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DELIBERATE SELF-HARM AMONG ADOLESCENTS IN RESIDENTIAL TREATMENT CENTRES

by

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ABSTRACT

The purpose of the present study was to examine differences between a group of adolescents who had made acts of deliberate self-harm (DSH) as compared to a group of adolescents who had not made acts of DSH. A sample of 40 adolescents took part in the present study. They were all residents of either the William Roper Hull Home or Wood's Adolescent Care Centre. Both of these facilities are located in Calgary. The subjects were divided into two groups of 20, as determined by preset criteria. There were two phases: Phase 1 involved the administration of several standardized psychometric tests to each subject. These tests were designed to measure various personality dimensions such as impulsivity, anxiety, aggression, self-esteem, hopelessness, and cognitive judgment. Phase 2 involved examining each of the subjects' case files on numerous life history variables. These included: birth history, residential history, education history, early negative emotional trauma, and suicide history.

The results of the present study suggested that the psychometric testing was limited in discriminating between the two groups. However, several of the life

history variables showed discriminating power. The subjects in the DSH group reported more often to not having someone who cared about them, showed a higher frequency of residential moves, failed more often in school and were separated at an earlier age from their natural parents.

Loss and early attachment theory was offered as trying to account for these data. Treatment and management issues for adolescents in residential care was also discussed.

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CHAPTER 1

INTRODUCTION

In recent years increased attention has been given to the alarming high rate of suicide among young people. Recent studies indicate that suicide is the second leading cause of death among young people in the United States and Canada (Margolin & Teicher, 1978; Davis, 1985).

In Canada, the national suicide rate per 100,000 population for the year 1982 was 13.9 (Office of the Alberta Chief Medical Examiner, 1983).

In Alberta, completed suicide rates have more than tripled for ages 15 to 25 during the past 25 to 30 years. The rate of completed suicides has doubled for 15 to 19-year-olds since 1955 (Hellon & Solomon, 1980). In 1979, between 40% to 44% of all completed suicides were for ages 15 to 30 years. In 1984, Alberta's rate was among the highest in the nation, according to the Provincial Medical Examiner's Office. Suicides in Alberta rose to 18.1 per 100,000 population, returning to a record number of self-inflicted deaths recorded in 1980 when Alberta reported the highest suicide rate of any province or territory. Although the suicide rate dipped to a low of 15.9 per 100,000 Albertans in 1981,

the province has consistently stayed among the top three provinces where suicides have remained three to four percentage points above the national average. The rate among adolescents has continued to increase (Davis, 1985).

Concern over the dramatic increase in adolescent suicide rates over the past two decades has been reflected in the number of publications devoted strictly to child and adolescent suicide. Overall, the findings from the literature suggest that demographic, biological and psychological factors are varied and intertwined between the precipitating event and the final act of completing suicide.

1.1 Operational Definitions

Over the course of this research there have been attempts by investigators to refine and keep defining the term 'suicide' since it is used widely and misunderstood in general. The term has been used overinclusively to describe behaviors that range from an action that results in death to one that is essentially non-fatal. The term 'attempted suicide' is also frequently used inappropriately to describe acts of deliberate self harm (DSH) which do not have the intention of self killing. Over the last decade the term 'parasuicide' has been developed to describe these

acts of deliberate self harm which do not involve a clear intention to die (Kreitman et al., 1969).

For the present study, the term "deliberate self-harm" will be used to describe those acts where the motivation to die (or intent), and lethality of the act are not known. Where intent and lethality are known, the term "attempted suicide" will be used. The terms "suicidal ideation," "suicidal gesture," and "suicidal threat" will be used if intent or other motivational aspects are known (Kahan & Pattison, 1984).

Regardless of the definitional terminology that presents itself in the literature, one thing is clear. More and more young people are thinking about suicide and are deliberately harming themselves. Davis (1985) discusses the frequent suicidal crises in schools and points to data to indicate that as many as 50,000 high school students in the United States may be at risk to a self-harm attempt. Davis questions the accuracy of these statistics on the grounds that statistics can be inaccurate owing to the over- or underreporting. It is safe however, to assume that DSH are not overreported because of the denial and social stigma associated particularly with children and adolescents (Toolan, 1975). The literature is quite clear and unequivocal that underreporting of DSH is a major problem.

The purpose of the present research was to explore differences between DSH subjects and non-DSH subjects in residential treatment centres for emotionally disturbed children and adolescents. This has not been an area which has previously been explored to any degree. The present study was initially designed to ask directly about events of DSH for each subject. However, due to policy and certain ethical restrictions, direct questioning about suicidal behavior or ideation was not allowed.

Further, because of not being able to question the subjects more directly, there was no way to examine and measure the subjects' intent to die and the lethality of the intent. Therefore, the term "deliberate self-harm" (DSH) was used in classifying the behavior of both groups.

The present research made use of the subject's case files to gather demographic, cultural, parents' history, early life events of the subject, including early loss. Recent literature (Adam, 1982; 1985) have suggested that DSH and possible suicides tend to develop out of early loss and lack of important attachment figures. The findings regarding this concept will be discussed further in later chapters.

Another aim of the present research was to

systematically implement standardized psychological tests in an effort to more closely examine the underlying personality dynamics of the individuals comprising the two groups. In the area of DSH, there has been little work done using psychological measures in a younger population. The findings with mostly an adult population (Graham, 1982), suggest that objective tests may be useful in examining differences between people who have self-destructive tendencies and those who don't. Properly constructed psychological measures may provide clues that an interview or review of case files may not necessarily. Initially, several tests that examined intent and motivation were proposed, but due to ethical restrictions, were not allowed in the final research methodology.

Any suicide is tragic and wasteful. Suicide among adolescents is particularly tragic since their potential as contributing members of society has not been realized. The present study attempts to examine closely the problems of adolescents who are in residential care and how the acts of DSH may develop. Perhaps the suggestions offered by the present study will be incorporated to include a broader sample of adolescents in future studies.

The present study makes a fundamental assumption

that children are our most precious resource. However to a suicidal young person this statement has lost meaning for there is very little purpose in living any longer. Society, parents and teachers are all part of the blame that a young suicidal person addresses in rationalizing the intent to die (Grossi, 1986; Davis, 1985). The final goal of the present study is to hopefully set a foundation for further short and long term follow-up studies that will make us more aware of the type of individual who is likely to attempt suicide. This requires a concerted effort and a great deal of cooperation among all concerned.

CHAPTER 2

DIFFICULTIES WITH SUICIDE RESEARCH

There is no question but that researchers involved with the area of suicide issues have contributed valuable information that can be used in an attempt to understand life threatening behavior. On the other hand, one of the problems with the literature is the generalizability or even the validity of the reported results (Bermann & Cohen-Sandler, 1980; Lester, 1972; Schaffer, 1974). Lester (1972) felt that most suicide predictors were unreliable because of the "poor quality of suicide research." Like any other research area, problems of design and interpretation must be solved before valid conclusions can be drawn. More specifically, in order to research, one must understand exactly what the issues are. Yet, in suicide research, it frequently appears that researchers are using a particular name but referring to different phenomena. Consequently, when results from different researchers are compared, apparent contradictions and misinterpretations are far too frequently the case.

Neuringer (1962) pointed out that suicidologists have been aware of this problem and have worked on strict criteria to define the behaviors of suicide. He

also stressed that the greatest methodological problem in suicide research concerns the definition of the behavior. The most basic dimension in the definition of suicide is based on the actual behavior. Therefore he identifies five categories of overt behavior that can be classified within the suicide continuum: completed suicides, attempted suicide, suicide threats, thoughts of suicide, and no preoccupation of suicide. A possible sixth category would be that of the suicide gesture, an attempt which does not involve a real intent to die. This has sometimes been called "parasuicide" (Kreitman et al., 1969).

Suicidal behavior can also be analyzed in terms of lethality, such as the number of barbiturates taken or the height from which a jump is made. The idea of lethality brings in a second basic dimension, the intent of the suicidal person (Beck et al., 1974). Death or continued life is not always achieved according to the person's intention. People who complete suicide may have hoped that someone would save them, while attempters may really have wanted to die and been interrupted accidentally. Neuringer stated that categorizing by intent could be more meaningful than categorizing by behavior. However the measurement of intent is much less reliable than that of behavior. It

may be possible to find out whether an attempter really meant to complete suicide, but is quite difficult to ascertain whether a completed suicide intended a gesture only.

Another important dimension for the definition of suicidal behavior concerns a degree of consciousness preceding the suicidal act. It has been claimed that a few individuals kill themselves in an automatized state such that they are not aware of their actions. However, the evidence to support this claim is inaccessible. Other forms of suicide that are not consciously planned may exist. For example, according to Selzer and Payne (1962) people with serious suicidal preoccupation had more automobile accidents than people who were not preoccupied with suicide. But automobile accidents could also be planned suicide. Lester and Lester (1971) suggested that it may be that the impulse towards suicide can act unconsciously and result in unplanned, accidental deaths.

Some suicidologists have considered long-term gradual self-destructive behavior as a form of suicide. Menninger (1938), for instance, used the term "chronic suicide" to refer to individuals who showed alcoholism, accident proneness, or other behaviors which are likely to result in premature death after a long period of

time. The existence of these many possible categories of suicidal behavior is important for designing and interpreting research. As long as there is some suspicion that individuals in the different categories differ from one another, the researcher must be sure that he/she knows in which category a particular individual belongs.

2.1 Methods of Investigating Suicide

Of course the researchers studying completed suicides cannot collect data from the dead individual. Instead, the researcher must rely on two less satisfactory methods of investigation. The first has been typically called the method of residuals. The researcher can use written material and other evidence left behind, such as suicide notes, diaries, letters, previously collected psychological test data, and the memories of friends and relatives. This method is useful but less than perfect. One problem is that observational distortion may occur; friends and relatives may not remember very well what the person was like, and their memories may be colored by the fact of the suicide. The validity of the information is difficult to determine. This is true not only of reminiscences about the subject, but also about material

the dead individual wrote.

Another important problem when employing the method of residuals concerns the establishment of control groups. Farberow (1955) has asked; what for example, should suicide notes be compared with? There a number of possibilities: suicide notes written by nonsuicidal subjects who pretend, at the request of the researcher that they are about to kill themselves; nonsuicidal letters written by suicidal people; nonsuicidal letters written by suicidal people; nonsuicidal letters written by nonsuicidal people. Neuringer (1962) has suggested that none of these alternatives provides an ideal control group. Each has advantages as well as disadvantages compared to the others.

The other commonly used method is sometimes called the method of substitute subjects. The researcher can get a group of living subjects who are representative of completed suicide. Usually, the substitute subjects are those who have attempted suicide. Neuringer, like other suicidologists argued that suicide attempters do not resemble suicide completers and thus the method is invalid. Lester and Lester (1971) have noted that the issue is actually an empirical one, for which there is insufficient evidence. It should be possible to obtain an empirical answer to the question of differences

between completed and attempted suicide.

Stengel (1969), argued that suicide means, "the fatal and suicidal attempt, the non-fatal act of self-injury undertaken with more or less conscious self-destructive intent, however vague and ambiguous." He suggested not using the terms successful and unsuccessful suicide as they imply that death is the only aim of every suicidal act. Stengel stated that those who attempt and those who commit suicide constitute two different groups or populations. Further, the definition of what constitutes a suicidal attempt is far from simple. If a person is taken to hospital in a drowsy or comatose state, having left a suicide note behind, and if the individual admits to wanting to take his own life, there is no problem in interpreting the nature of his actions. However, if another person, having been admitted in a similar condition denies suicidal intentions and contends that he took an overdose by mistake, or because he wanted to have a good sleep; is he to be regarded as a suicidal attempt? Many people deny suicidal intention after an act of self-harm, partly because they may feel ashamed or guilty. Stengel noted that it is not true that most, if not all, people who commit suicide are clearly determined to die. The study of attempted suicides does

not bear this out.

Lester (1972) suggested that one can study attempted suicide to learn about completed suicides but it is generally argued that the two groups represent two different but overlapping populations. A representative study shows the difficulty of drawing conclusions in this area. Farberow and Shneidman (1961) compared threatened, attempted, and completed suicides and found no differences in demographic variables, socioeconomic variables or early family environment. However the groups differed in psychiatric diagnosis, method of attempting suicide, and previous suicidal history. Given that there are both differences and similarities between groups, how do we answer the question about the validity of the substitute subjects?

As noted earlier, a proper control group for completed suicides is difficult to attain. Unfortunately, this same problem occurs when attempted suicides are the object of study. Even the proper control of information about the suicidal group is sometimes hard to achieve. There are several factors which contribute to this and they include; feedback effects from the suicide attempt, effects of hospitalization, and adequate control population.

Often when research is done on suicide attempters

information is collected immediately after the attempt. This, according to Cutter (1970), introduces many confounding variables. The person, after the suicidal act, is not necessarily similar to the way the person was before. There may be a cathartic effect from the attempt (Farberow, 1955); the individual's anger or misery may be temporarily reduced as a result of the suicidal behavior. The information given by that person about his feelings may not be the same as it would have been before the attempt. Therapeutic intervention may change the attempters feelings in one direction or another. The ways in which other people react to the attempt may influence the individual. The attempter may have damaged his brain as a result of the act. Finally, the attempter may try to act as appropriate as possible in order to facilitate his release from hospital. Ideally, data from before the suicide attempt as well as after the suicide attempt should be used.

In many situations hospitalized suicide attempters are treated somewhat differently than other patients. It has been reported by Shneidman (1963) that they are guarded closely and suspiciously. Further, they are often kept away from interacting with other patients for fear of influencing the others. Staff interactions at times can be superficial since staff may have shown

hesitation in dealing with the individual immediately after the attempt.

Ideally control groups in research on suicide should be nonsuicidal groups but in practice totally nonsuicidal subjects are difficult to obtain. Even if people profess to be without any suicidal tendencies, the researcher must remember that there may be reluctance to confess to the suicidal behavior and ideation. Most people have at one time or another at least thought about the possibility of suicide. Cutter (1970) points out that a control group is still possible as long as one uses two groups who do not overlap on the continuum of suicidal involvement.

2.2 Other Methodological Difficulties

Other methodological aspects of the general body of research have been criticized by several authors. Schaffer (1974) stated that most of the children in adolescent studies were only descriptions of official statistics emphasizing age, sex and suicidal method. This might have been because of several reasons. The behavior was not explained differently from that of suicidal adults, studies did not differentiate the dynamics of the suicidal behavior from those of other pathologies in the young people, the emphasis was placed

on the specific problems experienced by the young people without a more detailed account of his/her personality and finally, not enough investigators provided systematic diagnosis or predictors of suicidal behavior. Sample size can be a problem as well. If the sample is too small there is the question of generalizability and usually when the sample if relatively large, the dynamics of the child's or adolescent's life are excluded.

An issue related to the size of the sample is the mode of sample selection. Lester (1972) pointed out that suicide occurs in a heterogeneous group of people, and that investigators should take this into account when doing research. He further suggested that selecting adolescent samples from psychiatric or general hospitals may be good for understanding those specific groups of young adults but it may not be valid to generalize the findings to noninstitutionalized adolescents.

