, P.C. (1987). Violent Deaths in the United States. New York: Guilford.

Hollon, S.D., Kendall, P.C. and Lumry, A. (1986). Specificity of depressotypic cognition in clinical depression. Journal of Abnormal Psychology, 95, 52-59

Johnson, J.G. (1992). Gender and mood as mediators of the relationship between attributional style, daily life, events, depressive symptoms, and hopelessness. Cognitive Therapy and Research, 16, 687-697.

Johnson, J.G. & Miller, S.M. (1990). Attributional, life-events, and affective predictors of onset of depression, anxiety, and negative attributional style. Cognitive Therapy and Research, 14, 417-430.

Kader, S.K. (1986). An Investigation into Family Functioning in Parasuicides among Indian South Africans in Durban. Unpublished M.Med. Thesis, Durban: University of Natal.

Kahn, A.V. (1987). Heterogeneity of suicidal adolescents. Journal of the American Academy of Child and Adolescent Psychiatry, 26, 92-96.

Kammer, D. (1983). Depression, attributional style and failure generalization. Cognitive Therapy and

Research, 7, 413-424.

Kaplan, H.B. (1983) Psychological distress in sociological context : Towards a general theory of psychological distress. In Kaplan, H.B. (Ed.). Psychosocial stress : Trends in Theory and Research. New York : Academic Press, Inc.

Kerfoot, M. (1980). The family context of adolescent suicidal behaviour. Journal of Adolescence, 3, 335-346.

Kerfoot, M. (1988). Deliberate self-poisoning in childhood and early adolescence. Journal of Child Psychology and Psychiatry, 29, 335-343.

Kessel, N. (1965). Self-poisoning. British Medical Journal, 2, 1265-1270.

Kessel, N. & McCulloch, W. (1966). Repeated acts of self-poisoning and self-injury. Proceedings of the Royal Society of Medicine, 59, 89-92.

Kienhorst, C.W.M., Wolters, W.H.G., Diekstra, R.F.W. & Otte, E. (1987). A study of the frequency of suicidal behaviour in children aged 5 to 14. Journal of Child Psychology and Psychiatry, 28, 153-165.

Klein, D.C., Fencil-Morse, E. & Seligman, M.E.P. (1976). Depression, learned helplessness, and the attribution of failure. Journal of Personality and Social Psychology, 85, 11-26.

Klein, D.M., Harding, K., Taylor, E.B. & Dickstein, S. (1988). Dependency and self-criticism in depression: Evaluation in a clinical population. Journal of Abnormal Psychology, 97, 399-404.

Kobasa, S.C., Maddi, S.R., Pucetti, M.C. & Zola, M.A. (1985). Effectiveness of hardiness, exercise, and social support as resources against illness. Journal of Psychosomatic Research, 29, 525-533.

Krames, L. & MacDonald, M.R. (1985). Distraction and depressive cognitions. Cognitive Therapy and

Research, 9, 561-573.

Krantz, S.& Hammen, C. (1979). Assessment of cognitive bias in depression. Journal of Abnormal Psychology, 50, 169-174.

Kreitman, N. (1977). Parasuicide. Chichester, England: Wiley.

Kreitman, N. & Platt, S.D. (Eds) (1989). Current Research on Suicide and Parasuicide. Edinburgh: Edinburgh University Press.

Kreitman, N. & Schreiber, M. (1979). Parasuicide in young Edinburgh women, 1968-1975. Psychological Medicine, 9, 469-579.

Kuiper, N.A. (1978). Depression and causal attributions for success and failure. Journal of Personality and Social Psychology, 36, 236-246.

Lazarus, R.S. (1966). Psychological Stress and the Coping Process. New York: McGraw-Hill.

Lazarus, R.S., Averill, J.R. & Opton, E.M. (1974) The Psychology of Coping. In G.V. Coehlo, D.A. Hamburg & J.E. Adams (Eds.). Coping and Adaptation. New York: Basic Books.

Lazarus, R.S., Coyne, J.C. & Folkman, S. (1982). Cognition, emotion, and motivation: The doctoring of Humpty-Dumpty. In R.W. J. Neufeld (Ed.). Psychosocial Stress and Psychopathology. New York: McGraw-Hill.

Leavey, R.L. (1983) Social support and psychological disorder : A review. Journal of Community Psychology, 11, 3-21.

Leff, J. & Vaughn, C. (Eds) (1985). Expressed Emotion in Families : Its Significance for Mental Illness. New York: Guilford Press.

Lester, D. (1972). Why people kill themselves. Springfield, IL: C.C. Thomas.

Lester, D. (1988). Youth suicide : A cross-cultural perspective. Adolescence, 23, 955-958.

Levenson, M. & Neuringer, C. (1971). Problem-solving behaviour in suicidal adolescents. Journal of Consulting and Clinical Psychology, 37, 433-436.

Lewinsohn, P.M., Steinmetz, J.L., Larson, D.W. & Franklin, J. (1981). Depression related cognition: Antecedents or consequence? Journal of Abnormal Psychology, 91, 213-219.

Lieberman, M.A. (1986). Social supports - The consequences of psychologizing : A commentary. Journal of Consulting and Clinical Psychology, 54, 461-465.

Linehan, M. (1981). A social-behavioural analysis of suicide and parasuicide : Implications for clinical assessment and treatment. In H. Glazer & J. Clarkin (Eds.). Depression : Behavioral and Directive Intervention Strategies. New York: Garland Press.

Linehan, M.M., Camper,P., Chiles, J.A., Strosahl, K. & Shearin, E. (1987). Interpersonal problem-solving and parasuicide. Cognitive Therapy and Research, 11, 1-12.

Linehan, M.M. & Nielsen, S.L. (1981). Assessment of suicide ideation and parasuicide: Hopelessness and social desirability. Journal of Consulting and Clinical Psychology, 49, 773-775.

Maltsberger, J.T. (1986). Suicide Risk: The Formulation of Clinical Judgement. New York: New York University Press.

Maris, R.W. (1971). Deviance as therapy: The paradox of the self-destructive female. Journal of Health & Social Behaviour, 12, 113-124.

Maris, R.W. (1981). Pathways to Suicide : A Survey of Self-destructive Behaviours. Baltimore: John Hopkins University Press

Maris, R. (Ed.). (1986). Biology of Suicide. New York: The Guilford Press.

Marks, P.A. and Haller, D.L. (1977). Now I lay me down for keeps : A study of adolescent suicide attempts. Journal of Clinical Psychology, 33, 390-400

Martin, M.V., Buckhalt, J.A., Pipes, R.B., Nivens, M.K. & Katz, J.A. (1987). The effect of noncontingent feedback on attributional style. Journal of Clinical and Consulting Psychology, 43, 456-462.

McCrae, R.R. & Costa, P.T. (1986). Personality, coping and coping effectiveness in an adult sample. Journal of Personality. 54, 385-405.

McCranie, E.W. & Riley, W.T. (1992). Hopelessness and persistence of depression in an inpatient sample. Cognitive Therapy and Research, 16, 699-708.

McGrath, R.E.V. & Burkhart, B.R. (1983) Measuring life stress : A comparison of the predictive validity of different scoring systems for the social readjustment rating scale. Journal of Clinical Psychology, 39, 573-581.

Mechanic, D. (1974). Discussion of research programmes on relations between stressfull life events and episodes of physical illness. In B.S. Dohrenwend & B.P. Dohrenwend (Eds.). Stressful Life Events : Their Nature and Effects. New York: Wiley.

Metalsky, G.I., Abramson, L.Y., Seligman, M.E.P., Semmel, A. & Peterson, C. (1982). Attributional styles and life events in the classroom : Vulnerability and invulnerability to depressive mood reactions. Journal of Personality and Social Psychology, 43, 612-617

Metalsky, G.I., Halberstadt, L.J. & Abramson, L.Y. (1987). Vulnerability to depressive mood reactions: Toward a more powerful test of the diathesis-stress and causal mediation components of the reformulated theory of depression. Journal of Personality and Social

Psychology, 52, 386-393.

Metalsky, G.I. Joiner, E., Hardin, T.S. & Abramson, L.Y. (1993). Depressive reactions to failure in a naturalistic setting : A test of the hopelessness and self-esteem theories of depression. Journal of Abnormal Psychology, 102, 101-109.

Meyer, N.E., Dyck, D.G. & Petrinack, R.J. (1989). Cognitive appraisal and attributional correlates of depressive symptoms in children. Journal of Abnormal Child Psychology, 17, 325-35.

Michelson, C.L. (1991) Trauma, Levels of Distress and Coping amongst Displacees in the Pietermaritzburg Area. Unpublished M.A. Thesis, Pietermaritzburg: University of Natal.

Mieczkowski, T.A., Sweeney, J.A. Haas, G.L., Junker, B.W., Brown, R.P. & Mann, J.J. (1993). Factor composition of the suicide intent scale. Suicide and Life-Threatening Behavior, 23, 37-45.

Mikulincer, M. (1989). Causal attribution, coping strategies and learned helplessness. Cognitive Therapy and Research, 20, 565-582.

Minaar, S., Schlebusch, L. & Levine, A. (1980). A current study of parasuicide. South African Medical Journal, 57, 204-207.

Miranda, J. (1992). Dysfunctional thinking is activated by stressful life events. Cognitive Therapy and Research, 16, 473-483.

Miranda, J. & Persons, J.B. (1992). Cognitive theories of vulnerability to depression : Reconciling negative evidence. Cognitive Therapy and Research, 16, 485-502.

Miranda, J., Persons, J.B. & Nix Byers, C.N. (1990). Endorsement of dysfunctional beliefs depends on current mood state. Journal of Abnormal Psychology, 99, 237-241.

Moos, R.H. (Ed.). (1977). Coping with Physical Illness. New York: Plenum Press.

Monat, A. & Lazarus, R.S. (Eds.). (1977). Stress & Coping: An Anthology. New York: Columbia University Press.

Morgan, H.G. (1979). Death Wishes? The Understanding and Management of Deliberate Self-Harm. Chichester, England: Wiley.

Morgan, H.G., Burns-Cox, C.J., Pocock, H. & Pottle, S. (1975). Deliberate self-harm : Clinical and socioeconomic characteristics of 368 patients. British Journal of Psychiatry, 126, 564-574.

Morris, L.W. & Engle, W.B. (1981). Assessing various coping strategies and their effects on test performance and anxiety. Journal of Clinical Psychology, 37, 165-171.

Motto, J.A. (1984). Suicide in male adolescents. In H.S. Sudak, A.B. Ford & N.B. Rushford (Eds), Suicide in the Young. Boston : John Wright PSG.

Mukherji, B.R., Abramson, L.Y. & Martin, D.J. (1982). Induced depressive mood and attributional patterns. Cognitive Therapy and Research, 6, 15-21.

Naidoo, P. (1993). A Survey of Suicides (1982-1992) among the White and Indian Populations within the Pietermaritzburg Region. Unpublished Honours Dissertation, Pietermaritzburg: University of Natal.

Nardini-Maillard, D. & Ladame, F.G. (1980). The results of a follow-up study of suicidal adolescents. Journal of Adolescence, 3, 253-260.

Needles, D.J. & Abramson, L.Y. (1990). Positive life events, attributional style, and hopefulness: Testing a model of recovery from depression. Journal of Abnormal Psychology, 99, 156-165.

Neuringer, C. (1964). Rigid thinking in suicidal individuals. Journal of Consulting Psychology, 28, 54-58.

Neuringer, C. & Lettieri, D.J. (1971) Cognition, attitude and affect in suicidal individuals. Suicide and Life-Threatening Behavior, 1, 106-124.

Nezu, A.M., Nezu, C.M., Saraydarian, L., Kalmar, K. & Ronan, G.F. (1986). Social problem-solving as a moderating variable between negative life stress and depressive symptoms. Cognitive Therapy and Research, 10, 489-498.

Nolen-Hoeksema, S., Morrow, J. & Friedrickson, B.L. (1993). Response styles and the duration of episodes of depressed mood. Journal of Abnormal Psychology, 1, 20-28.

Olinger, L.J., Kuiper, N.A. & Shaw, B.F. (1987). Dysfunctional attitudes and stressful life events: An interactive model of depression: Cognitive Therapy and Research, 11, 25-40.

Oliver, J.M. & Williams, G. (1979). The psychology of depression as revealed by attribution of causality in college students. Cognitive Therapy and Research, 3, 355-360.

Otto, U. (1972). Suicidal acts by children. Acta Psychiatrica Scandinavica, Suppl. 233

Patsiokas, A.T., Clum, G.A. & Luscomb, R.L. (1979). Cognitive characteristics of suicide attempters. Journal of Consulting and Clinical Psychology, 47, 478-484.

Patterson, J.M. & McCubbin H.I. (1987). Adolescent coping style and behaviours : Conceptualisation and measurement. Journal of Adolescence, 10, 163-186.