Statistical methods have been challenged as well. Bermann and Cohen-Sandler (1980) criticized adolescent studies for a "lack of rigor in experimental design." The lack of control or comparison groups, limited statistical analysis (quite often only descriptive measures such as percentages) and few reported operational definitions of suicide were all strongly

criticized by the authors. In their own study they found that, depending on the type of life-threatening behaviors examined, a different set of discriminant variables were observed. This finding was used to stress the need for clear operational definitions of suicidal behavior (Pettifor, Perry, Plowman, & Pitcher, 1983).

Perhaps the most productive effort in attempting to improve the quality of scientific research in the area of suicide has come from Smith and Maris (1985). They identified twelve areas that would improve the design and reporting of work in the area of suicide. They offered these recommendations as correctives to frequently observed problems in the study of suicide in other life-threatening behavior. They presented these at the 1985 board meeting of the American Association of Suicidology. The list, although not exhaustive, includes:

(1) That the specific life-threatening behaviors be clearly defined. They encourage separating persons with suicide ideas from those who have made attempts or have completed suicide. When persons making suicide attempts are studied, an appraisal should be made of the lethality of the attempts. They also advocate that people who make low lethality suicide attempts should be

studied separately from those whose actions are severely life-threatening. A rationale should be made by the principal researcher for combining these two groups.

(2) They argue that there should be a direct avoidance of extrapolating profiles of the characteristics of the individuals at risk on the basis of large group studies, especially those involving multivariate designs. This they refer to as the ecological fallacy.

> "Multivariate designs employ procedures that maximize the identification of all people who fit a criterion, regardless of their individual differences. While such procedures have many useful purposes, it is a misapplication to construct individual profiles based on items selected by this methodology. For example, in studying a group of high risk males, there may be a set of items that will identify the older, single alcoholic and another set to identify the middle aged, married man with a high pressure job and few children. A multivariate design might find that the items which identify the greatest number of suicidal people will be an amalgam of these two subgroups: the older male who has never married, but has one child. When this profile is reapplied to the data, there may be no single man that fits this picture and thus, an erroneous impression is created." (p.1)

(3) When data is collected from various sources, the likely bias introduced by these different perspectives should be discussed. For example, data collected directly from a suicidal person will likely differ from data derived from asking the same questions of surviving

spouses, friends, parents, or others.

(4) The relative efficiencies of predictive scales should be evaluated. These can be estimated by calculating the percentage of false positives and false negatives. Reliability and validity coefficients should be provided.

(5) Scales that have been designed to detect an individual who will likely kill himself/herself should be developed on data collected from individuals who have attempted suicide and have a high level of lethality (the "failed suicide" or those who have completed suicide). Scales that are developed employing individuals who have made a low risk attempt are useful, but should have as the goal of predicting those likely to make a future attempt rather than completed suicide.

(6) Tables should be clearly labelled and include totals, cell totals and means. Sample size and sample selection method should be carefully documented.

(7) Replication studies are encouraged as they can provide a basis for extrapolating reliable principles. Replication studies which employ different methodologies and subject populations are also desirable.

(8) Long-term studies and studies using prospective methodologies are encouraged.

(9) Control groups and experimental designs are

encouraged. Smith and Maris suggest that rather than simply stating the percentage of suicides who are either depressed or alcoholics, a much more scientifically appropriate statement would be the number of depressed or alcoholics among comparison groups such as people making suicide attempts, or people dying from natural deaths. An example of how effective this presentation could be would include the percentage expressed as either under or over of depressives or alcoholics (for example, from what would be expected,. e.g., "alcoholism made up only 7% of the suicides, undercontributing by 11%;" Farberow (1972).

(10) Theoretical constructs are often best explained by individual case studies. The studies should contain clearly stated operational definitions of the theoretical constructs studied and should specify how the particular conclusions (as opposed to other competing explanations) are warranted.

(11) The publication or inclusion of negative findings is encouraged. Smith and Maris strongly suggest that it is just as useful to know what is not correlated with or significantly related to a behavior as to know what is related.

(12) All suicide rates should fully specify their basis or denominators (e.g., 170/100,000 patient

admissions). Rates involving different units should not be directly compared. It has been shown that comparisons of rates based upon different units can result in as much as a four-fold distortion.

CHAPTER 3

ASSESSMENT OF SUICIDAL BEHAVIORS

The first step in effective prevention and treatment of suicidal behavior is the identification of those individuals likely to take their own lives and the prediction of imminent suicide risk. Smith (1986) has argued that research needs to move away from trying to predict suicide and focus more specifically on understanding when and why suicidal crises can occur. Rather than arguing in general terms Smith sees the future of suicide research moving towards a more individualistic model focusing on the emergence of types of personalities likely to contemplate a suicide. In the ideal situation, identification of a unitary suicidal personality type would lead to highly accurate predictions of suicidal behavior. Research endeavours designed to demonstrate the existence of such a personality type, however, have not met with great success (Smith, 1986; Kastenbaum & Lynch, 1978). Thus some researchers have agreed that the act of suicide may be the common endpoint of several different pathways, and it may occur among a variety of personality types.

Bagley (1981) has argued that if predictors of suicidal behavior are to be found, consideration should

be given to a wide range of clinical, psychological and epidemiological evidence.

In the past, predictive statements concerning suicidal behaviors were often based upon demographic variables. While the use of such statistical information suggests large groups of individuals at higher risk for suicide, this approach leads to high percentage of false positive prediction and in the absence of supporting clinical data, is of little help in the individual case (Teicher, 1979). More recently, results of concentrated research efforts have suggested a number of common features among suicidal individuals, ranging from sociological and social events to specific clinical states (Fawcett, 1978). It has been pointed out by Farberow (1974) that it is unlikely that any clinician could claim to identify the potentially suicidal individual in every case, therefore careful clinical assessment and attention to various combinations of biographical and psychological factors may well improve predictive capabilities.

Bagley (1981) commented on the difficult value and political problems inherent in any assessment of a potential suicide individual. Identifying the factors which predict suicidal behavior may effect major new programs in community medicine and other related

professions. "The problem becomes a political one, that of pressing for adequate resources or indeed for major social changes" (p.1).

In addition to this, even when the potential for suicide behavior has been successfully identified, the individual may reject any offers of treatment during intervention. The ethical dilemma faced is ensuring the freedom of decision-making for the individual on the one hand, while trying to provide the best possible mode of treatment for the individual--presumably to reduce the risk of any further suicidal activity. One of the ways to add to the objectivity is to consider implementing standard psychological tests.

3.1 Psychological Tests as Diagnostic Indicators

Despite the numerous problems characteristic of this research area (Fawcett, 1978), investigators have continued to be enticed by the possibility that persons who take their own lives may indicate their intent on an ink-blot or in responses to specifically constructed suicide scales. Unfortunately, very little work has been carried out on the prediction of children and adolescent suicides using psychological tests, although this is not the case with adults who have committed suicide (Boldt, 1976). While the results of these studies cannot necessarily be generalized to a younger

population, attention to the research problems and current state of knowledge in the literature suggests direction for future research of acts of DSH and attempted suicides by younger persons.

Lester (1972) reviewed the early attempts to utilize psychological tests as an aid in the recognition of potential suicide; considering both standard psychological tests and measures designed especially to assess suicide risk. He concluded that of the standard psychological tests, only the Rorschach and the Minnesota Multiphasic Personality Inventory (MMPI) had potential as prediction of suicidal behavior.

3.2 The Rorschach as a Suicide Predictor

Exner and Weiner (1982) suggested that the Rorschach can be conceived of in two ways: as a perceptual-cognitive task, or as a stimulus to fantasy. When the Rorschach is conceived of a perceptual-cognitive task, the inkblots are regarded as an ambiguous stimulus field onto which subjects must impose more structure and organization than is obvious. When the Rorschach is viewed as a perceptual-cognitive task, the structure of subjects' responses is used to draw inferences about structural aspects of their personality functioning. Exner and Weiner define personality

structure "as those relatively abiding traits, dispositions, preferred coping styles and sources of concern that give consistency to human behavior and contribute to the fact that people resemble themselves from one day and one situation to the next". (p.4)

When the Rorschach is regarded as a stimulus to fantasy, the inkblots are seen as a way to stimulate the subject's imagination and elicit fantasies that might not otherwise be accessible. "Like cloud formations, vaguely recollected dreams, and other ambiguous circumstances, the Rorschach situation provides considerable latitude for people to project their thoughts and feelings when they are asked, What might this be?" (p.5)

McCully (1971) examined the Rorschach protocols of twenty-five hospital patients that had been admitted following an act of deliberate self-harm. They tended to give more responses that focused on death, destruction, rotting flesh and diseased body, as compared to a group of matched patients who were admitted due to physical illness. However, Lester (1972) noted that an attempted replication study found no differences between completed suicides and nonsuicidal control subjects in the number of transparency and cross-responses. Neither were

differences found between groups who responded with decay responses, death responses, destruction, or diseased body.

Exner and Wylie (1977) were able to develop a profile of eleven variables obtained from Rorschach protocols, by examining 59 adults who completed suicides within sixty days after the record was taken. In an effort to develop a similar approach to identify the potential for self-destruction in younger clients, an analysis was completed of the protocols of 39 children and adolescents who completed suicides or made suicide attempts within a period of less than 60 days after the record was taken. That effort was far less successful than were the results using the adult sample.

3.3 The MMPI as a Suicide Predictor

The MMPI literature contains a number of investigations of personality characteristics related to poor control over acting out impulses. Efforts have been made to identify injurious actions in various settings, such as the likelihood of suicide attempts or the possibility of a homicidal attack on family members or innocent bystanders. Only moderate success has been reported in predicting rare events of this kind from personality test data (Rosen, 1954).

Suicidal risk is particularly difficult to evaluate

with any precision because it changes from day to day. A few studies have utilized repeated testings with the MMPI in order to plot the change in a person's emotional status. The usefulness of this procedure has been highlighted in the research of Devries and Shneidman (1967). Their research shows that the level of suicidal preoccupation may be fairly uniform throughout the course of a depressive episode but the risk rises rapidly as the person's depression clears. That is, although the person may be verbalizing his suicidal concerns explicitly during the depressive state, it is during the course of recovery from this depression that the actual risk of suicidal acting out becomes ominous (Dahlstrom, Welsh & Dahlstrom, 1975).

In summarizing many of the early studies on the use of the MMPI as a suicide predictor, Lester (1972) stated that there is no evidence for the utility of any single MMPI scale for the identification of attempted suicides. An alternate approach, however, using profile analysis, was found to be somewhat more promising. Devries and Farberow (1967) studied groups of patients who had threatened suicide prior to testing, who attempted suicide before testing, and a nonsuicidal group. They had looked at a sample of MMPIs from patients who had completed suicides. Considering only the Pa(6), Sc(8),

Pt(7), Ma(9), Pd(4), and D(2) scales, they found that the groups could be distinguished from each other by means of the MMPIs with greater accuracy than without the test. Graham (1982) reported the results of a large scale study on emotionally disturbed adolescents in which an MMPI had been routinely administered. Important MMPI differences for boys were found on scale Hs(1) and Mf(5), with suicide attempters scoring higher than nonattempters. For girls MMPI profiles yielded higher scores for attempters on scales D(2) and Hy(3), as compared to nonattempters. Kincel (1985) looked at MMPI profiles within an inpatient psychiatric population. He reported that the serious suicide attempt often had elevations on scales D(2), Pd(4) and Sc(8). He also noted a relatively low score (below a t-score of 50) on scale Mf(5) for females only. For males the serious attempt often was depicted by elevations on scales D(2), Pd(4), Mf(5) and Sc(8), all above a t-score of 70.

In summary, Graham (1982) maintained that the MMPI profile can be very useful if the clinician is careful in the interpretation. Suicidal ideation almost always is associated with depression according to Graham and therefore extreme elevations on scale D(2) are almost always present in the MMPIs of persons who have suicidal

ideas. As well the clinician should examine scale Pt(7) and often find that this is the second highest scale in the profile and may be the result of anxiety, agitation or rumination. In the adolescent population work remains to be done using a profile analysis focusing on the specific items when combined in conjunction with other measures at arriving at the most fruitful profile.

3.4 Suicide Assessment Scales

Recent work in this area has focused on the construction of scales to assess suicidal intent. Beck, Kovacs and Lettiri (1974) reported on the reliability and validity of a suicidal intent scale for suicide attempters and recently have extended their investigations to suicidal ideators who may have plans and wishes to commit suicide but not made overt suicide attempts (Beck, Kovacs, & Weisman. 1979). They have focused on the intensity, pervasiveness and characteristics of the ideation and wish in order to assess current suicidal intention and potentially to predict later suicidal risk (Anderson, 1981). Furthermore, these researchers have constructed a scale (the scale for suicide ideation) in an attempt to quantify relevant facets of suicidal intent.

The majority of research related to the prediction

of suicide using assessment scales has been carried out on adult populations and cannot necessarily be generalized to adolescents. Further, the identification of individuals who are at risk of taking their own lives remains a difficult task requiring attention to a wide range of diagnostic indicators. Anderson (1981) argues the challenge for those interested primarily in the diagnosis and prediction of suicidal risk appears to be in the direction of validating existing suicidal scales on children, adolescents and adult populations.

Although attempts to use psychological test data to predict suicidal potential have been weakened by methodological difficulties, they have indicated, according to Bagley (1981), a representation of cognitive and affective disturbances in many suicidal individuals. Ringel (1976), as reported in Bagley (1981), has suggested that these traits can in some individuals lead to the "presuicidal syndrome" which is characterized by three principal components:

(1) Constriction (rigidity in perception, lack of creative thinking, fixed patterns of behavior, disordered experience of time, and stereotyped emotional response to stimuli);

(2) Inhibited aggression turned towards the self;

(3) Suicidal fantasies (persistent and elaborate

fantasy rehearsals of committing suicide, rumination over the idea of being dead, and the effect of one's death on others).

Finally, it should be noted that because an individual is chronically psychologically disposed to suicidal behavior does not necessarily imply that the act of completing suicide follows. Lester (1972) suggests that in order to predict suicidal potential, a variety of demographic and clinical indicators should be employed. These would include actual verbal communication, prolonged separation from a parent at an early age, a current suicide plan, a history of prior suicide attempts, feelings, states or symptoms (depression, anxiety states, panic and confusion), certain stress situations, and limited resources.

The developmental demands of adolescents call for still more expanded horizons: the establishment of autonomy and a clear ego identity; the development of friends outside the home; sexual relationships; the achievement of success at school and the beginnings of a career. These events are typically occasions of pleasure to most families. However these are experiences of deep pain and threat of loss to some. Richman (1979) claims that such families see the outside world as an enemy and set up protective barriers to

shield themselves. The family thus becomes a closed system and tries to avert these necessary tasks of adolescents.

The challenge remains for future research to continue to make use of the most productive standardized scales and measurements to fully understand the adolescent personality that would be more likely to undergo a suicidal crisis. In part, this was the rationale for undertaking the present study. Unfortunately, because of ethical and policy restrictions, suicidal intent scales were not permitted to be used in the present study. Therefore other measures which have indirectly been associated with self-destuctive behaviors were employed. The rationale for the selection of these chosen scales is provided in a later chapter.