Pattison, E.M. & Khan, J. (1983) The deliberate self-harm syndrome. American Journal of Psychiatry, 140, 867-872

Paykel, E.S. (1989). Stress and life events. In Report of the Secretary's Task Force on Youth Suicide, 2. Risk factors for youth suicide . DHHS PUBL. No. (ADM) 89-1622, Washington, DC: U.S. Government Printing

Office.

Pearlin, L.I., Liebermann, M.A., Menaghan, E.G. & Mullan, J.T. (1981). The stress process. Journal of Health and Social Behavior, 22, 337-356.

Pearlin, L.I. & Schooler, C. (1978). The Structure of Coping. Journal of Health and Social Behavior, 19, 2-21.

Pearson, J.E. (1986). The definition and measurement of social support. Journal of Counselling and Development, 64, 390-395.

Peiser, D.W.J. & Oberholzer, D.J. (1987). Attempted suicide (parasuicide). Psychotherapeia, 14, 22-24.

Persons, J.B. & Miranda, J.(1992). Cognitive theories of vulnerability to depression: Reconciling negative evidence. Cognitive Therapy and Research, 16, 485-502.

Persons, J.B. & Rao, P.A. (1985). Longitudinal study of cognitions, life events, and depression in psychiatric patients. Journal of Abnormal Psychology, 94, 51-63.

Peterson, C. (1983). Clouds and silver linings : Depressive symptoms and causal attributions about ostensibly "Good" and "Bad" events. Cognitive Therapy and Research, 7, 575-578.

Peterson, C., Bettes, B.A. & Seligman, M.E.P. (1985). Depressive symptoms and unprompted causal attributions: Content analysis. Behavioural Research and Therapy, 23, 379-382.

Peterson, L.G., Peterson, M., O'Shanick, G.J. & Swann, A. (1985). Self-inflicted gunshot wounds : Lethality of method vs. intent. American Journal of Psychiatry, 142, 228-231.

Peterson, C., Semmel, A., von Baeyer, C., Abramson, L.Y., Metalsky, G.I. & Seligman, M.E.P. (1982). The attributional style questionnaire. Cognitive Therapy

and Research, 6, 287-300.

Petzel, S., & Cline, D. (1978). Adolescent suicide : Epidemiology and biological aspects. In S. Feinstein & P. Giovacchini (Eds.). Adolescent Psychiatry. Vol. 6. Chicago : University of Chicago Press.

Pfeffer, C. (1986). The Suicidal Child. New York: Guilford Press.

Pillay, A.L. (1987). Factors precipitating parasuicide among young South African Indians. Psychological Reports, 61, 545-546.

Pillay, A.L. (1988). Methods of self-destructive behaviour in adolescents and young adults. Psychological Reports, 63, 552-554.

Pillay, A.L. (1989). Family Dynamics and Adolescent Parasuicide: A South African Indian Sample. Unpublished PhD Dissertation. Pietermaritzburg: University of Natal.

Pillay, P. (1984) An investigation into those factors which may predispose to or precipitate suicidal behaviour among Indian school children. Unpublished M.S.W. Thesis. Durban: University of Durban-Westville

Pillay, A.L. & Pillay, Y.G. (1987). A study of deliberate self-harm at a Pietermaritzburg general hospital. South African Medical Journal, 72, 258-259

Pillay, A.L. & Wassenaar, D.R. (1991). Rescue expectations and hopelessness in adolescent parasuicides. Perceptual and Motor Skills, 72, 363-366.

Platt, J., Spivack, G. & Bloom, W. (1975). Manual for the Means-Ends Problem-Solving Procedure (MEPS): A Measure of Interpersonal Problem-Solving Skill. Philadelphia: Hahnemann Medical College and Hospital.

Plutchik, R., van Praag, H.M., & Conte, H.R. (1989) Correlates of suciide and violence risk. III. A two stage model of countervailing forces. Psychiatric Research, 28,215-225.

Power, M.J. (1987). The perception of life events in depressed inpatients and hospitalized controls. Journal of Clinical Psychology, 43, 206-211.

Rabkin, J.G. & Streuning, E.L. (1976). Life events, stress and illness. Science, 194, 1013-1020.

Raps, C.S., Peterson, C., Reinhard, K.E., Abramson, L.Y. & Seligman, M.E.P. (1982). Attributional style among depressed patients. Journal of Abnormal Psychology, 91, 102-108.

Ray, C., Lindop, J. & Gibson, S. (1982). The concept of coping. Psychological Medicine, 22, 385-395.

Reda, M.A., Carpiniello, B., Secchiarlooi, L., Blanco, S.Y. (1985). Thinking, depression, and antidepressants : Modified and unmodified depressive beliefs during treatment with amitriyptiline. Cognitive Therapy and Research, 9, 135-143.

Rich, C.L., Young, D., & Fowler, R.C. (1986). San Diego suicide study.I Young vs. old subjects. Archives of General Psychiatry, 43, 577-582.

Riggs, S., Alario, A., McHorney, C., DeChristopher, J., & Crombie, P. (1986). Abuse and health related risk-taking behaviours in high school students who have attempted suicide. Journal of Developmental-Behavioural Pediatrics, 7, 205-206.

Riskind, J.H. & Rholes, W.S. (1984) Cognitive accessibility and the capacity of cognitions to predict future depression: A theoretical note. Cognitive Therapy and Research, 8, 1-12.

Rizley, R. (1978). Depression and distortion in the attribution of causality. Journal of Abnormal Psychology, 87, 32-48.

Robins, C.J. & Block, P. (1988). Personal vulnerability, life events and depressive symptoms: A test of a specific interactional model. Journal of Personality and Social Psychology, 54, 847-852.

Robins, C.J. & Block, P. (1989). Cognitive theories of depression viewed from a diathesis-stress perspective : Evaluations of the moods of Beck and of Abramson, Seligman & Teasdale. Cognitive Therapy and Research, 13, 297-313.

Rodick, J.D., Henggeler, S.W. & Hanson, C.L. (1986). An evaluation of the family adaptability and cohesion evaluation scales and the Circumplex Model. Journal of Abnormal Child Psychology, 14, 77-87.

Rotheram-Borus, M.J., Trautman, P.D., Dopkins, S.C. & Shrout, P.E. (1990). Cognitive style and pleasant activities among female adolescent suicide attempters. Journal of Consulting and Clinical Psychology, 58, 554-561.

Rothwell, N. & Williams, J.M.G. (1983). Attributions and life events. British Journal of Clinical Psychology, 22, 139-140.

Rubenstein, J.H., Heeren, T., Houseman, D., Rubin, C., & Stechler, G. (1989) Suicidal behaviour in "normal" adolescents : Risk and protective factors. American Journal of Orthopsychiatry, 59, 59-71.

Rush, A.J., Weissenberger, J. & Eaves, G. (1986). Do thinking patterns predict depressive symptoms? Cognitive Therapy and Research, 10, 225-236.

Schlebusch, L. (1985). Self-destructive behaviour in adolescence. South African Medical Journal, 68, 792-795.

Schlebusch, L. & Wessels, W. (1988). Hopelessness and low intent in parasuicide. General Hospital Psychiatry, 10, 209-213.

Schotte D.E. & Clum, G.A. (1982). Suicide ideation in a college population: A test of a model. Journal of Consulting and Clinical Psychology, 50, 690-696.

Schotte, D.E. & Clum, G.A. (1987). Problem-solving skills in suicidal psychiatric patients. Journal of Consulting and Clinical Psychology, 55, 49-54.

Schotte, D.E., Cools, J. & Payvar, S. (1990). Problem-solving deficits in suicidal patients: Trait vulnerability or state phenomenon? Journal of Consulting and Clinical Psychology, 58, 562-564.

Schradle, S.B. & Dougher, N.J. (1985). Social support as a mediator of stress : Theoretical and empirical issues. Clinical Psychology Review, 5, 641-661.

Segal, Z.V. & Shaw, B.F. (1986). Cognition in depression: A reappraisal of Coyne and Gotlib's critique. Cognitive Therapy and Research, 10, 671-693.

Seligman, M.E.P., Abramson, L.Y., Semmel,A. & von Baeyer, C. (1979). Depressive attributional style. Journal of Abnormal Psychology, 88, 242-247.

Seligman, M.E.P. (1975). Helplessness: On depression, development and death. San Francisco: Freeman.

Seligman, M.E.P., Abramson, L.Y., Semmel, A.& von Baeyer, C. (1979). Depressive attributional style. Journal of Abnormal Psychology, 88, 242-247.

Shaffer, D. (1974). The epidemiology of teen suicide : An examination of risk factors. Journal of Clinical Psychiatry, 49, 36-39.

Shaffer, D., & Bacon, K. (1989). A critical review of preventive efforts in suicide, with particular reference to youth suicide. In Report of the Secretary's task force on youth suicide. Vol. 3. Prevention and interventions in youth suicide (pp.31-61). DHHS Publ. No. (ADM)89-1622. Wahsington, DC: U.S. Government Printing Office.

Shaffer, D., & Gould, M. (1987). A study of completed and attempted suicide in adolescents (grant no. MH 38198): progress report. Rockville, MD: NIMH.

Shaffer, D., Garland, A., Gould, M., Fisher, P. & Trautman, P. (1988). Preventing teenage suicide : A critical review. Journal of the American Academy of Child and Adolescent Psychiatry, 27, 675-687.

Shafii, M., Carrigan, S., Whittinghill, J.R. & Derrick, A. (1985). Psychological autopsy of completed suicide in children and adolescents. American Journal of Psychiatry, 142, 1061-1064

Sharp, J. & Tennen, H. (1983). Attributional bias in depression: The role of cue perception. Cognitive Therapy and Research, 7, 325-332.

Shneidman, E.S. (1981). Suicide thoughts and reflections: 1960-1980. A Special Issue of Suicide and Life-Threatening Behavior. New York: Human Sciences Press.

Shneidman, E.S. (1984). Aphorisms of suicide and some implications for psychotherapy. Amercian Journal of Psychotherapy, 38, 319-328.

Shneidman, E.S. (1985). Definition of Suicide. New York: Wiley.

Sidle, A., Moos, R., Adams, J. & Crady, P. (1969) Development of a coping scale : A preliminary study. Archives of General Psychiatry, 20, 266-232

Siegel, S. (1956). Nonparametric Statistics for the Behavioural Sciences. New York: McGraw-Hill Inc.

Smith, K., Conroy, R.W., & Ehler, B.D. (1984). Lethality of suicide attempt rating scale. Suicide and Life Threatening Behavior, 14. 215-242.

Smith, K. & Crawford, S. (1986). Suicidal behaviours among normal high school students. Suicide and Life-Threatening Behavior, 16, 313-325.

Spirito, A., Brown, L., Overholser, J. & Fritz, G. (1989). Attempted suicide in adolescence: A review and critique of the literature. Clinical Psychology Review, 9, 335-363.

Spirito, A., Overholser, J. & Stark, L.J. (1989). Common problems and coping strategies II: Findings with adolescent suicide attempters. Journal of Abnormal Child Psychology, 17, 213-221.

Spirito, A., Stark, L.J., Fristad, M., Hart, K. & Owens-Stively, J. (1987) Adolescent suicide attempters hospitalized on a general paediatrics floor. Journal of Pediatric Psychology, 12, 171-189

Stark, L.J., Spirito, A., Williams, C.A. & Guevremont, D.C. (1989). Common problems and coping strategies I : Findings with normal adolescents. Journal of Abnormal Child Psychology, 17, 203-211.

Stengel, E. (1952). Enquiries into attempted suicide. Proceedings of the Royal Society of Medicine, 45, 613-620.

Stengel, E. & Cook, N.G. (1958). Attempted Suicide: Its Social Significance and Effects. London: Chapman and Hall.

Stillion, J.M., McDowell, E.E., May, J.H. (1989). Suicide Across the Life Span: Premature Exits. New York: Hemisphere Publishing Company.

Thoits, P.A. (1986). Social support as coping assistance. Journal of Consulting and Clinical Psychology, 54, 416-423

Thomas Dowd, E., Claiborn, C.D. & Milne, C.R. (1985). Anxiety, attributional style, and perceived coping ability. Cognitive Therapy and Research, 9, 575-582.

Tishler, C.L., McKenry, P.C. & Morgan, K.C. (1981). Adolescent suicide attempts. Suicide and Life Threatening Behaviour. 11, 86-92

Tolsdorf, C.C. (1976). Social networks, support and coping :An exploratory study. Family Process, 15, 407-417.

Topol, P. & Reznikoff, N. (1982). Perceived peer and family relationships, hopelessness and locus of control as factors of adolescent suicide attempts. Suicide and Life Threatening Behaviour, 12, 141-150.

Vaillant, G.E. (Ed.) (1977). Adaptation of Life. Boston: Little.

Vingerhoets, A.J.J.M., Flohr, P.J.M. (1984). Type A behaviour and self-reports of coping preferences. British Journal of Medical Psychology, 57, 15-21.

Walker, W.L. (1980). Intentional self-injury in school age children. Journal of Adolescence, 3, 217-228.