CHAPTER 4

THEORETICAL FORMULATIONS ON SUICIDE

In 1936 Zilboorg stated "It is clear that the problem of suicide from a scientific point of view remains unsolved. Neither common sense nor clinical psychopathology has found a causal or even strictly empirical solution" (p.272). Perlin (1975) summarized the early work and concluded that theories of suicide have not undergone sufficient amplification since this statement was made. Perhaps the most that has been accomplished in the last twenty years has been a more interactive approach from the sociological and psychoanalytic data and increased recognition that suicide is more a number of syndromes than a discrete psychological entity. Perlin further claims that the earliest theories of suicide were largely demonological and theological. A good deal of arguments have centered around whether the individual has the right to take his or her life.

Suicide was considered a conscious volitional act evidenced by laws that existed against suicide and by its being banned by some religions. However, both Hobbes and Berkeley among others discussed the intriguing quality of death because of its unknown

aspects and the invitation for a new beginning which it offered in fantasy. Shneidman (1964) surmised that the breakthrough in the understanding of suicide occurred from two separate fields: Freud's psychodynamic elucidation and Durkheim's sociological approach. Freud's paper Mourning and Melancholia (1925), which depicted the dynamics of depression, also provided the framework for the psychoanalytic theory of suicide. This theory, in brief, is essentially one which posits the turning of sadism against the individual himself. As Freud stated "The ego sees itself deserted by the superego and lets itself die."

Freud was very specific in his theory of depression in postulating the death instinct Thanatos to accompany his life instinct Eros. He stated that when the patient has identified with the person whom he both loves and hates, the strong ambivalent feelings are turned in on himself and unconscious sadism is directed against himself. The suicides were thus the victims of strong aggressive impulses which they failed to express outwardly and which, as a result, were turned inward. Menninger (1938) is probably the best known protagonist of Freud's proposal of a death instinct, visualizing suicide as the winning out of the destructive tendencies over the constructive tendencies. Menninger analyzes

three sources of suicide: an impulse derived from the primary aggressiveness crystallised as a wish to kill: impulses derived from a modification of the primitive aggressiveness crystallised as the wish to be killed: and, impulses from primary aggressiveness and additional motives crystallised as the wish to die.

Fenichel (1945) takes Freud's ideas of a strong ambivalent dependency on a sadistic superego and the necessity to get rid of an unbearable guilt tension at any cost. He notes the desire to live means to feel supported by the protective forces of the superego. When this feeling vanishes, the original feeling of annihilation which the individual experienced early in his life reappears. Since the superego is made up of introjects which represent incorporated love objects, suicide involves the murder of the original object whose incorporation helped to create the superego. Along with the self-murder goes the hopeful illusion that forgiveness and reconciliation will be attained by the killing of the punishing superego and the regaining of a union with a protective superego. Anna Freud (1937) stressed that turning against the superego may be strengthened by identification with an aggressor.

Pollack (1938) and Read (1936) are others who accept the Freudian theory. Pollack adds that

instability of mood and difficulty in sexual adjustment with Oedipal and homosexual situations occur frequently. Zilboorg (1936) further points out that suicide is a way of thwarting outside forces that make living impossible. In his studies he found that every potential case shows strong unconscious hostility combined with an unusual incapacity to love others. Another aspect which he emphasizes is a paradoxical effect of living by killing oneself. This is one method of gaining immortality and fame, thus maintaining the ego rather than destroying it. O'Connor (1948) also stresses the immortality aspect saying that the suicide of a depressed patient is a kind of return to early power narcissism where the person achieves omnipotence. O'Connor warns that when a depressive shows sudden improvement suicide may be even more of a possibility because of the change in attitudes. O'Connor stresses the early influence, interpreting the motives for the suicide on the basis of infantile organizations, particularly aggressiveness and narcissism.

Palmer (1941) studied suicide in eighteen children under thirteen years of age and found that there was hardly any case in which spite and revenge was not important. He concluded that suicide for children was an attempt to escape an unbearable situation, usually

consisting of the deprivation of love. Aggressive tendencies were provoked which elicited guilt feelings and these aggressive feelings were then directed against the self. Further, these feelings could be increased by constitutional factors and/or identification with an aggressive parent. The attempt also constitutes a punishment against the surroundings and a method of getting a greater amount of love. Palmer also stressed the importance of early influences. His main contention was that arrest in psychosexual development is the basic mechanism in the majority of suicide attempts. The arrest in development is most often due to a loss of or unavailability of parents at crucial stages in the child's life. These are particularly, the years during which the child is making identifications which allow the child to progress through the various stages. Though he found spite to be present frequently, Palmer argued that it was a rationalization of a deeper-lying defect in development, rather than a direct incitement. He stated that two of the major factors which led a person towards suicide are the loss of a vitally important libidinous object and aggression secondarily turned against the ego. The act then becomes for the suicide a way of recovering the lost object and at the same time a way of freeing that person from the

aggression of the environment. He also added that hereditary constitution was an important factor to consider.

Bergler (1946) feels that differentiation must be made between the types of suicide. He calls one type the introjection type or that in which the patient has guilt feelings against which is mobilized pseudo aggression. A second type is called the hysteric type which is an unconscious dramatization of how one does not want to be treated, accompanied by childish misconception of death lacking finality. The third type is the miscellaneous, made up of other suicides like paranoid schizophrenics who project their superegos outwardly and hear voices commanding them to kill themselves. Bergler doubts whether aggression leading to inner guilt is the basic principle and believes that inner passivity, masochistically tinged is the decisive element.

An alternative position to that of Freud was expressed by Durkheim (1897) who approached the problem of suicide from a sociological point of view. His interest was not in the individual but in the forces of society which affect the individual. The three types of suicide that are commonly associated with Durkheim's theory are egoistic suicide, in which the individual is

not sufficiently integrated into his society; altruistic suicide, in which there is an overintegration of the individual within society which the individual sacrifices as in the case of a soldier on the battle field; and anomic suicide, in which the individual's adjustment to society is suddenly disrupted, as through great economic depressions or by sudden wealth. In essence Durkheim arrived at some conclusions which are still respected by current authorities. He dismissed climate and certain other extra social influences as causes of suicide and suggested that a major factor was a lack of sympathetic acceptance of an individual by his social group.

In 1897 Durkheim's scientific work called Le Suicide attempted to understand suicide on the basis of the whole being greater than the sum of its part. In contrast to the psychoanalytic view, Durkheim insisted that suicide is "explicable etiologically with reference to the social structure and its ramifying functions" (p.69). He saw suicide to be the result of society's strength or weakness of control over the individual. The egoistic suicide implied that man seeks to kill himself because of a loss of cohesion in his society. Excessive individualism springs from weakened groups and relationships causing the ego to assert itself even at

the expense of its own life. When the individual has too few ties with the community the demand to live may decrease to some extent.

The altruistic type suicide occurs when society holds the individual in too strict tutelage. In other words, this is the very opposite of the egoistic type. The ego is not its own property and may be called upon by society to sacrifice itself, as in the Indian suttee or Japanese hara-kiri (seppuku). Durkheim noted in his later writings that this was distinctively different among the military personnel. Not only are they disciplined to offer up their lives for the greater good of the society but Durkheim felt this reduction of individual life, as the ultimate value, sets up possibilities for easy sacrifice in a variety of stressful situations. Durkheim describes anomic suicide as that voluntary death which occurs when crises or disturbances of equilibrium take place in the collective order. This condition comes to pass when one's activities lack regulation or stability. It is akin to the egoistic suicide as both indicate the insufficient presence of society in an individual life. Loss of a job, loss of a close friend or loss of fortune could result in this type of suicide. In later writings Durkheim classifies suicide of the insane as maniacal,

melancholy, obsessive, and impulsive. He asserts that suicide can be very contagious though not inherited. He noted that an individual susceptible to suggestion as in hypnosis, could become predisposed to the idea of self-destruction.

> "In development of suicide theory one thus moves from self in society to interaction between the two, then to a search for relationships, and finally to significant validation of life here and beyond this earthly existence" (Durkheim, 1897, p.334).

4.1 Recent Theoretical Formulations

Freud and Durkheim continued to be instrumental in pacing recent theoretical advancements in the area of suicide. It has been argued that emerging models can never get away totally from either a Freudian or Durkheimian point of view. Basically the recent advances have been attempts to go deeper into probing the specifics within either a psychological theory pertaining to the individual or a sociological theory pertaining to the individual within the context of the society or a combination of both.

4.2 Attachment and Loss

John Bowlby and his followers have demonstrated that human infants regularly show a marked behavioral response to even brief separations from principal caretaking figures in their early years (Bowlby, 1969).

> "The behavior may consist of little more than checking by eye or ear on the whereabouts of the attachment figure and exchanging occasional glances and greetings. In certain circumstances however following or clinging to the attachment figure may occur and also calling or crying, which are likely to elicit his/her caregiving. The system's mediating attachment behavior are activated only by certain conditions, for example strangeness, fatigue, anything frightening, and unavailability or unresponsiveness of attachment figure, and are terminated only by certain other conditions, for example a familiar environment and the ready availability and responsefulness of an attachment figure. The unchallenged maintenance of a bond is experienced as a source of security and the renewal of a bond as a source of joy (Bowlby, 1980, p.39-40)."

The typical pattern of these responses is an initial phase of protest, characterized by agitation, tearfulness and anger. A second phase of despair during which the child appears quiet and socially withdrawn, and a phase of detachment after prolonged separation where the child appears to lose interest in the attachment figure and rejects attempts to approach him. The relationship of earlier patterns of attachment behavior to attachment behavior later in life has only recently to begun to attract attention. Weiss (1982) in his studies on the attachment of adolescents to their parents has shown that while attachment to parent continues in normal adolescent it is eventually transferred from parental figures to another object.

His evidence seems to suggest that the quality of attachment remains the same, i.e., it is a "single perceptual system" with similar responses of separation distress and loneliness in the face of the absence of the attachment figure. Bowlby (1977) has described a number of pathological patterns of attachment in later life which he feels are related to disturbed detachment earlier in life. Among these are chronic yearnings for love and support, anxious attachment, compulsive self-reliance and emotional detachment. These patterns of behavior reflect the lack of trust and insecurity that attachments hold for such individuals, which make it difficult for them to form stable relationships which maintain self-esteem and a sense of continuity in life.

The evidence that suicidal behavior and disturbances in attachment are closely related comes from several sources. Epidemiological studies of attempted suicide and suicide have regularly pointed to a higher incidence of single status and marital failure than in controlled populations and many clinical studies have noted that these individuals experience major difficulties in their interpersonal relationships (Adam, 1982). Adam (1980) found that only 10% of attempted suicides were rated as having a "stable" current relationship, compared to 75% of general practice

controls, and 73% of the attempted suicides felt this relationship was likely to fail. The acute suicidal crisis, more often than not, is precipitated by a crisis in a close personal relationship in which the threat of rejection is imminent. While the actual attempt often takes place impulsively it is usually preceded by a period of increased stress and deteriorating relationships. Paykel (1975) found attempted suicides to have experienced four times as many critical life events in the six months prior to this attempt than the general population and 50% more than depressive controls. Prominent among these events were undesirable and uncontrolled events and serious arguments with a spouse. Similar findings have been reported in suicidal children.

Cohen-Sandler et al. (1982) found that suicidal children not only had experienced more chaotic events throughout their lifespan than depressed nonsuicidal children and psychiatric controls, but they experienced an increasing amount of these events as they matured. Nearly all of the events described (parental, marital, separation, remarriages, hospitalizations, death of close grandparents, birth of siblings, and other psychological traumas like witnessing a murder) are likely to have threatened the availability of parental

figures.

4.3 Suicidal Careers

On the other hand Maris (1981) argued that suicide can be thought of as resulting from an inability or refusal to accept the terms of the human condition. He, like Adam, argues from a developmental perspective and puts forth the idea that suicide is not simply a reaction to a time limited crisis but involves the individual's entire life experience included within his social cultural milieu. His argument centers around two issues: (1) that most people are interested in suicide because it represents one resolution to this human predicament in which we all participate but are not all equally conscious and, (2) that we are particularly vulnerable to suicide when death, decay and destruction break through our defenses in systematic and patterned ways over a lifetime. Diluting the will and ability to live ultimately makes suicide the only alternative. His notion of a suicidal career indicates that a salient trait of suicide is that major life transitions tend to be dysfunctional and thus their development stagnates. Both Maris and Adam express the notion that even though the act of killing oneself can be impulsive there is an elongated period prior to this act that an individual contemplates and weighs his/her alternatives very

carefully. For Adam the critical variable is the loss of loved one, the loss of a meaningful existence within the individual's life. For Maris the critical variable includes the sociological environment that produces irritability, abusiveness towards that individual and rejection of the individual from the society.

4.4 Sociobiological Perspective

Finally, an alternative position to that of a careers or loss perspective is that of de Catanzaro's (1981) sociobiological view. He argues that self-destructiveness occurs as a behavioral characteristic of the human species as a whole. "It has occurred as long as human history has been recorded and is present in almost all societies today" (p.9). He states that where carefully collected data are available, it occurs at some rate in less technologically developed or primitive cultures as well as in more technologically developed cultures; in some cases the rate in primitive cultures is as high as or higher than that in the technologically developed cultures. It is not, however, found in other species to any appreciable extent, although de Catanzaro claims some forms of adaptive behavior in non-humans may be associated with a high mortality. This sociobiological argument assumes that suicide usually occurs in individuals that are subject to some

protracted and inescapable stress, or at least who believe they are subject to such stress. Accordingly, suicidal individuals generally have reduced biological fitness relative to others in the population, in that they have a reduced capacity to promote the existence of their genes in future generations. De Catanzaro surmises that suicide is clearly related to reproductive status. In almost all cultures it is much more frequent in single, widowed, or divorced individuals, who are less capable of propagating their genes through reproductive activities, than in those with stable marriages or other relationships allowing them to reproduce. This model continues to explore research directed at learning versus innate determination; biological fitness and self-harm; and cross-cultural comparisons in suicidal behavior.

CHAPTER 5

FACTORS CONTRIBUTING TO SUICIDE POTENTIAL IN ADOLESCENTS

There can be no question that self-destructive behavior is a complex phenonomen resulting from an interaction of many environmental, social and psychological factors. These have been examined by many researchers in an attempt to identify predispositional factors that could be used to alert professionals and family members of possible self-destructive behaviors.

5.1 Sex Differences in Suicidal Behavior

Wilson (1981) maintains that the most persistent finding in studies of suicidal behavior is that women and the young attempt and that men and older people complete suicide. Some of the differences between attempts and completions can be seen as a consequence of the method used. Men are more likely to use methods which are immediately lethal. Yet, when controlled for type, there are no differences, e.g., among those who use guns, both men and women have the same suicidal rate. Wilson contends that suicide is the ultimate coping mechanism because it rids one of the need to cope further. It is the most blatant, yet most rare form of self-destructive behavior. Intentional self-injury, on the other hand, is a means of dealing with others when

the victim is relatively powerless.

Wilson points out that DSH studies have been incomplete because only a few sources of information have been explored. Generally, females display DSH earlier and more frequently than males. The rates of DSH, however, generally decline throughout the life cycle for both sexes.

Suicide attempters are generally depressed at the time of the attempt. The depression is correlated with recent interpersonal difficulties. The modal suicide attempter is a young, lower socio-economic female, who has recently experienced interpersonal problems. Of all the individuals who experience stress and have the relevant demographic characteristics, there are specific factors which differentiate the attempters from those who react in other ways.

These characteristics make them more vulnerable to suicide attempts as a means of coping with stress, as opposed to other techniques such as changing the situation. They tend to be individuals who have learned to rely upon others for help, yet do not know how to ask for help or find themselves in situations where they feel help would not be forthcoming. A person who has been trained to be both dependent as well as passive in seeking help in times of stress might very well attempt

suicide as a sign of anger against those perceived to be the cause of stress.

An alternative motive might be an attempt to tell those surrounding the attempters that the stress is intolerable and that the individual needs help in dealing with it. DSH individuals use their behavior as a means of communication with others when they have few other resources for getting their message across. Given the personality and situational characteristics associated with attempted suicide, it perhaps makes sense that some individuals (females, the young, and lower status individuals) would engage in this behavior. People with these characteristics are relatively powerless to control situations and other people. A deliberate self-harm according to Wilson (1981), is a resource and form of power, which these individuals have to manipulate others.

A question raised by Goldney (1981) was whether young women who attempted suicide could be considered hysterical. He postulated that "the stereotype is that of an histrionic young woman who is making a nuisance of herself and is described as infantile, affectively labile, impulsive, and hysteriform." He studied 110 young women who had attempted suicide by drug overdose and who were admitted to a large city general hospital.

He found, that contrary to expectations on the basis of clinical reports those patients who had attempted suicide were no more hysterical than a comparison group. He argued that these results were in agreement with several others who had employed such instruments as the MMPI and a form of an hysteria scale. However, it should be noted that since the major measure in the study was a self-report hysteria scale, it might be probable that qualitative aspects of an hysteric person may have not come through. Also, it is not a question of whether a group of suicide attempters are on average, as hysterical as a group of non-attempters, but whether some suicide attempters are hysterical and others depressive.

5.2 Parental Deprivation

McConaghy et al. (1966) attempted to elucidate the relationship with broken homes, parental deprivation and suicidal behavior. The first study indicated that from a group of seventy adolescent patients who had attempted suicide and experienced parental deprivation, the deprivation occurred in the first five years of life, which differed from a similar group of non-suicidal patients. The second study, likewise, comparing a suicide and control group, showed that the chief

distinction between the two groups was that the control group had experienced a stable home during the last five years, while the suicide attempters had not. The loss of emotional support is seen, through these two studies, to be significant at either early or late periods. It is also emphasized that the love object may even be lost while physically present.

Family difficulties, as a result of marital problems, separation, divorce, death, physical violence and parental or sibling psychopathology, are particularly prevalent in the homes of children who attempt and commit suicide (Garfinkel & Golombek, 1974; Pfeiffer, 1979). Toolan (1975) looked at 102 children and adolescents who were referred for suicidal thoughts and actions. Less than one-third were living with both parents and one of the parents (usually the father) had been absent from the home for some time.

Shaw and Schelkun (1965) believed the loss of a family member or threat of losing one would probably influence a child in terms of initiating feelings of anxiety and depression and a decrease in the child's sense of self-worth. Therefore marital instability and the separation of family members appears to have a traumatic effect on the children and adolescents.

There have been several studies that have gone

beyond simply describing the separation of the child from the parent and have explored in detail specific dynamics of the situation. Crook and Raskin (1975) suggest that "early separation of parent and child doesn't in itself predispose the child to attempt suicide. Marital discord and pathological family interaction added to separation make the difference" (p.278). This has also been stated in the recent work of Adam (1985) where he says that simply claiming that suicide rates are higher among divorced families does not answer the question. The crucial clue is a better understanding of the events that have led up to the divorce and what happens after the divorce. Acute and chronic family stress also influence the already stressful situation. The social dynamics within a family are crucial whether or not separation is imminent.

Jacobs (1971) discussed suicidal attempts in adolescence as occurring after a longstanding history of problems, a period of escalation of problems, a failure of adaptive techniques, that leads to a progressive social isolation from meaningful social relations, and a final phase of dissolution of any remaining meaningful relationships in the weeks and days prior to the attempt. He drew his conclusions from case study information, interviews and suicide letters of

adolescents.

This information can be applied to the question of life stressors of suicidal adolescents, suggesting that stressors carrying over from childhood seem to be about as frequent as experiencing a whole new set of problems. It appears that both situations may arise when looking at suicidal young people and their life situations. Therefore adolescent suicide could be viewed in terms of life stressors and mediating variables that are factors such as a person's behavioral repertoire, the ability to conceptualize alternatives to life problems, cognitive styles and influential role models. Numerous researchers have indicated that precipitating events related to the adolescent's suicide attempt must be evaluated within the context of the individual's sociopsychological history. The decision of the adolescent to attempt suicide appears to be the combination of longstanding problems as well as the impact of a recent precipitating event. These data thus lend support to the adolescent suicide as a developmental or progressional chain of events as described by Jacobs (1971). Indepth information was collected from adolescents and their parents, usually the mother of the attempted suicides and a control group who were seen at the Los Angeles County General Hospital

Psychiatric Unit.

The biographies of the suicide attempters in contrast to the controls were characterized by a three-stage progression to social isolation which resulted in a suicide attempt: (1) a longstanding history of problems from childhood into adolescence (the time which predispositional problems may be developing); (2) a period of escalation when new problems specific to adolescence were introduced; and (3) a final stage, weeks or days preceding the attempt. The adolescents in the suicidal group did have several experiences in common. Broken homes, fairly constant family conflict, very few meaningful social relationships, previous suicide attempts and a perceived unsolvable problem at the time of the attempt, were experienced by all the individuals. Within a year before the last attempt, 46% of the suicidal patients reported having some contact with a doctor for a mental or physical complaint. This contact with a physician may have been the last resource, outside the family, that an adolescent could have talked about his/her problems. The authors felt this contact was important and suggested that physicians keep this in mind when dealing with adolescents.

The first stage or the "longstanding history of problems," would correspond to the chronic or cumulative

stress believed to be a precursor to suicidal behavior in many adolescents (Pfeiffer, 1979; Schaffer, 1974). These longstanding problems may vary according to the individual and their family but whatever the exact difficulties are they still provide part of the context for the precipitating causes. The problems are viewed by the adolescent as being numerous and serious and they often serve to isolate him/her from meaningful social relationships. As a result of this isolation the individual tends not to contact possible resource people or services that may be able to help with their problems.

The "escalation stage" can be described as a period within the last five years when difficulties usually related to adolescence were experienced. The conflicts were thought to be related to adolescent behavioral problems and parental disciplinary techniques. In the families involved in the study, the more the parents tried to solve the problem the worse the conflicts became. The adolescents perceived their behavioral problems to have begun within the last five-year period before their suicide attempt. The behavioral problems that were used as a way of coping with difficulties included physical aggression, rebellion, lack of affect or withdrawal, avoiding the problem by running away from

home or staying in their room, and psychosomatic sickness as a result of internalizing emotions. The adolescents also perceived that their parents' ways of disciplining them were inappropriate and intervention was often considered as "nagging." The result appeared to be frustration on both sides and an increase in the lack of communication. The adolescents' initial ways of coping with their problems have been found in several other adolescent suicidal groups (Leese, 1969; Eisenberg, 1980).

Schaffer (1974) feels that the crucial factor in the adolescent choice of suicide as a way of coping with stress may be familiarity with suicide. Suicidal behavior may occur and be understood in a group of people who have had previous experience with suicidal attempts. This hypothesis was based on the finding that the rate of suicide is higher in families where suicide attempts have previously occurred. Golombek and Garfinkel (1983) found that more suicidal behaviors were reported for the immediate families and friends of the suicidal group than for the control group. The importance of suicide modeling appears to be increasingly stressed in the literature and more emphasis is being placed on this variable as a predictor of adolescent suicide.

5.3 Social and Emotional Factors

Lester (1966) conducted research on the relationship of sibling position to suicidal behavior. The results suggest that the oldest and the youngest children tend to be overrepresented in a group of adolescent suicidal attempts. He suggests that greater suppression of outward directed aggression and dependency are key factors. Margolin and Teicher (1968) looked at adolescent boys who had attempted suicide and noted some general features of their cases. The boys' mothers had often been angry, depressed, or withdrawn; both before and after their pregnancy, which was usually unwanted. The children frequently experienced some paternal deprivation during the first year of life, usually leaving the son with no strong relationship with a male. There was often a reversal of roles between mother and son when the father was absent. The boys tended to take on the role of the "man of the family." Also, the boys functioned socially and emotionally as husbands of the single mothers, who they felt did not love them. The suicide attempt often came at a time when the mother was depressed and withdrawn, and when the son felt rejected or threatened by the loss of the mother.

Another approach to the study of the suicide's

parental family involved the mother's social participation (Teele, 1965). Surprisingly, mothers of suicides seem to be more socially active, more intelligent, more clear-minded and more understanding than those of non-suicides. Teele argued that the more a person's mother participates in social activity, the more the child is exposed to society's ethics and norms, the more likely the individual begins to turn aggression inward rather than outward.

There appears to be an apparent contradiction between the above cited two studies. In the Margolin and Teicher study the mothers of suicides were depressed and unsociable, consequently forcing their sons into an inappropriate role. In the Teele study, the mothers of the suicides were sociable, intelligent, and understanding. It is probable that the seeming contradiction is due to class differences, which were not reported in either study. Margolin's subjects were likely lower class, whereas Teele's subjects were likely upper class. It might be that the majority of subjects in the Margolin study were referred through government agencies, whereas the subjects in the Teele study may have been referred by private physicians.

Haider (1968) reviewed the case histories of adolescents referred to a hospital psychiatric

department in Scotland during the period 1958 to 1966 after having attempted suicide. The subjects were children and adolescents below the age of nineteen. There were 64 subjects in total (22 males and 42 females). The results noted several variables having had some pertinence to the suicide attempt:

1) Sibling position: Overall the number of the siblings tended to be large; in fact 66% came from families with more than 4 children. A disproportionate number, 20 out of the 56 who were not only children, were first born.

2) Living arrangements: Out of the total 64 in the sample, 32 children were living with both their parents and 32 were either with one parent, relatives, or in institutions.

3) Family structure: Fifty-six of the 64 families had family problems to the point of being labeled "disturbed" and requiring the intervention of professionals. There was also evidence of longstanding history of alcoholism and emotional disorganization.

4) Reasons for attempted suicide: The most common reason was quarrels with the mother, the father, or both. Other reasons given were anxiety about the discovery of sexual activity, detection of truancy, the strain of family problems, anxiety about examinations, mother's health, and loss of a significant friend.

5) Methods used for suicidal attempt: Out of the 64 attempts, 50 of them were by drugs, either alone or in combination. A majority of the 42 girls took drugs as contrasted with the 22 boys, who preferred physical self-harm. Three patients inhaled poisonous gases and 10 used other methods such as slashing wrists, jumping from a window or under a bus.

6) Clinical diagnosis: This included depressive states, behavior disorders, and adjustment reaction to adolescence. Only two were suffering from schizophrenia. Haider concluded that the fact that eldest children outnumber the others may mean that they may be exposed to more stress. Conflicts related to sibling order in position are significant for the eldest, the youngest, and the only child, and in this, children attempting suicide are comparable with delinquent and other behavior-disordered children. The largest diagnostic group was composed of character and behavior disorders. They were described as immature and impulsive children and adolescents who reacted strongly and excessively to stresses of a minor nature. The children were always in conflict with the environment and tended to show hostile feelings towards others.

Tishler, McKenry, and Morgan (1981) also investigated adolescent suicide attempts and important

precursor factors that may have contributed to the act. They argued that studies of adolescent suicide attempts have been characterized by a lack of research sophistication, lack of carefully defined concepts, lack of theoretical models and lack of comparison groups. Data was collected on 108 adolescents, over a two-year period (1977-1979), with respect to their life events, depressive symptoms, and selected demographic variables associated with the suicide attempters. Each suicide attempter was given a psychiatric evaluation, including a mental status examination. In addition, demographic and family background information were obtained (including marital stability and socio-economic status).

The data presented evidence of family disruption in the lives of these adolescents as only 49% of the adolescents were living at home with both parents at the time of the attempt. Twenty-nine percent were living a home with one parent, and eight percent were living with other relatives or friends. Fourteen percent resided in institutions. A high incidence of separation and divorce was characteristic of the parents of the sample. Almost 50% of the adolescents reported that at least one of the parents had been divorced. Also, when asked to assess the satisfaction of their parents' marriage, almost 60% rated the parents' marriage as

poor. Further evidence of family dysfunction is indicated as follows: 18% of the adolescents reported that one or both of their parents had a drinking problem; 22% had parents that had exhibited suicidal behavior in the past. The authors pointed out that these figures, if anything, underestimate the self-destructive behaviors.

In assessing what precipitated the adolescents' suicidal attempt, Tishler et al. found that the most frequently cited reason was parental problems. This response was followed by problems with members of the opposite sex and school problems. Other reasons mentioned included problems with siblings and problems with peers. Only 5% exhibited psychotic symptoms in their suicide attempt (such as disturbances in orientation and thought). It might be likely that the aforementioned parental problems were related to many of the other social problems cited as precipitants of the suicide attempt; that is, an unstable family environment could easily lead to problems with peers, school, and members of the opposite sex.

In summary, the overall findings of the Tishler et al. study indicate that precipitating events related to the adolescent suicide attempt must be evaluated within the context of the individual's social-psychological

history. The decision of the adolescent to attempt suicide appears to be the combination of longstanding problems as well as the impact of a recent precipitating event. These data thus lend support to the adolescent suicide as a developmental or progressional sequence as described by Jacobs (1971).

In a follow-up study, Tishler and McKenry (1981) investigated the parental factors related to adolescent suicide attempts. They argued that research examining adolescent suicide in a family context has indicated an intergenerational transfer of self-destructive behaviors and coping mechanisms from parent to child. According to self-esteem theory, characteristics of parental negative self are related to dysfunctional and ineffective coping mechanisms. Thus, the object of the study was to assess the relationship between selected characteristics of parental negative self (i.e., low self-esteem, depression, suicidal ideation, anxiety, and alcohol use), and adolescent attempts.

The subjects included 92 adolescents between the ages of 12 and 18 who presented at a hospital emergency room. The authors also employed a comparison group of 46 non-suicidal adolescents from the same emergency room. On intake, the adolescent and his/her mother and father were administered a questionnaire. The

adolescent suicide attempters were demographically very similar to the comparison group of non-attempters.