Wassenaar, D.R. (1987). Brief strategic family therapy in the management of adolescent Indian parasuicide patients in the general hospital setting. South African Journal of Psychology, 17, 93-99.

Weiner, B. (1991). Metaphors in motivation and attribution. American Psychologist, 46, 921-930.

Williams, J,M.G. (1986). Differences in reasons for taking overdoses in high and low hopelessness. British Journal of Medical Psychology, 59, 269-277.

Withers, L.E. & Kaplan, D.W. (1987). Adolescents who attempt suicide : A retrospective clinical short review of hospitalized patients. Professional Psychology : Research and Practice, 18, 391-393.

Wood, N. (1987). Some Familial Characteristics of Indian Parasuicides. Unpublished M.A. Thesis, Pietermaritzburg: University of Natal.

Wood, N. & Wassenaar, D.R. (1989). Family characteristics of Indian parasuicide patients: A controlled study. South African Journal of Psychology, 19, 182-184.

Zarski, J.J. & Bubenezer, D.L. & West, J.D. (1986). Social interest, stress and the prediction of health status. Journal of Counselling and Development, 64, 386-389

Zautra, A.J. Guenther, R.T. & Chartier, G.M. (1985). Attribution for real and hypothetical events: Their relation to self-esteem and depression. Journal of Abnormal Psychology, 94, 530-540.

APPENDIX A

SUICIDE INTENT SCALE

OBJECTIVE CIRCUMSTANCES RELATED TO SUICIDE ATTEMPT:

1.ISOLATION

0 somebody present
1 somebody nearby or in contact (as by phone)
2 no one nearby or in contact.

2. TIMING

()Does not apply.
0 Timed so that intervention is probable.
1 Timed so that intervention is not likely.
2 Timed so that intervention is highly unlikely.

3. PRECAUTIONS AGAINST DISCOVERY AND/OR INTERVENTION

0 No Precautions.
1 Passive precautions, such as avoiding others but doing nothing to prevent their intervention (alone in room with unlocked door)
2 Active precautions (locked door)

4. ACTING TO GAIN HELP DURING/AFTER ATTEMPT

() Does not apply
0 Notified potential helper regarding attempt
1 Contacted but did not specifically notify potential helper regarding attempt.
2 Did not contact or notify potential helper.

5. FINAL ACTS IN ANTICIPATION OF DEATH

0 None
1 Patient thought about making or made some arrangements in anticipation of death
2 Definite plans made (changes in will, giving gifts, taking out insurances)

6. DEGREE OF PLANNING FOR SUICIDE ATTEMPT

0 No preparation
1 Minimal or moderate preparation
2 Extensive preparation

7. SUICIDE NOTE

0 Abscence of note
1 Note written, but torn up or not thought about
2 Presence of note.

8. OVERT COMMUNICATION OF INTENT BEFORE ACT

0 None
1 Equivocal communication
2 Unequivocal communication

9. PURPOSE OF ATTEMPT

0 Mainly to change or manipulate environment.
1 Components of "0" and "2"
2 Mainly to remove self from environment.

SELF REPORT

10. EXPECTATIONS REGARDING FATALITY OF ACT

0 Patient thought that death was unlikely or didn't think about it.
1 Patient thought that death was possible but not probable.
2 Patient thought that death was probable or certain.

11. CONCEPTIONS OF METHOD'S LETHALITY

0 Patient did less to himself than he thought would be lethal, or patient didn't think about it.
1 Patient wasn't sure or thought what he did might be lethal.
2 Act exceeded or equaled what patient thought was lethal.

12. SERIOUSNESS OF ATTEMPT

0 Patient did not consider act to be a serious attempt to end his life.
1 Patient was uncertain whether act was a serious attempt to end his life.
2 Patient considered act to be a serious attempt to end his life.

13. AMBIVALENCE TOWARD LIVING

0 Patient did not want to die.
1 Patient did not care whether he lived or died.
2 Patient wanted to die.

14. CONCEPTIONS OF REVERSIBILITY

0 Patient thought that death would be unlikely if he received medical attention.
1 Patient was uncertain whether death could ber averted by medical attention.
2 Patient was certain of death even if he received medical attention.

15. DEGREE OF PREMEDITATION

0 None - impulsive.
1 Suicide contemplated for three hours prior to attempt.

SUICIDE ATTITUDE SCALE:

The following is an assessment of attitudes about suicidal adolescents. Please choose one of the following statements that you think best fits the intentions/wishes of adolescent suicide attempters.

1. When an adolescent feels suicidal is s/he most likely to attempt suicide with:

a) Somebody present.
b) Somebody nearby or in contact (as by phone or in the next room)
c) No one nearby or in contact.

2. When an adolescent feels suicidal and acts upon these feelings, is s/he most likely to attempt suicide so that:

a) It is timed so that somebody will intervene.
b) It is timed so that the chances of someone intervening are not likely.
c) It is timed so that the chances of someone intervening are highly unlikely.

3. When an adolescent feels suicidal and acts upon these feelings, is s/he most likely to take:

a) No precautions.
b) Passive precautions, such as avoiding others but doing nothing to prevent their intervention (e.g. alone in a room with an unlocked door).
c) Active precautions (lock the door and windows),

4. When an adolescent feels suicidal and acts upon these feelings which of the following do you think they will do either before or after attempting suicide. They will:

a) Let a helper know about their feelings and their intention to attempt suicide.
b) Contact but not specifically notify a potential helper regarding the attempt.
c) Will not contact or notify a potential helper.

5. When an adolescent feels suicidal and acts upon these feelings which of the following do you think s/h is most likely to do in anticipation of death:

a) Do nothing.
b) Think about making some arrangements in anticipation of death.
c) Make definite plans (such as changes in will, giving gifts, taking out insurance).

6) When an adolescent feels suicidal and acts upon these feelings which of the foolowing do you think s/he is most likely to do by way of planning for this suicide attempt?

a) Make no preparation.
b) Make minimal or moderate preparation.
c) Make extensive preparations.

7) When an adolescent feels suicidal and acts upon these feelings which of the following do you think s/he is most likely to do?

a) Will not write a note.
b) Will write a note but then tear it up or not think about it again.
c) Will write a note.

8) When an adolescent feels suicidal, which of the following do you think s/he is most likely to do by way of communicating intent before the act?

a) Nothing (person would not tell anyone or give any hints.)
b) Give an equivocal (unclear) message. This message could be construed in a number of ways.
c) Give an unequivocal (clear) message.