The results of the study revealed that attempters' fathers had relatively lower self-esteem, were more depressed, and consumed more alcohol than non-attempters' fathers. Mothers of the attempters were more anxious, experienced greater suicidal ideation, and consumed more alcohol than mothers of non-attempters. Thus, this study indicates that parents of adolescent suicide attempters differed from parents of non-attempters on variables descriptive of parental negative self. The authors suggest that parents of adolescent suicide attempters present a less favorable model of adaptation and coping with which the developing adolescent can identify. However, it should be noted that the study was of a correlational nature and thus, the subjects' responses might reflect a reaction to the stress of a child's suicide attempt and related problems as much as any longstanding psychological problems reflecting negative self. Although the findings do not pinpoint particular stressor events leading an adolescent to attempt suicide, the study does offer, from the overlooked perspective of the family context, some insight into the development of feelings of negative self among suicidal adolescents.

Garfinkel, Froese and Hood (1982) reviewed admission records from a psychiatric hospital emergency room over a seven-year period and reported that 505 children and adolescents had inflicted self-harm. There were three times as many girls as boys and the boys were younger. Overall there were characteristics in the DSH families that distinguished them from the controls' families. Families that had had a DSH were generally under a great deal of economic stress. Consequently, parents preoccupied with economic concerns may be less able to attend to the concerns of their children. Also, these families showed a great deal of extreme family disintegration. In fewer than half of the reported families were both parents present in the home. The authors pointed out that the limitations of their study are primarily those of a retrospective review of clinical charts. Although the sample was large, there were missing data on a number of variables for both subjects and controls. Also, underreporting probably occurred, especially for the control group.

5.4 Factors in Attempted Versus Completed Suicide in Adolescents

Dorpat and Ripley (1967) attempted to clarify the relationship between attempted suicide and completed suicide by determining the extent to which the two types

of behavior occur in the same individuals. They employed two methods. One method was determining the incidence of completed suicide in groups who had made previous suicide attempts and the second method was determining the incidence of previous attempted suicide in groups who had committed suicide. They collected retrospective data from fifteen major published studies between the period 1945 to 1966. They concluded that the data from those who attempted suicide did not later complete suicide and that a majority of those who have completed suicide did not have prior suicidal attempts. However, a minority did ultimately complete suicide. The authors noted that the suicide rate for those who had attempted suicide was much higher than in the general population.

These results were in strong contrast to those reported by Crumley (1982) who found that for adolescent attempters there were substantively greater risk to actually completing suicide as compared to non-attempters. Crumley concluded that true adolescent suicide attempts should be viewed as a cardinal symptom of a serious psychiatric disorder. He also argued that the seriousness is not necessarily related to the physical lethality of the suicide attempt itself or to the apparent triviality of the circumstances preceding

the attempt. Nor does the seriousness only pertain to certain major diagnoses; the implications of the attempt to take one's own life apply to any disorder. According to Crumley, the seriousness is seen in the degree of inner distress, pain, and anguish experienced by the adolescents.

By examining attempted suicides in adolescents, researchers have sought to find the precursor variables that could differentiate attempters from non-attempters. There have also been continued efforts to examine attempted suicides separately for each of the sexes. Schrut and Michels (1969) explored the dynamics concerning adolescent girls who attempt suicide. For the fourteen girls who were part of the study and attempted suicide, their history was characterized by a chaotic and excessively mobile family. Two-thirds of the families had been disrupted by divorce or separation for prolonged periods of time. Fathers were frequently absent or indifferent to their daughters. The adolescents reported long and bitter clashes between themselves and one or both parents. These were accompanied by the patient's feeling of prolonged rejection for school and social failures, dating habits, unwillingness to perform chores, and inability to please the parents in general. According to the authors, what

was interesting was that the adolescent girl attempting suicide characteristically saw herself as being subjected to an unjust, demanding, and dissatisfied parent or parents. Lack of intrafamilial communication and unreconcilable isolation were keenly felt. Verbal and non-verbal cues toward suicide are then perceived by the adolescent in attitudes of parents or other meaningful adults.

The precipitating cause in the majority of suicide attempts was an acute repeated feeling of rejection by a sensitized adolescent over her alleged failure to fulfill important duties or expectations, or a feeling that she was not loved or understood and was unwanted by her parents following a crisis situation related to failure at school or home duties.

In comparison to the factors that predispose adolescent girls to attempt suicide, Margolin and Teicher (1968) argued that for adolescent boys it seems that friction between the boy's mother and the boy is a common finding.

5.5 Self-Esteem

In addition to the commonly reported demographic and intrafamilial instability, detailed information on the individual's psychological state has been studied. Coopersmith (1967) held that self-esteem is

associated with personal satisfaction and effective functioning. Persons who seek psychological help frequently acknowledge that they suffer from feelings of inadequacy and unworthiness. These people see themselves as helpless and inferior. They are incapable of improving their situations and lacking the inner resources to tolerate or reduce the anxiety readily aroused by everyday events and stress.

Coopersmith defines self-esteem as the evaluation which the individual makes and customarily maintains with himself. It expresses an attitude of approval or disapproval and indicates the extent to which the individual believes himself to be capable, successful and worthy.

Lowered self-esteem among adolescents who deliberately harm themselves has been well documented (Reis, 1984; Davis, 1985; Adam, 1985). Self-destructive, battered adolescents assume they are to blame for the punishment they receive (Green, 1978). The adolescent's self-hatred and low self-esteem increase and become the forces for subsequent self-destructive behavior. It has been found, (Green, 1978), that parents who exert extreme control as well as rejection by requiring high expectations of their child may convey the message that the child interprets as "I'm

no good." The repressed hostility may be expressed as a suicidal gesture or even a suicidal attempt.

Self-esteem is seen as one of several clinical variables which continue to be studied for possible association in self-destructive adolescents. It has been reported by Reis (1984) that children and adolescents receiving treatment in residential centres, typically present with less self-esteem, a poor self-concept and repressed hostility towards important others. More and more, it is these adolescents that are most prone to various forms of self-destructive behavior.

5.6 Depression and Suicidal Behavior in Adolescents

The following are depressive symptoms most often agreed on, according to Kovacs and Beck (1977): 1) dysphoric mood (sadness and unhappiness), irritability and weepiness, 2) low self-esteem, self-depreciation, hopelessness, morbid ideas, recent poor school performance, and disturbed concentration, 3) diminished psychomotor behavior, social withdrawal, and increased aggressiveness, 4) fatigue, sleep problems, enuresis or encopresis, weight loss or anorexia, and somatic complaints. It is well established that the rate of suicide attempts and completions is higher among persons with psychiatric

symptoms and in particular, among depressive individuals. The rise in suicide attempts and completions have been accompanied by a rise in depression. Clinicians have noted an increase in depression in the young adult and post adolescent population since the end of World War II. Among college dropouts, depression has been reported as the most common symptom and it is the most frequent complaint of students who consult university psychiatric services (Goldberg, 1981). Goldberg also states that depression is the most common symptom found among young suicidal attempters. Realizing the positive correlation between depression and suicide, Goldberg attempted to understand how prevalent depressive thoughts are in adolescents who attempt suicide. The results indicated that depressive symptomatology, measures of physical illness, minor psychiatric symptoms, overt aggression, and separation from the mother at an early age related to whether or not these young adults thought about suicide. Goldberg also points that suicide ideation itself has been used as a symptom in the assessment of depression, therefore, it would be expected that the reported relationship exists. However, not all depressed persons think about, attempt, or complete suicide. The similarities reported in the Goldberg study lead one to conjecture that

suicide ideation, attempts, and completions, if not a continuum, might be considered overlapping phenomena. Persons with these different kinds of suicidal manifestations may be essentially equivalent. It can also be hypothesized that persons with all the aforementioned factors may be an especially high risk group for future suicide attempts or completions.

In a similar study, Crumley (1982) reported that the most prominent psychiatric clinical syndrome in adolescent suicide attempters consisted of the group characterized by depressive episodes or depressed mood. Twenty-four patients had symptoms characteristic of a major depressive disorder, i.e., one or more depressive episodes without a manic episode. Fourteen of these patients had a notable history of substance abuse, either marijuana, other drugs, or alcohol. All of these adolescents eventually described themselves as feeling sad, despondent, down, and often as empty, despairing, hopeless, and helpless. Sometimes this was acknowledged during the initial evaluation along with recurring thoughts of dying and wishing to escape intense subjective discomfort through death. Typical statements included the following: "My life was not worth living," "I was tired of life," or "I would be better off dead." At other times a defensive denial of illness, as well as

a temporary lessening of depression following a suicide attempt, led to the minimization of sadness and depression when seen shortly after the attempt. In fact, a constriction of affect of psychic numbing was often seen after the suicide attempt, as if frozen in post-traumatic shock. In treatment this melted away to disclose notable depression. Often it was only in the exploration of underlying feelings during treatment that the adolescent could express the true extent of the depression. Three of these adolescents described transient psychotic symptoms, like delusions and hallucinations. Since these three teenagers had used drugs extensively before hospitalization, there may have been a residual effect of hallucinogenic drugs. However, since there was evidence of a preexisting affective disorder before drug use, an organic affective syndrome was not diagnosed.

In summary, depressive states and suicidal attempts are more common during adolescence than in childhood, but for various reasons they often pass unrecognized (Golombek & Garfinkel, 1983). The clinical features of depression in adolescence are dictated by the adolescent's personality, receptivity, ability for expression, emotionality and intelligence. The depressive state can give rise to a wide range of psychic and somatic symptoms.

CHAPTER 6

THERAPIES FOR INDIVIDUALS AT RISK TO SUICIDAL BEHAVIOR

6.1 Behavioral Approaches of Self-Destructive Children

Keefe and Ward (1981) considered a number of treatment procedures for self-destructive children, based on a behavioral or social learning model. They argued that behavioral conceptualizations of self-destructive behavior differ fundamentally from intrapsychic ones. In the behavioral approach, the development of abnormal behavior is thought to be governed by the same principles and processes that govern the development of normal behavior. Abnormal behavior is viewed more directly as a problem in day-to-day living than as a sign of an inferred trait or symptom of an underlying pathological condition. The behavioral approach emphasizes the current function rather than the historical cause of the behavior.

According to Keefe and Ward, there are five basic elements inherent in any behavioral management program utilized to modify self-destructive behaviors. These are: 1) presenting problems are defined in measurable terms; 2) measurements are repeated over time; 3) treatment is matched to the patient's needs; 4) ongoing evaluation is systematic; and 5) maintenance

and generalization of behavior change is planned.

Self-destructive children are usually identified by either their parents or institutional staff. The definition of the problem is typically done in consultation with one or more professionals. Several steps are typically followed. First, parents or staff members are asked to describe the child's behavior in detail. On the basis of such verbal descriptions it is often easy to pinpoint the relevant characteristics of a particular self-injurious behavior. A second basic element of the behavioral approach is the use of repeated observations. Measurements of the target behavior are taken on numerous occasions before any treatment procedure is instituted. These pretreatment observations form a baseline against which future changes in behavior can be compared. Measurements are usually carried out by those who spend the most time with the child. A practical recording procedure is thus essential (Keefe, Kopel, and Gordon, 1978).

Keefe et al. argue that the use of repeated observations has several distinct advantages. First, it allows for accurate assessment of the level of behavior. Second, such observations help one identify the variability in the target behavior. A third advantage of measurement is that it provides the opportunity to

look for correlations between the problem behavior and the environmental antecedents and consequences. In the important task of matching treatment to child it is necessary to consider not only the definition of the problem and its observed occurrence, but also the resources of the child and his/her family, and the range of available treatments. The child's motivation, mental and physical deficits as well as behavioral strengths need to be considered in planning intervention. A reinforcement survey of the child's favorite activities, foods, adults, peers, etc., is useful in identifying motivators to strengthen new behavior (Cautela, 1977).

Cautela also argues that if a child's self-injurious behavior appears to function primarily to avoid or terminate adult demands, time out from all adult attention is likely to exacerbate the problem. Reinforcement of alternative behavior or contingent aversive stimulation is likely to be more effective. Reinforcement of competing behavior, on the other hand, may be impossible in situations in which extremely frequent self-injury dominates the child's behavioral repertoire. Aversive stimulation may initially be required in such cases. Two broad classes of treatment techniques are used. Those which promote new relationships between overt behavior and consequences

(largely independent of consideration of the individual's internal cognitions and physiological responses) fall under the general heading of contingency management procedures. Those which promote new relationships between antecedent events and behavior fall under the heading of self-control procedures.

6.2 Distress in the Suicidal Child

Garfinkel and Golombek (1974) argued that unlike adults, children do not generally manifest the specific symptomatology of depression. Whereas the typical adult displays depressive symptoms of early morning sleep disturbance, diurnal fluctuation in mood, somatic complaints, and specific feelings of self-reproach, guilt can be seen in late adolescence, and only rarely are these seen in younger people. Several researchers have suggested that suicide in children is often linked to a trivial event which triggers the child's self-destructive behavior. However, a more careful analysis indicates that the seemingly meaningless event did produce an impulsive response in the child, but that there had been an ongoing depressive process that had surfaced only intermittently and had been expressed episodically and behaviorally. There is often a history of appearing sad, withdrawn, and inhibited.

The child expresses an extremely poor self-concept

and has feelings of dissatisfaction, discontent, and rejection. Teachers often report abrupt changes or reversals in classroom behavior. In the young child according to Garfinkel and Golombek, as a result of not understanding the finality of death, self-destruction may be seen as a means of punishing parents or gaining their love and affection. Connell (1971) stated that in Britain, treatment (at times) has consisted of antidepressant medications. There is no convincing evidence, however, that antidepressants alone are successfully therapeutic in children and it would appear that in adolescents, if there is a suicidal risk, the antidepressant medication could be used to overdose. Electroconvulsive therapy is seldom used for the treatment of depression in childhood.

According to Garfinkel and Golombek (1974), the objective of treatment is to prevent the child from using suicide either as a means of expressing his/her thoughts or as a part of his/her repertoire of actions. Treatment, therefore, depends on developing an honest, frank, and nonjudgmental relationship with the child in which the expressions of his/her feelings through play or words would disclose alternative ways of relieving unwanted feelings. This same relationship allows the therapist to become a significant adult in the child's

life and alter behavior through new learning. There is also the provision of a new role model with which the child can identify.

6.3 Cognitive Therapy of Depressed and Suicidal Individuals

Beck (1972) is credited with reformulating the phenomenon of depression from a cognitive viewpoint. This formulation was designed to provide a model for understanding the relationships of the signs and symptoms of the depressive syndrome (e.g., guilt, difficulty in concentrating, low energy level). In addition, the cognitive framework was to provide a basis for a systematic psychotherapy of depression called "cognitive therapy." According to Rush and Beck (1979) the cognitive model postulates three specific notions to explain depression: cognitive triad, schemata, and cognitive errors. The cognitive triad consists of three major cognitive patterns that induce the patient to regard the self, future, and experiences in life in an idiosyncratic manner.

Beck (1972) explained the cognitive triad of a depressed person in the following way: The first component of the triad revolves around the patient's negative view of himself. The patient sees himself as defective, inadequate, or unworthy. The patient tends

to attribute unpleasant experiences to a physical, mental, or moral defect in himself. The patient believes he is undesirable and worthless because of his/her presumed defects. The patient tends to underestimate or criticize himself/herself because of these thoughts. Finally, the patient thinks that he/she lacks the attributes essential to attain happiness and contentment.