9) When an adolescent feels suicidal and desires to act upon these feelings which of the following statements do you think is most likely to fit for their intentions in making the attempt?

a) Mainly wants to change or manipulate the environment.
b) Mainly wants to remove him/herself from the environment.
c) Components of above two statements.

10) When an adolescent feels suicidal and desires to act upon these feelings which of the foolowing do you think s/he is most likely to believe about the consequences of the act?

He/she is most likely to think that:
a) Death is unlikely (or does not think about it.)
b) Death is possible but not probable.
c) Death is probable or certain.

11) When an adolescent feels suicidal and acts upon these feelings which of the following do you think s/he is most likely to do:

a) s/he would do less to him/herself than he/she thinks would be lethal or will not think about this.
b) s/he would not be sure or think that what you do might be lethal.
c) s/he believed that the act would exceed or equal what s/he thinks would be lethal.

12) When an adolescent feels suicidal and acts upon these feelings which of the following do you think s/he is most likely to believe about the seriousness of the attempt.

a) Considers that act to be a serious attempt to end his/her life.
b) Would be uncertain whether the act was a serious attempt to end his/her life.
c) Would consider that act to be a serious attempt to end his/her life.

13) When an adolescent feels suicidal and acts upon these feelings which of the following do you think s/he is most likely to want i.e. which is most likely to fit his/her true intentions?

a) Does not want to die.
b) Does not care whether s/he lives or dies.
c) Does want to die.

14) When an adolescent feels suicidal and acts upon these feelings which of the following do you think s/he is most likely to believe about the act?

a) Thought that death would be unlikely if medical attention was received.
b) Thought that death could be averted by medical attention.
c) Thought that death was certain even if medical attention was received.

15) When an adolescent feels suicidal and desires to act upon these feelings which of the following do you think is most likely to fit the perception of how things happen?

a) The act is impulsive - it is not premeditated.
b) Suicide is contemplated for three hours prior to the attempt.

16) Have you ever thought about committing suicide? Yes/No.

When was this?_____

APPENDIX B

ATTRIBUTIONAL STYLE QUESTIONNAIRE:

Please try to vividly imagine yourself in the situations that follow. If such a situation happened to you, what would you feel would have caused it? While events may have many causes, we want you to pick only one - the major cause - if this event happened to you. Please write this cause in the blank provided after each event. Next we want you to answer some questions about the cause and a final question about the situation. The Situations are as follows.

1) You meet a friend who compliments you on your appearance.

2) You have been looking for a job unsuccessfully for some time.

3) You become very rich.

4) A friend comes to you with a problem and you don't try to help.

5) You give an important talk in front of a group and the audience reacts negatively.

6) You do a project that is highly praised.

7) You meet a friend who acts hostilely toward you.

8) You can't get all the work done that others expect of you.

9) Your spouse (boyfriend/girlfriend) has been treating you more lovingly.

10) You apply for a position that you want very badly (e.g. important job, graduate school admission) and you get it.

11) You go out on a date and it goes badly.

12) You get a raise.

For each of these events, write down the one major cause of the event.

1. IS THE CAUSE OF YOUR UNSUCCESSFUL JOB SEARCH DUE TO SOMETHING ABOUT YOU OR TO SOMETHING ABOUT OTHER PEOPLE OR CIRCUMSTANCES? (Circle one number)

Totally due to others or circumstances. 1 2 3 4 5 6 7 Totally due to me

2. IN THE FUTURE WHEN LOOKING FOR A JOB, WILL THIS CAUSE AGAIN BE PRESENT ? (circle one number)

Will never again be present 1 2 3 4 5 6 7 Will always be present

3. IS THE CAUSE SOMETHING THAT JUST INFLUENCES LOOKING FOR A JOB OR DOES IT ALSO INFLUENCE OTHER AREAS OF YOUR LIFE ? (circle one number)

Influences just this situation 1 2 3 4 5 6 7 Influences all situations

4.HOW IMPORTANT WOULD THIS SITUATION BE IF IT HAPPENED TO YOU ? (Circle one number).

Not at all important 1 2 3 4 5 6 7 Extremely important

For each of the twelve situations outlined above, circle the number on the Likert scale that best applies for each of the questions outlined above.

APPENDIX C

WAYS OF COPING CHECKLIST

The following two pages consist of a number of statements concerning the manner in which people may deal with problems or difficulties. Please indicate on the five point reponse scale how frequently you normally or typically use the following approaches to deal with problems.

A	B	C	D	E
NEVER	VERY SELDOM.	OFTEN	USUALLY	ALWAYS

Please ensure that the number on the question paper corresponds with the number on the answer sheet.

1. Waiting to see what will happen.
2. Just taking things one step at a time.
3. Standing your ground and fighting for what you want.
4. Talking to someone who can do something concrete about the problem.
5. Blaming yourself.
6. Feeling you change or grow as a person in a good way.
7. Criticising or lecturing yourself.
8. Avoiding being with people in general.
9. Asking someone you respect for advice and following it.
10. Getting away from it for a while, trying to rest or take a vacation.
11. Getting the person responsible to change his or her mind.
12. Telling yourself things that make you feel better.
13 Wishing you were a stronger person, more optimistic and forceful.
14. Concentrating on something good that can come out of the whole thing.
15. Maintaining your pride and keeping a stiff upper lip.
16. Making light out of the situation, refusing to get too serious about it.
17. Accepting understanding and sympathy from someone.
18. Coming up with a couple of different solutions to the problem.
19. Rediscovering what is important in life.
20. Feeling bad that you cannot avoid the problem.
21. Wishing that you could change the way you feel.
22. Not letting it get to you, refusing to think too much

about it.
23.Talking to someone to find out more about the situation.
24 Hoping a miracle will happen.
25.Wishing that you could change what has happened.
26.Thinking about fantastic or unreal things that make you feel better.
27.Bargaining or compromising to get something positive from the situation.
28.Changing something so things will turn out alright.
29.Feeling that time will make a differnece, the only thing to do is wait.
30.Feeling you came out of the experience better than when you went in.
31.Accepting your strong feelings but trying not to let them interfere with other things too much.
32.Trying to make up for some of the bad things that happened.
33.Feeling bad that you cannot avoid the problem.
34.Trying to make yourself feel better by eating, drinking, smoking, taking medication etc.
35.Realising that you bring the problem on yourself.
36.Letting your feelings out somehow.
37.Doing something totally new that you never would do if this had not happened.
38.Looking for the silver lining, trying to look at the bright side of things.
39.Just concentrating on what you have to do next - the next step.
40.Keeping others from knowing how bad things are.
41.Going over the problem again and again in your mind to try to understand it.
42.Feeling you find new faith or some important truth in life.
43.Taking a big chance or doing something very risky.
44.Daydreaming or imagining a better time.
45.Getting mad at the people or things that caused the problem.
46.Turning to work or substitute activity to take your mind off things.
47.Accepting the next best thing to what you wanted.
48.Being inspired to doing something creative.
49.Talking to someone about how you are feeling.
50.Sleeping more than usual.
51.Knowing what has to be done; doubling your efforts and trying harder to make things work.
52.Taking it out on other people.

53.Getting professional help and doing what they recommend.
54.Drawing on you past experiences.
55.Making a plan of action and following it.
56.Refusing to believe that it has happened, Keeping your feelings to yourself.
57.Joking about it.
58.Having fantasies or wishes about how things might turn out.
59.Trying to forget the whole thing.
60 Keeping your feelings to yourself.
61.Try to see the positive side.
62.Try to step back from the situation and be more objective.
63.Pray for guidance or strength.
64.Take things one step at a time.
65.Consider several alternatives for handling a problem.
66.Draw on your past experience, you were in a similar situation before.
67.Try to find out more about the situation.
68.Talk with professional people about the situation.
69.Take some positive action.
70.Talk with partner or other relatives about the problem.
71.Talk with friend about the situation.
72.Exercise more.
73.Prepare for the worst.
74.Sometimes take it out on other people when you feel angry or depressed.

WAYS OF COPING SUBSCALES.

WISHFUL THINKING/ESCAPE.

1. Waiting to see what will happen.
10. Getting away from it for a while, trying to rest or take a vacation.
12. Telling yourself things that make you feel better.
13. Wishing you were a stronger person.
16. Making light out of the situation, refusing to get too serious about it.
21. Wishing you could change the way you feel.
24. Hoping a miracle will happen.
29. Feeling that time will make a difference, the only thing to do is wait.
33. Feeling bad that you cannot avoid the problem.
34. Trying to make yourself feel better by eating, drinking, smoking, or taking medication etc.
44. Daydreaming or imagining a better time.
50 Sleeping more than usual.
56. Refusing to believe that it has happened. Kepping your feelings to yourself.
57. Joking about it.
58. Having fantasies or wishes about how things might turn out.
59. Trying to forget the whole thing.

ACCEPTANCE

1. Waiting to see what will happen.
2. Just taking things one step at a time.
8. Avoiding being with people in general.
14. Concentrating on something good that can come out of the whole thing.
17. Accepting understanding and sympathy from someone.
22. Not letting it get to you, refusing to think too much about it.
27. Bargaining or compromising to get something positive from the situation.
32. Trying to make up for some of the bad things that happened.
38. Looking for the silver lining, trying to liik at the bright side of things.
43. Taking a big chance or doing something very risky.

46. Turning to work or substitute activity to take your mind off things.
47. Accepting the next best thing to what you wanted.
52. Taking it out on other people.

PROBLEM-FOCUSED/HELP-SEEKING

3. Standing your ground and fighting for what you want.
4. Talking to someone who can do something concrete about the problem.
9. Asking someone you respect for advice and following it.
11. Getting the person responsible to change his/her mind.
18. Coming up with a couple of differnet solutions to the problem.
23. Talking to someone to find out more about the situation.
28. Changing something so things will turn out alright.
29. Feeling that time will make a difference, the only thing to do is wait.
39. Just concentrating on what you have to do next - the next step.
45. Getting mad at the people or things that caused the problem.
51. Knowing what has to be done; doubling your efforts and trying harder to make things work.
53. Getting professional help and doing what they recommend.
54. Drawing on your past experiences.
55. Making a plan of action and following it.

EMOTIONAL WITHHOLDING

4. Talking to someone who can do something concrete about the problem.
8. Avoiding being with people in general.
9. Asking someone you respect for advice and following it.
15. Maintaining your pride and keeping the stiff upper lip.
22. Not letting it get to you, refusing to think too much about it.
23. Talking to someone to find out more about the situation.
36. Letting your feelings out somehow.
40. Keeping others from knowing how bad things are.
49. Talking to someone about how you are feeling.
59. Trying to forget the whole thing.
60. Keeping your feelings to yourself.

SELF BLAME

5. Blaming yourself.
7. Criticising or lecturing yourself.
13. Wishing you were a stronger person, more optimistic and forceful.
16. Making light out of the situation, refusing to get too serious about it.
25. Wishing you could change what has happened.
31. Accepting your strong feelings but trying not to let them interfere with other things too much.
33. Feeling bad that you cannot avoid the problem
35. Realizing you bring the problem on yourself.
41. Going over the problem again and again in your mind to try to understand it.

GROWTH

6. Feeling you change or grow as a person in a good way.
14. Concentrating on something good that can come out of the whole thing.
19. Rediscovering what is important in life.
30. Feeling that time will make a defference, the only thing to do is wait.
37. Doing something totally new that you never would do if this had not happened.
42. Feeling you find new faith or some important truth in your life.
48. Being inspired to do something creative.

HELP-SEEKING

4. Talking to someone who can do something concrete about the problem.
9. Asking someone you respect for advice and following it.
23. Talking to someone to find out more about the situation.
53. Getting professional help and doing what they recommend.

BILLINGS AND MOOS COPING SCALES

ACTIVE-COGNITIVE

61. Try to see the positive side.
62. Try to step back from the situation and be more objective.
63. Pray for guidance and strength.
64. Take things one step at a time
65. Consider several alternatives for handling a problem.
66. Draw on your past experience, you were in a similar position before.

ACTIVE-BEHAVIOURAL

67. Try to find out more about the situation.
68. Talk with professional people about the situation.
69. Take some positive action.
70. Talk with partner or other relatives about the problem
71. Talk with friend about the situation.
72. Exercise more.
73. Prepare for the worst.
74. Sometimes take it out on other people when you feel angry or depressed.
75. Try to reduce the tension by eating more.
76. Try to reduce the tension by smoking more.
77. Keep your feelings to yourself
78. Get busy with other things in order to keep your mind off the problem.
79. Don't worry about it, figure everything will probably work out fine.

PROBLEM-FOCUSED

64. Take things one step at a time.
65. Consider several alternatives for handling a problem.
66. Draw on your past experience, you were in a similar position before.
67. Try to find out more about the situation.
68. Talk with professional people about the situation.
69. Take some positive action.
70. Talk with a partner or relatives about the problem.