The second component consists of the depressed person's tendency to interpret his/her ongoing experiences in a negative way. The patient sees the world as making exorbitant demands and/or presenting obstacles to reaching the patient's life goals. The patient misinterprets his/her interactions with the world in general as evidence for defeat or deprivation. These negative misinterpretations are evident by observing that the patient negatively construes situations even when less negative, more plausible, alternative interpretations are available. The depressed person may realize that his/her initial negative interpretations are biased if persuaded to reflect on these less negative alternative explanations. In this way the patient can come to realize that the facts were tailored to fit his/her preconceived negative conclusions.

The third component consists of a negative view of the future. As the depressed person looks ahead, he/she anticipates that current difficulties or suffering will continue indefinitely. The patient expects unremitting hardship, frustration, and deprivation. When he/she thinks of undertaking a specific task there is a constant thought of failing. The cognitive therapist, considers the other signs and symptoms of the depressed syndrome to be consequences of the activation of the negative cognitive patterns (Rush and Beck, 1979). For example, if the patient incorrectly thinks he/she is being rejected, there will be a tendency to react with the same negative affect (such as sadness or anger), that occurs with the actual rejection. If the patient erroneously believes that he/she is a social outcast, there is a tendency to feel lonely.

The motivational symptoms (e.g. paralysis of will, escape and avoidance wishes, etc.), can be explained as consequencs of negative conditions. "Paralysis of will" results from tbe patient's pessimism and helplessness. If the patient expects a negative outcome, there is a strong possibility that he/she will not commit to any goal-oriented task or major undertaking. Suicidal wishes can be understood as an extreme expression of the desire to escape from what appears to be insolvable

problems or an unbearable situation. The depressed person may see himself/herself as a worthless burden and consequently believe that everyone will be better off if he/she were dead.

6.4 Techniques of Cognitive Therapy

Cognitive therapy is a short-term, time-limited psychotherapy, usually involving a maximum of twenty sessions over ten to twelve weeks. Rush, Khatamic, and Beck (1975) have suggested that treatment of the suicidal individual should always be geared to understanding the source of the depression. They argue that since some form of depression is common to most suicide attempts, elucidating the depressive factors could ultimately lead to less suicide attempts.

The therapist, in cognitive therapy, actively directs the discussion to focus on selected problem areas presented by the patient. Questioning is frequently used to elicit specific thoughts, images, definitions, and meanings. In essence, the patient's thoughts are treated as if they were hypotheses requiring validation. During this validation process (often conducted as homework), the patient needs to clearly understand what beliefs or ideas (hypotheses) are being tested and, therefore, must understand the

purpose of each homework assignment. Technically, according to Rush and Beck (1979), cognitive therapy may be compared to a scientific investigation: 1) collecting data that are as reliable and valid as possible; 2) formulating hypotheses based on the data; 3) testing, and, if indicated, revising hypotheses based on new information. The data consists of the patient's "automatic thoughts," feelings, and wishes (Beck, 1963). These automatic thoughts or cognitions are collected as oral or written reports from the patient. The therapist accepts these cognitions as truthful (although not necessarily accurate) representations of reality, since the basic premise of the cognitive theory is that the depressed person negatively misrepresents his/her experiences. First, the therapist tries to elicit automatic thoughts surrounding each upsetting event. The therapist tries to obtain specific evidence for or against the patient's potentially distorted or dysfunctional thinking by questioning the patient about the total circumstances of a particular event.

Secondly, the cognitive therapist helps the patient to identify or infer the assumptions or themes in the recurrent negative automatic thoughts. For example, such a theme might be "expecting to fail" or "reading rejection into certain situations." The therapist helps

the patient to see that such a belief may not necessarily reflect reality. For example, the therapist would use logic, persuasion, and evidence from the patient's current and past functioning to get the patient to view a belief (e.g., "I am unable to learn"), as an idea or hypothesis requiring validation rather than as a belief.

Thirdly, the cognitive therapist teaches the patient to identify specific errors of logic in his/her thinking (e.g., arbitrary inference, overgeneralization, etc.). Learning to recognize and correct these errors helps the patient to repeatedly assess the degree to which his/her thinking mirrors reality.

In summary, cognitive therapy tehcniques are designed to facilitate changes in specific target symptoms found in depression. According to Beck (1972) in the case of suicidal individuals, the therapist modifies the therapy sessions so that the patient's automatic thoughts of wanting to kill himself/herself are addressed. The initial sessions for treating the suicidal individual involves monitoring behavioral changes; typically involving interaction with the individual's immediate environments (peers, family, and school). In the course of such changes the patient learns to monitor and recognize his thinking in regard

to his/her behavior or activity. Rush and Beck (1979) argue that this early emphasis on behavioral objectives is based on their recognition that the severely depressed patient is often unable to engage in cognitive tasks because of difficulty in abstract reasoning. As the depression lessens, concentration improves and the intensity of the affect decreases. In subsequent sessions, the assumptions supporting these cognitions are identified and subjected to empirical validation through numerous types of homework assignments (Beck, 1972).

6.5 Psychoanalytic Treatment of the Suicidal Individual

The third major mode of treatment is that of the psychoanalytic perspective. Menninger (1938) pointed out that all psychotherapy depends upon the principle that the conscious intelligence, that part of the personality which is called the ego, is capable under ordinary circumstances of handling the instinctual forces with a proper regard for opportunities afforded and for the prohibitions imposed by the world of reality. In the person needing psychotherapy, the ego has to some extent been overwhelmed, either through its own weakness or through the disproportionate strength of the instinctual drives or of the conscience or superego.

Psychotherapy, therefore, is directed toward strengthening or expanding the ego and restricting or modifying the harshness of the superego (Warren, 1983).

According to several psychoanalytic theorists including Menninger (1938) and Warren (1983), the first step in psychotherapy is the establishing of some degree of rapport between the therapist and the patient. There must be some positive emotional reaction created. As noted by Menninger (1938), all psychotherapy depends on its effectiveness on the extent the therapist is able to give the patient something that usually takes the form of emotional nurturance. Thus, by means of a guided relationship, an intellectual and reorientation of the patient is made possible; so that the ego (strengthened, expanded, made more elastic), is enabled to handle the otherwise unmanageable components of the personality more efficiently. In addition, reduce the tendency of self-destructive behavior and increase the capacity for living.

One virtue of the psychoanalytic method of therapy is that this transference is manipulated deliberately according to scientific principles which have been accumulated by observant experience. Lesse (1974) argued that the same thing is frequently accomplished in nonanalytic psychotherapy on the basis of intuition and

experience; in this type of therapy the therapist does most of the talking, or at least plays the active role in the treatment. This is exactly opposite from what is obtained in psychoanalysis. In either case the object is the emotional reorientation of the patient; the intellectual reorientation may both precede and follow. In nonanalytic psychotherapy it must precede.

Menninger (1938) outlined available techniques in the use of psychotherapy for suicidal individuals and they are as follows: Usually the first step, once the transference has been established lies in the direction of giving the patient greater insight into the reality of, and then, the precise nature of his self-destructiveness. There are innumerable ways to do this but in essence they consist in a comparison of the objective and subjective conceptions of the patient's behavior situations attitudes or moral standards; in such a manner as to show the patient in just what way he/she is really different from others and in what ways he/she is not different. This is not done with the idea of making the patient conform to a hypothetical normality but to allow some anxiety about himself/herself which has risen on a neurotic basis and to substitute for it a more objective concern which arises when the patient considers the extent and

seriousness of the problem. The excess of the latter is, of course, largely dependent upon the former. Depending on the nature of the case, the responsibility for accounting for the differences may be explained by the patient or the psychotherapist, or may for practical reasons be disregarded.

Along with this, sometimes implicitly, comes a clarification of the purpose and motives involved in particularly troublesome situations or conflicts. Usually this leads to contrasting the conscious intention and the unconscious intention implied by the outcome. An opportunity to verbally interact is sometimes sufficient to accomplish this automatically; often however, it requires considerably more catharsis and more investigation. Next, Menninger points out, is the recollection of signalization of, or emphasis upon neglected considerations. These may be either reality factors which the patient does not take into consideration, consequences which the patient has failed to anticipate, aggressions which he/she does not recognize and memories which have been repressed.

When these various elements are seen as a whole, a new self-estimate of the personality is possible. A new strength is given to the ego because of the possibility of relinquishing defensive aggressions no longer

necessary, and the development of previously inhibited erotic investments is made possible. In summary, all of this leads to constructive planning for the future in a more expeditious way. At this point, also, a substitution of various active gratifications may be made by directive or non-directive prescription.

Mayer (1971) reported that in every suicide or suicidal gesture, there are two invariable factors; anger and despair. They may be present in very different proportions and they are frequently related to each other. Mayer, however, admits that in treating suicidal patients there is no attempt to distinguish between the serious and the non-serious, nor try to evaluate a suicidal attempt as real or only histrionic. Mayer prefers treatment that encompasses a threefold psychoanalytic approach:

1) Interpretation of the aggressive component in the suicide wish.

2) A positive demonstration of genuineness, empathy, and concern on the part of the therapist.

3) Respect for the autonomy of the patient, which includes a genuine acceptance of the proposition that the patient has the right to be the final arbiter as to whether he/she is to live or die.

Mayer goes on to say that in most cases, when

dealing with a suicidal patient, the interpretation of the anger is of primary importance. Such interpretation may be easy or difficult to get across. This depends on how close it is to consciousness (Freud, 1925). Not infrequently the main target for the patient's anger is the therapist. Sometimes the anger is overt and may be expressed as a threat. The usual reaction is for the patient to deny it. Mayer concludes by stating that any person contemplating suicide feels alone and impotent. The loneliness may have to do with the patient's real situation, but it is usually based on the patient's conviction that he/she is too unworthy as a person. The impotence has to do with the patient's suppressed anger against those, in the past and present, who have caused disappointment in the individual's life. In making the patient more aware of the anger and in helping the patient face it, the therapist may convince the patient (perhaps for the first time) that acceptance is possible in spite of the patient's rage and hatred. This is not only useful in counteracting the suicidal wish, but it is sometimes a turning point in therapy.

6.6 Group Therapy with Suicidal Individuals

Farberow (1968) has argued that group psychotherapy is a procedure of choice for certain suicidal patients, since it would automatically require interacting with

others. If the suicidal patient is appropriately seen as an unhappy, emotionally disturbed person whose relationships with others have become so strained that the individual seeks a resolution which is frequently all too final, then group psychotherapy would be seen as the catalyst in allowing the suicidal patient to reverse the withdrawal and escalation which are all too common with these patients. A primary treatment goal of such a person is the reestablishment of feelings of belonging.

The beginning of the development of special group forms of therapy exclusively for suicidal and depressed persons dates back to 1966 when Indin described a group experience for suicidal patients. In the intervening years the efficacy of this treatment modality has been documented, yet, as pointed out by Hackel and Asimos (1980), it has been slow to take hold in mental health settings. Part of the problems with the development of group therapy as a mode for suicidal patients especially in mental health institutions are the following resistances raised within the institutional structure and reported by Hackel and Asimos:

1) Will a group of depressed and suicidal patients have an adverse effect on one another, as well as on the therapist(s)?

2) Will these manipulative patients play off one therapist against the other?
3) Since suicide attempts are often statements to "significant others," why not treat patients in couples' therapy (where applicable) rather than group?
4) Why should these patients be grouped together, since suicide is not a diagnostic entity?

Several researchers have argued that these commonly held myths concerning working with a suicidal population have tended to slow work in that area. They stress that rashes of suicides are not precipitated by hearing another discuss suicidal feelings. In fact, Alfaro (1970) reports that group members who have experienced similar feelings can serve as models of control and empathy to the temporarily suicidal person. This experience serves to provide a feeling of community and gives a sense of accomplishment to the group who are presently in control of their impulses.

Secondly, while these patients may occasionally use the therapist against one another, the more important issue is that many of these patients, according to Alfaro, develop psychotic transference and become so frightened of the intensity of their feelings that they want to (and often do) drop out of individual work. Thus the group setting with its emphasis on support and

the opportunity to dilute the intensity of the feelings, offers tha patient a chance to remain in a therapeutic setting while in the sway of intense, and hostile feelings directed towards the therapist (Hackel & Asimos, 1980).

Thirdly, the group allows the suicidal patient to engage in treatment without the fear of being considered or labelled "deviant" for their suicidal feelings and experiences. Farberow (1972) commented on the framework surrounding one type of group therapy employed. It was referred to as an insight-oriented group. The procedures developed seem to be more like the Adlerian than like the Freudian or neo-Freudian schools. Spotnitz (1971) has suggested that Adlerian therapists view their group members as social beings whose behavior is purposive and directed to social survival with additional emphasis on self-realization.

> "Through interpretation of phenomena observed in group sessions, particularly the social aspects of patients' problems, the therapists bring them into awareness and encourage the patients to improve, recognize and correct value systems that go against desirable social functioning. Therapy is primarily an educational process in which emotional experience reinforces intellectual learning. An atmosphere of social equality and mutual helpfulness is created to counteract fears, anxieties, and emotional isolation. Intrapsychic dynamics are explored and understanding is communicated but more emphasis is placed on social reorientation than the counteracting of

> fears. The goals are to increase the patient's self-respect and self-confidence and to enhance the patient's worth in ability to grow (Spotnitz, 1971, p.86)."

Farberow (1972) lists some unique aspects of working with suicidal people in a long-term insight-oriented group. The most obvious difference is the fact of suicide; an identifying and unifying characteristic for each of them. Because it has concerned death there is already the bond of sharing on a feeling level, this most intense of experiences. The issue of suicide also seems to make for a cohesive group much more quickly. New patients are immediately accepted and there is little evidence of resistance or exclusion. Not only are there no prohibitions, but members are encouraged to meet and socialize outside the group. Many of the patients readily admit to their suicidal feelings, without any rejection or denial from the other members. The group is often aware of the underlying depression and helps bring out the issues around it through peer confrontations. Silences in the group which act as resistences are interrupted by the therapist(s) and information is sought about what is occurring in the lives of each patient.

Farberow notes that one of the most difficult problems for most suicidal people to handle is separation or loss. This is reflected when one or more

members decides to leave the group. This usually produces anxiety, fear and anger in some of the remaining members. The group then becomes a vehicle for these people to work through these issues. The typical composition of these long-term insight-oriented groups, consists of patients who have been suicidal and have had recurrent depression and/or agitated periods in which impulses or tendencies toward suicide have been strong.

6.7 Family Therapy for Suicidal Individuals

6.7.1 Children and Adolescents at Risk.

Richman (1981) contends that all modern understanding of suicide is built upon the pioneering contributions of Freud (1925) and Durkheim (1897). Freud for the understanding of the individual, including the vicissitudes of drives and object relationships, and the ego changes attendant upon suicide, and Durkheim for his masterful contribution to the sociology of suicide, which has major implications for the social and family systems approach to treatment. The essence of Durkheim's theory is condensed in his summary; "Suicide varies inversely with the degree of integration of the social groups of which the individual forms a part" (1897, p.209). With a shift in emphasis, this formulation can be applied to the suicidal individual: Suicide varies inversely with the degree of

integration between the individual and social groups of which that individual is a part. Therefore, whatever fosters social alienation contributes to suicide, given certain facilitating conditions, while whatever fosters social cohesion contributes to life rather than suicide.

While Erikson (1950) did not deal directly with the problem of suicide, his description of the eight stages of man has provided a host of fruitful clinical insights into the concrete internal and external pressures and crises that have impelled persons towards suicidal acts at different periods in their lives. By and large, suicide in the child and adolescent can be best understood as an interconnected reaction to developmental tasks and family pressure (Richman, 1981). In the child, the major developmental tasks include the establishment of interests outside the home, especially in school and peer relationships. The capacity for future intimacy may be laid down at this time (Sullivan, 1953).

The developmental demands of adolescence call for still more expanding horizons; the establishment of autonomy and a clear ego identity; the development of friendships outside the home; sexual relationships; the achievement of success at school and the beginnings of a career. These events are typically occasions of

pleasure to most families. However, they are experiences of deep pain and the threat of loss to some. Richman claims that such families see the outside world as an enemy and set up protective barriers to shield themselves. The family thus becomes a closed system and tries to avert the necessary changes of adolescence.

The family then is at risk at the time the troubled adolescent becomes suicidal. In a series of studies by Rosenbaum and Richman (1970) the following characteristics are noted as typical of the family at the time of a suicidal crisis in one of its members:

1) An inability to accept necessary changes, including an intolerance for separation, symbiosis without empathy, and infantile fixations.

2) Role disturbances.

3) Affect disturbances, including a one-sided handling of aggression, a family-based depression, and sexual difficulties with incestuous overtones.

4) Interpersonal difficulties that include a reliance upon scapegoating, double-binding, and sado-masochistic relationships.

5) A closed family system which is dominated by a fragile family member.

6) Communication disturbances.

7) An intolerance for crises.

It follows from the above discussion that family therapy allows the opportunity for cohesion with the suicidal person's primary group. Family therapy is consistent with the Durkheimian emphasis upon social factors. It is also compatabile with Freud's formulation. Through family therapy there is a major opportunity to help activate the ego reparative functions of the suicidal individual, arrest and reverse the regressive processes of the instinctual drives and object relations. It also helps alleviate the melancholia that occurs in suicidal persons which is intimately related to alienation (Rosenbaum and Richman, 1970).

A comprehensive individual and family assessment is required for evaluation of suicidal potential, as well as planning for treatment and management. The most effective procedure is first to interview each family member alone in order to obtain his/her individual perception of the situation, establish rapport, and invite the family member to continue to collaborate (Richman, 1979). It is desirable to see the patient and his/her family as soon as possible after the suicide attempt or the onset of suicidal impulses. Making use of typical crisis intervention procedures include: determining the degree of suicidal risk that may still

be present; deciding upon the disposition including the question of whether to hospitalize or treat on an outpatient basis; identifying the major crisis or crises that precipitated the suicidal situation and selecting the most effective intervention.

Some general considerations in the family treatment of suicidal patients are highlighted by Pfeiffer (1982) include:

1) Timing is of the essence. In particular, premature efforts to separate or interrupt a longstanding symbiotic relationship, no matter how pathological, can precipitate another serious crisis or even actual suicide. The therapist must proceed at a pace the family and patient can tolerate.

2) It is essential that the therapist avoid all blame or scapegoating, no matter how disruptive the family members may be.

3) Finally, family therapy of the suicidal person is characterized by particular and predictable processes. It begins with blaming and scapegoating and is followed by a period of quiescence and reduced anxiety, during which time the suicidal child or adolescent begins to function more effectively at school, with peers, or at work.

Then the family, including the suicidal patient,

seems to realize what is happening. Often the result is a crisis in therapy. A period of resolution and acceptance usually follows. In the later stages, the therapist becomes more active and interpretation, prescription of homework assignments and other forms of interventions typically follow. Pfeiffer concludes by saying that the therapist involved in family therapy acts primarily as a catalyst who helps precipitate and maintain the healing process intrinsic to the patient and family.

6.7.2 Specific Issues in the Treatment of Adolescents. Schrut and Michels (1969) report on the treatment of a group of fourteen female adolescents who attempted suicide. The most frequently used method was drug ingestion. Most of the girls came from unstable families and there was typically a history of strife between the parents and between at least one of the parents and the child. These girls saw themselves as rejected and had in many cases received the message from their parents that things really would be better if they were not around.

The mode of treatment focused on initially establishing a strong therapeutic alliance. To facilitate this, Schrut and Michels recommended seeing

the adolescent first before talking to the other family members. Therapy involved environmental manipulation as well as insight-oriented interviews. A family focus is necessary, even when family members are not seen as a group. In individual therapy the patient is helped to see how parents have exerted a destructive influence on his/her life, but as treatment processes, the patient is increasingly encouraged to take responsibility for their own attitudes and actions. Schrut and Michels feel that a major obstacle to successful treatment is the client's unwillingness to give up immature desires for excessive power and importance.

Many of the factors that make adolescents difficult to treat are especially problematic in the treatment of suicide. Their "now" orientation coupled with the tendency to communicate through action rather than words increase the risk of impulsive suicidal behavior. Ambivalence about dependency and fear of rejection both work against establishment of the interpersonal trust that is so important in reducing suicide potential.

Motto (1975) describes the initial work with the suicidal adolescent as a mixture of both assessment and treatment. Motto, like Schrut and Michels, argues that the prime objective is the establishment of a relationship that will support further therapeutic work.

Motto advocates using an indirect approach in assessing motivating factors for the suicide. He feels that direct questioning of why the attempt was made, is often perceived by the adolescent as accusatory. Further, in the process of eliciting information about school, social life, and family, the therapist can usually clarify the origins of the self-destructive impulse. Once the client develops a sense of being able to depend upon the therapist for emotional gratification, the therapist can begin to make demands for therapeutic work. The focus should be on overcoming the unique stresses being experienced by the adolescent. These often include such things as anxieties about sexual identity, anger towards parents, and low self-esteem. The family should be involved in both assessment and treatment. Contact with other family members can help clarify motivations for the suicide. They can also assist with removing possible instruments of suicide from the home environment. Also, they can be involved in efforts to change their own behaviors that may be directly related to the child's low self-esteem and feelings of despair.

Motto lists a number of specific guidelines in the treatment of suicidal adolescents:

1) Use an inpatient treatment setting until it is clear

that the continued risk of suicide is reduced. Motto suggests that when handled properly, hospitalization gives a clear message that a cry for help has been heard and is being taken seriously.

2) Be cautious in accepting the patient's reassurances that he/she will not make further suicide attempts.

3) If treatment is to be undertaken on an outpatient basis, make certain that appointments are scheduled without delay.

4) Be flexible about scheduling, especially in the beginning, even if it means allowing the client to be somewhat manipulative.

5) Foster a variety of relationships in addition to the therapeutic alliance.

In summary, Motto describes assessment and treatment with suicidal adolescents. He also provides specific guidelines for managing the therapeutic relationship. He points out the value of using an indirect approach in assessing suicidal motivation and emphasizes the need for building a strong therapeutic alliance to support subsequent therapeutic work. Although using an indirect approach is probably beneficial in promoting the therapeutic relationship, there are times when direct questioning is also needed. The therapist must certainly engage in some fairly

direct questioning about suicidal ideation and suicidal plans. There are times when direct questioning may be a prerequisite to the establishment of a working alliance.

In summary, intervention for adolescents at risk for suicide should have clearly defined goals and coordination between all allied professions involved in the treatment process. Decisions about inpatient and outpatient therapies should be made in consultation with the adolescent's guardians or parents.

CHAPTER 7

STATEMENT OF THE PROBLEM

It has been argued quite convincingly by Maris (1981) that suicide can be thought of as resulting from an inability or refusal to accept the terms of the human condition. Rather than viewing suicide as simply a reaction to a short-term or time limited crisis, Maris in developing his concept of suicidal careers chooses to study the individual's entire life experience. Maris lists the possible factors in being responsible across a suicidal individual and makes predictions on the basis of these. In an attempt to distinguish the suicidal careers of young and older suicides both on social and individual factors, Maris (1985) reanalyzed his sample of 266 Chicago suicides and selected out the files of all completed suicides who died in their teens or twenties (N=36). His results showed that younger suicides were similar to older suicides (and different from natural deaths) on the following factors: (1) on levels of depression and hopelessness, (2) the use of a gun in attempting suicide, (3) having few close friends, and (4) conceiving of death as an escape from life's problems. He found that both young and old suicides were exposed to repeated stress, longstanding problems,

and suicidal careers with progressive failure of their adaptive repertoire. They were more likely to be mentally ill and more often social misfits and experience more negative social interaction. Maris also reported that there were a group of traits in which the young suicides reported more frequently than the older suicides and these included abuse of alcohol and drugs, modelling their suicides after other suicides, low self-esteem and early object loss.

Ideally, an attempt to replicate and also add to Maris'(1981; 1985) works should be undertaken. The focus would be to examine a group of adolescents who have attempted suicide compared to a group of adolescents who had not attempted suicide.

Based on the work of Maris (1985), an ideal study would attempt to further elucidate the mechanisms and factors that may influence the development of this suicidal career among adolescents. Specific focus would be given to re-looking at Maris' (1985) findings of his young people, specifically, suicidal young people tend:

(1) more likely to be females,

(2) to have made multiple suicide attempts,

(3) to be more interpersonally motivated (e.g., involving especially relationships with parents, peers, and lovers,

(4) are more revenged directed and more based in anger and irritability,

(5) have more multi-problem families of origin (e.g., more suicide in their family and more divorce of their parents),

(6) are less likely to have worked and have fewer financial resources,

(7) use more drugs and tend more to drink to excess,

(8) are more the product of feelings of prolonged uselessness, social postponement and social disenfranchisement from meaningful participation in valued life activities,

(9) have more intense deep feelings, more aggressive and neurotic energies,

(10) tend to be more romantic and idealistic,

(11) are less emotionally independent,

(12) have a less fully developed and defined sense of personal identity and lower self-esteem,

(13) are more affected by the recent decline of common social goals and the corresponding increase in pluralism of values,

(14) are more likely to be risk takers with greater impulsivity and higher levels of dissatisaction with their life accomplishments.

7.1 Conceptual Hypotheses for the Present Research

The original aim of the present research was to examine more closely the concept of a suicidal career as applied to adolescents. The specific set of hypotheses formulated by Maris (1981) were used to probe the possible set of early life events that could be related to the inception of this suicidal career. "Where and at what point does a suicidal career begin?" was an essential question asked in the initial design of the present research. "What effect does early loss have in possibly influencing this suicidal career?" was another question asked.

It is well-documented from the literature that the rates of completed suicide tend to be bimodally distributed. That is, the first peak occurs for the young (15- to 24-year-old range) and the second peak occurs for the post 55-year-old (predominantly in males). Maris (1981) almost exclusively investigated the individuals who fell into the latter range (the post fifty-five). As yet, he has not extended his hypothesis of a suicidal career to include the first category. Maris (1985) attempted to do so, but the limited size of the sample, the mean age, and the disproportionate number of males over females, leave his conclusions in some doubt. If one wants to hypothesize the notion that

the suicidal career of an individual may begin in adolescence, then one needs to study a group of adolescents exclusively. This was the initial aim of the present research; to examine the possible beginning of a suicidal career through negative early life events, such as loss and neglect in adolescents.

Four groups of adolescents were proposed:

1) The first group would consist of adolescents, both males and females, not presently at risk to self-destructive behaviors. These would have been the adolescents within the community at large, who would show no past suicide history and no present suicide behavior, as determined by a preset criteria.

2) The second group of adolescents proposed were to come from a population who would be at risk to self-destructive behaviors, but as yet not made any deliberate self-destructive acts. A preset criteria would once again determine these individuals.

3) The third group of adolescents would have been similar to the second group, but the adolescents in this group would have had actually made self-destructive acts and these acts would have been recorded.

4) The final group proposed was a group of adolescents who had actually completed suicide and their information contained within the Provincial Coroner's Office.

The rationale for the above continuum of groups rests on viewing the present research design as paralleling a longitudinal analysis, which could not have been carried out under existing circumstances. Initially, an attempt was to focus on the developmental, social, psychological, and emotional histories of the specified groups of adolescents, as well as current psychological, cognitive, social and emotional states, as measured by direct suicide scales, clinical interviews and observation while in their school and home environments.

Unfortunately due to ethical policies and rejection of the initial proposal, two of the four groups were eliminated from the study. The remaining groups were both from within residential treatment facilities and were adolescents at risk of DSH acts who had not, as yet, made such a gesture and adolescents who had made acts of DSH. Regretably, the group of adolescents in the community and the group of adolescents who had completed suicide were eliminated.

Initially, several suicide scales, and suicidal behavior checklists were proposed in order to study the two remaining groups. In addition, standardized interview formats were designed and observations of the adolescents interacting with peers and adults were

proposed. The procedures were all rejected by the governing bodies, who argued that the proposal instruments could possibly sensitize the adolescents to making acts of self-harm.

Approval was given to study these adolescents through indirect measures. The final set of instruments employed in the present research were all standardized tests which are appropriate given the nature of the population. These tests are discussed in a later section, but it is important to note that all the tests employed have reliability and validity coefficients which suggest that they adequately measure what they purport to measure.

In summary, the present research employed both life history information and psychometric tests in a group of emotionally disturbed adolescents. Two groups were studied: one group of adolescents who had not made acts of DSH and another group who had made acts of DSH. The present study involved two phases. Phase 1 consisted of individual administration of several psychological tests to all of the subjects that participated. Phase 2 involved examining the case files of each of the forty subjects. The study therefore focused clinically on the current level of psychological, emotional, and cognitive states and obtaining information on early life events

that may ultimately have an effect on the development of a suicidal career in adolescents.

7.2 Method

7.2.1 Subjects

A sample of 40 adolescents took part in the present study. They were all residents of either the William Roper Hull Home or Wood's Adolescent Care Centre. Both of these facilities are located in Calgary. They are both residential and community treatment centres for young people who are experiencing emotional problems. Both facilities provide intensive individualized treatment for young people and their families with specialized physical/psychosocial needs. Individual therapy, residential treatment, and special education are combined to generate an individually tailored treatment plan enabling the young person to regain, maintain, and enhance a sense of well-being with significant others and with the community. The length of stay varies between eight months and five years. In the present study the age range was from 13 years to 17 years with the modal age being fourteen. There were a total of 31 boys and 9 girls involved as subjects.

The criteria for subject selection to the DSH group were the following:

1) At least one fully documented DSH within the last year. This information was usually made available through the agencies use of a standard form typically referred to as the threat of self-harm report.

2) A fully documented history of either a past DSH or at least validation from two independent sources that there was past evidence of DSH from the subject's life history.

3) Documented evidence from at least two different professional sources (such as social workers, foster parents, therapists or child care workers) in the subjects' files that there is currently a degree of suicidal thinking (the wish to die), and expressed ideas of these thoughts increasing in severity.