APPENDIX D

BIOGRAPHICAL QUESTIONNAIRE FOR USE WITH PARASUICIDES

Date of Birth: _____

Date of Admission: _____

Date of Parasuicide: _____

Date of Assessment: _____

Name: _____

Age: _____

Sex: _____

Religion: _____

Address: _____

Telephone Number: _____

Education: _____

Occupation: _____

Last Job: _____

If unemployed, duration: _____

Period of current/past employment: _____

Reason for leaving: _____

What is the family's means of support (primary bread-winner's occupation, additional sources of income, etc.)

_____

_____

Estimate of the family income for the month/year:

_____

Is your father still living?

_____

If dead, what was the cause of death (a) natural (b) accident (c) homicide (d) suicide ?

Subject's age at the time of death:

_____

Is your mother still living?

_____

If dead, what was the cause of death (a) natural (b) acciodent (c) homicide (d) suicide ?

Are your parents separated or divorced ?

_____

Is there a family history of parasuicide?

_____

Have you made any previous suicide attempts?

_____

What were the circumstances surrounding the present parasuicide event? _____

What method did you use to make a suicide attempt ?

_____

BIOGRAPHICAL QUESTIONNAIRE FOR USE WITH SUBJECTS OF THE CONTROL GROUP:

Date of Assessment:_____

Name:

_____

Age:

_____

Sex:

_____

Religion:

_____

Std. of Education:

_____

Address:

_____

Telephone Number:

_____

Previous Hospitalizations for Suicide Attempts:

_____

If currently employed, type of employment:

_____

What is the family's main means of support (what is the primary bread-winner's occupation.

_____

_____

Are there any additional sources of income?

_____

_____

Estimate of the family's income for the month/year:

_____

Is your father still living ?

_____

If not, what was the cause of his death: (a) natural (b) accident (c) homicide (d) suicide.

Subject's age at the time of father's death.

_____

Is your mother still

living?_____

If not, what was the cuase of her death:

_____

Subject's age at the time of mother's death:

_____

Are your parent's separated or divorced ?

_____

Is there any history of parasuicide in the family ?

_____

Have you made any previous attempts ?

_____

What were the circumstances surrounding the present parasuicide?

_____

_____

What methods did you use to make the parausuicide attempt?

_____

_____

APPENDIX E

Stores Cat. No. 23-62301/P 71988/2.92/HJP DBN.

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HEALTH SERVICES BRANCH

☎ : 72512 Ext. 112
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Enq.: Dr R Vather
Ref.: ND/66/1

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3200
06 September 1993

Ms Ann Hare
Department of Psychology
University of Natal
P O Box 375
PIETERMARITZBURG
3200

Dear Madam

PERMISSION TO CONDUCT RESEARCH

Thank you for your letter dated 1 September 1993.

Permission has been granted to conduct your research at Northdale Hospital providing you sign the attached indemnity form and present it to the Senior Medical Superintendent on your arrival.

Yours faithfully

[redacted]

SENIOR MEDICAL SUPERINTENDENT
NORTHDALE HOSPITAL

RV/sf

APPENDIX F

Republic of South Africa
Republiek van Suid-Afrika

ADMINISTRATION: HOUSE OF DELEGATES
ADMINISTRASIE: RAAD VAN AFGEVAARDIGDES

Department of Education and Culture
Departement van Onderwys en Kultuur

☎ (031) 3606911 Fax: (031) 374261

Truro House
Trurohuis
17 Victoria Embankment
Victoria Embankment 17
Private Bag X54323
Privaatsak
DURBAN
4000

Ref. No. A 10/29/2/40
Verw. No.

Enquiries H. Rambehari
Navrae

1993 -11- 16

Ms Ann Hare
c/o Department of Psychology
University of Natal
P.O. Box 375
PIETERMARITZBURG
3200

Madam

REQUEST FOR PERMISSION TO CONDUCT RESEARCH IN DEPARTMENTAL SCHOOLS
Your undated letters received on 1993-11-02 and 1993-11-08 have reference.

1. Permission is hereby granted to you to conduct your research at the 3 secondary schools indicated in your letter provided that :

1.1 prior arrangements are made with the principals concerned;

1.2 participation in the research by pupils is on a voluntary basis;

1.3 completion of questionnaires is done outside normal teaching time; and

1.4 all information pertaining to pupils is treated confidentially and used for academic purposes only.

2. Kindly produce a copy of this letter when visiting schools.

3. The Department wishes you every success in your research and looks forward to receiving a copy of the findings.

Yours faithfully

[redacted]

DEPUTY DIRECTOR-GENERAL

931231/ann/rn

APPENDIX G

University of Natal

Faculty of Social Science
Department of Psychology
P.O. Box 375 Pietermaritzburg 3200 South Africa
Telephone (0331) 955369 Fax (0331) 955599
Telegrams University Telex 643719

Dear Parent(s),

Permission To Conduct Research.

I request your permission to allow your son/daughter to participate in a research study at the Northdale Psychology Clinic. The research forms part of a Master's thesis investigating the psychological aspects of adolescents who have made a suicidal gesture. Your son/daughter will be required to fill out three questionnaires - The Suicide Intent Scale, Attributional Style Questionnaire and The Ways of Coping Checklist. All clinical and test information will be treated with the utmost confidentiality. Normal hospital procedure will be followed in ensuring that your son/daughter receives counselling at the clinic in addition to participation in the study.

I would greatly appreciate it if your consent for your son/daughter's participation is granted.

Sincerely
Ann Hare
(Intern Clin. Psychologist)

[redacted]

Supervised By
D.R.Wassenaar
(Senior Lecturer and Clinical Psychologist.)

[redacted]

University of Natal

Faculty of Social Science
Department of Psychology
P.O. Box 375 Pietermaritzburg 3200 South Africa
Telephone (0331) 955369 Fax (0331) 955599
Telegrams University Telex 643719

Dear Parent(s),

PERMISSION TO CONDUCT RESEARCH.

I request your permission to allow your son/daughter to participate in a research study. The research forms part of a Master's thesis investigating the psychological aspects of adolescents who have attempted suicide. Although your son/daughter may not fall into the category of suicide attempters, the research requires a group of non-suicidal students with whom to compare the results. Your son/daughter will be required to fill out three questionnaires: the Suicide Intent Scale, Attributional Style Questionnaire and Ways of Coping Checklist. All clinical material will be treated with the utmost confidentiality.

I would greatly appreciate it if your consent for your son/daughter's participation in the study is granted.

Sincerely
Ann Hare
(Intern Clinical Psychologist.)

[redacted]

Supervised By
D.R.Wassenaar
(Senior Lecturer and Clinical Psychologist.)

[redacted]