7.2.2 Selection of Subjects

Both agencies provided a master list of possible subjects who they felt were appropriate to the study. Letters of consent were sent to the parents and/or legal guardians for each adolescent. Both agencies had the authority to exclude subjects if a client showed at the time; intellectual retardation, had a physical handicap, neurological damage or an identified severe psychiatric condition (i.e., in a state of acute psychosis).

Table 1 shows the actual number of letters of consent sent out, the number of letters returned, the number of letters giving consent to allow the subjects to participate and the number of letters that were not returned or not in agreement, from each agency.

At the time, Wood's Care Centre had a total client inpatient population of 82 and William Roper Hull had a total inpatient client population of 72. The actual number of letters sent out for consent was 54 and 34, respectively, which accounted for 66% and 47%, respectively, of the total population.

The small number of girls in the present study is due to the nature of the population at the two centres as both centres receive more referrals for boys than for girls.

The three subjects who did not want to participate in the study were all in extended timeout procedures, typically implemented when a client has just returned from running away or AWOL, from the centres.

In accounting for the low response rates in the two residential centres, the major reason was the considerable time delay in attempting to gain ethical consent from the University, the two residential agencies, and the legal guardian (which may have included the social worker, the director for children's

guardian, the Office of the Solicitor General, Alberta Mental Health and the adolescent's parents).

Table 1 - The Number of Letters of Consent Sent Out, Returned, Agreed and Not Agreed, for Each of the Two Residential Centres

	Woods	Hull Home
Number of letters sent out	54	34
Number of letters returned and agreed	36 (67%)	13 (38%)
Number of letters returned and not agreed	10 (18.5%)	21 (62%)
Number of letters not returned	8 (14.5%)	0 (0%)
Number of subjects actually participating	27 (50%)	13 (38%)
Number of subjects not wanting to participate	3 (5%)	0 (0%)

7.3 Instrumentation and Procedure

The present study was conducted in two phases. Phase 1 involved the individual administration of seven psychological tests to the 40 subjects. Phase 2 involved scrutinizing the case files of each of the 40 subjects and recording the pertinent data relevant to the study.

7.4 Phase 1

The school facilities in each of the agencies provided the setting for administration of the psychological tests. The total amount of time required to complete the psychological tests was sixty minutes. The tests were collated and administered individually to each subject, by the principal investigator.

7.4.1 Rationale for Selection of the Psychological Tests. The selection of the specific psychological tests was, in part, based on the need to examine more closely, specific differences between a group of adolescents who had deliberately harmed themselves and a group of adolescents who had not harmed themselves. Reis (1984) has noted that children and adolescents in residential treatment facilities require special attention when being assessed. Their attention span may be less than other children or adolescents their age in the community. Their motivation may be affected by

their current state of emotional upheaval and therefore performance may be affected. Tests should be geared to keeping these factors in mind and wherever possible be short, not verbally loaded, structured and have a degree of novelty to them since many of these children and adolescents have been repeatedly tested in other areas.

In Phase 1 the following tests were individually administered by the author to each subject that agreed to take part in the study. These were:

(1) Short form of the Minnesota Multiphasic Personality Inventory (MMPI). The 122-item questionnaire provides an objective assessment of some of the major personality characteristics that affect personal and social adjustment. The inventory consists of four validity scales and ten clinical scales. Since the entire MMPI may be seen as too cumbersome to give to a group of emotionally disturbed adolescents, Devries and Farberow (1967) conducted an item analysis of the MMPIs of suicidal and nonsuicidal neuropsychiatric hospital patients. They reported that a 52-item scale based on the larger MMPI version could differentiate between the threat of suicide group and all the other groups. They also reported that the scale provided possibilities for increased understanding of suicidal activity.

The interval (odd-even) reliability coefficient of this 52-item scale was reported to be .68 above the cutoff score of 20. The effectiveness of this scale was reported to be .58 (validity coefficient) when applied against the complete MMPI. Therefore the 52-item scale was given to each of the 40 subjects and was relatively quick since the questions are a true or false type. Based on the previous work of Devries and Farberow (1967) specific hypotheses could be generated. The subjects in the DSH group would be expected to have a higher score than the subjects in the no-previous DSH group.

(2) The Frost Self-Description Questionnaire (FSDQ). The questionnaire consists of 107 items which are judged by each student as usually 'true' or 'false' about themselves. The items form eight types of anxiety scales, three aggression scales, and three types of defense, as well as buffer items. The FSDQ was designed as a screening device to indicate the degree of general emotionality and the areas in which a student has concern (the type of anxiety), the degree to which denial is used as a defense, the level and type of aggression (externalized, internalized or projected), and the degree to which the student sees himself/herself as affiliative or submissive. The FSDQ is individually

administered and reliability and validity are discussed in the FSDQ Manual (Frost, 1973).

To the question of reliability, Frost (1973) has argued that one does not expect the same stability (in personality questionnaires) of emotional measures that one expects with cognitive tests. "If one finds a change of score over time in a subject is such a change a function of the items or a function of the person, i.e., a 'real' change in personality makeup?" (p.12). Nevertheless, one should expect relative consistency of scales' scores over short periods of time and the majority of the test-retest biserial coefficients reported between items were above .50 and thus command respect. The validity of the FSDQ is a construct validity and is given by factor structure replication.

The FSDQ continues to be used regularly in clinical practice by school psychologists. It has been translated into Japanese, Spanish, French, and Afrikaans. It is valuable as a source of data particularly with respect to both the level and source of anxiety in the individual child. Norms are available for students eight to fourteen years of age in the Calgary school population. The norms used in the present study were those for the fourteen-year-olds since the modal age was fourteen.

(3) Coopersmith Self-Esteem Inventory (School Form). This inventory may be administered to groups or individuals. The School Form is used with children and adolescents aged eight years through sixteen years-eleven months. The scale is divided into five subscales: general self, social self, home parents, self peers, and school academic. Questions are of a true and false type and to arrive at the total "self-score" the number of self-esteem items answered correctly are summed together.

Coopersmith (1967) reported that the test-retest reliability of the scale, after a five-week interval was .88 (p.10). After a three-year interval, the test-retest reliability was a respectable .70.

Based on the findings of Coopersmith (1967) it was hypothesized that the subjects in the DSH group would have a lower self-esteem than the subjects in the no-previous DSH group, however both groups would have lower self-esteem than their cohorts not in treatment facilities.

(4) The Beck Hopelessness Scale. This is a 20-item true-false questionnaire designed to assess the individual's present level of resources and future motivation. It is very easy to administer and provides useful information on how the current and future

outcomes are perceived by the subject (Wetzel et al., 1980). As with the former measures this scale has received very little work with adolescents since it was standarized on adults and so it is of interest in the present study.

Wetzel et al. (1980) have shown the Beck Hopelessness Scale to have a test-retest reliability coefficient of .77 with a sample of 73 adult inpatients. Beck (1974) and his associates showed that suicide intent in attempters correlated more highly with hopelessness than with depression. Beck defined hopelessness as negative expectancies about the future. The construct validity coefficient was reported as .53. Therefore it was predicted that the subjects in the DSH group would have a higher level of hopelessness than the subjects in the no-previous DSH group.

(5) Porteus Maze Test. There has been some interesting research conducted by Neuringer (1966) to show that people who entertain thoughts of suicide may actually demonstrate decreased cognitive abilities as compared with people who do not seriously and repeatedly think of dying. It was thought interesting to investigate this further using adolescents and attempt to replicate some of Neuringer's findings with the younger population. The Porteus Maze Test was the first

of two cognitive nonverbal tasks to be used in the present study. This pencil and paper test is a series of mazes in which the subject has to find his/her way out. Testing continues until all the designs of a series have been successfully worked through within the allowable number of trials. This test focuses on planning and judgment and may be more applicable with an emotionally disturbed population, since it does not depend upon verbal ability.

Reis (1984) reported that the typical adolescent who is in a residential treatment centre often shows less verbal ability than adolescents of his own age. Porteus (1965) reported a test-retest reliability coefficient of .75 and a validity coefficient of .69 when the Maze Test was compared to the Binet. If Neuringer (1966) is correct in saying that cognitive abilities are lessened in suicidal states, it was predicted that the subjects in the DSH group would not perform as well as the subjects in the no-previous DSH group.

(6) The Stroop Color and Word Test. The research on this test has established that it taps basic psychological processes useful in the study of human neurophysiological and cognitive processes (Golden, 1978). Adequate performance by the Stroop has been

associated with cognitive flexibility, resistance to interference from outside stimuli, creativity, psychopathology, and cognitive complexity; which clearly plays a role in many interrelated cognitive processes which determine an individual's behavior to successfully cope with cognitive stress and to process complex input. The Stroop has been used either as a screening test or as an effective part of a more general test battery. It only takes five to ten minutes to give and has good validity and reliability. More importantly, it taps qualitative aspects of such traits as impulsivity, and the ability to pay attention to detail.

Jensen (1965) reported test-retest reliabilities of .88, .79, and .71 for the three raw scores. Golden (1975a) reported validity coefficients of .89, .84, and .73 (N=450) for the group version of the test.

Golden (1975b) assigned subjects to three groups depending on their MMPI profiles: (a) a group with high points on scales 2(D) and 8(Sc); (b) a group with high points on scales 1(Hs), 3(Hy), 7(Pt) and 9(Ma); and (c) a group with high points on any other scale. All subjects were college students without a history of psychiatric problems. The results indicated significant differences among the three groups on the interference measure (3rd presentation-names of colors printed in

different colors). Subjects with a high point on Sc or D scored worst while the subjects with high points suggesting no psychopathology (group 3) showed the most resistance to interference on the Stroop task.

The author suggested that subjects prone to interference are also more prone to stereotyped behaviors characteristic of psychopathological profiles. In stress-free environments, this results in only mildly stereotyped behavior, but under stress the problems can increase. Thus the subjects who performed best are also thought to have more resistance to stress. Therefore it was predicted the adolescents in the DSH group would show more difficulties in resistance to interference than the subjects in the no-previous DSH group.

(7) The Arrow Dot Test of Impulsivity. This test is a perceptual motor task requiring the solution of twenty-three relatively simple graphic problems. The subject is directed to draw the shortest possible line from the point of an arrow to a dot, between which are interspersed a variety of solid lines and black bars defined as barriers by the instructions. A general rationale for the use and scoring of this test rests upon graphic and symbolic representation. The arrow is considered a representative of impulse forces, not only because of the symbolic use in our culture, but also on

the basis of the instruction, which requires an active extension of the arrow to the dot.

Dombrose and Slobin (1958) reported that the test-retest reliabilities of this test for the three derived scores of I (impulse), E (ego), and S (superego) were .80, .83, and .59, respectively. These procedures were applied to normals as well as patients receiving outpatient treatment in the United States. The validity of this test has been estimated from the aspect of construct validity. Dombrose and Slobin made predictions about the variations in scores to be expected among three groups of male subjects. They found that 23 of 36 rank order predictions were correct at the .01 level of significance, an additional three at the .05 level and an additional two at the .10 level.

The specific hypothesis to be tested using the Arrow Dot Test would be to predict that the subjects in the DSH group would be more impulsive and give some evidence of a weaker ego as compared to the subjects in the no-previous DSH group.

7.5 Phase 2

Phase 2 involved scrutinizing the case files of each of the forty subjects. The information contained in the files was tabulated on the basis of the important

identified factors discussed in the previous Review of the Literature section. These are operationally defined in Appendix A. The identified factors were: birth history of the subject, residential history of the subject, marital history of the natural parents, marriage history of present parents, education history of natural parents, education history of present parents, occupational history of natural parents, occupational history of present parents, psychiatric history of natural parents, psychiatric history of present parents, school history of subjects, criminal history of subjects, early negative emotional trauma history of subjects, suicide history of natural parents, suicide history of present parents, and psychiatric history of subjects.

The operational definition used and coding scheme was adapted from the work of Pettifor, Perry, Plowman and Pitcher (1983).

7.5.1 Reliability Check

In order to ensure reliability of these data, individual case summaries for all forty subjects were written up and given independently to two senior undergraduate students who were not informed as to the nature of the study. They were asked to read the case summaries and decide whether the file belonged to either

the DSH group or the non-DSH group on the basis of the specified criteria. Agreement between the independent raters and the principal investigator was 95%. The raters were also used in verifying some of the coding of these data. Specifically they independently spotchecked the information from the case summaries using the identified operational definitions and the level of agreement between the two raters and the principal investigator ranged from 90% to 96%.

7.5.2 Problem of Missing Data

It was decided that only the variables that had 75% or more complete information from the case files be used. In other words, for a variable to be examined there had to have been information on that variable in 15 of the 20 case files (each group) or 75% of the data pool. Where this condition was not met, the specific variable was excluded from the analysis.

CHAPTER 8

RESULTS

The data were treated using the Statistical Package for the Social Sciences (SPSS) programs for descriptive statistics (means, standard deviations, and range), frequency distributions, contingency tables and related measures of association, mean difference testing and discriminant analysis (Nie et al., 1977; 1981).

Definitions for these terms are provided in Appendix B. All calculations were performed to two decimal places. X^2 is taken to be the derived chi-square statistic, while $\overline{X}$ is taken to be the derived mean.

Since there were few female subjects relative to the number of males, it was decided to collapse across sex and to analyze these data between the subjects in the DSH group and the subjects in the no-previous DSH group. The exact probability level was given in each of the analyses because of the relative small sample size, and this would be statistically more meaningful. In most cases this level exceeded the significance level of .05.

Table 2 shows the comparison of the demographic variables between the subjects in the DSH group and the subjects in the no-previous DSH group. The two groups differed significantly on two of the demographic variables. More of the subjects in the DSH group grew up

in a rural setting as compared to the subjects in the no-previous DSH group ($t = 2.14$, $p < .04$). Second, the subjects in the DSH group were separated from their natural parents at an earlier age as compared to the subjects in the no-previous DSH group ($t = 4.47$, $p < .001$).

8.1 Results of Phase 1 (Psychometric Testing) Non-parametric Analyses

Table 3 shows the psychometric data between the subjects in the DSH group and the subjects in the no-previous DSH group. One subtest from the Frost Self-Description Questionnaire, namely, Separation Anxiety, (t value = 1.80, df = 38, $p < .08$) showed that the subjects in the no-previous DSH group reported a higher level of separation anxiety ($\overline{X}=2.70$) as compared to the subjects in the DSH group ($\overline{X}=1.85$). Two subtest scores from the Arrow Dot Test of Impulsivity also showed differences between the two groups. These were the ego subtest score; the subjects in the DSH group reported a higher score ($\overline{X}=16.20$) as compared to the subjects in the no-previous DSH group ($\overline{X}=13.65$); and the superego subtest score; the subjects in the no-previous DSH group reported a higher score as compared to the subjects in the DSH group, $\overline{X}=5.45$ and $\overline{X}=3.15$, respectively. The probability of this occurring by chance is less than $p < .09$.

8.2 Results of Phase 2 (Life History Information) Non-parametric Analyses

Table 4A shows the significant life history information between the subjects in the DSH group and the subjects in the no-previous DSH group. The subjects in the DSH group were separated from their natural parents at an earlier age (X^2=22.67), have fewer siblings (X^2=9.80) and more legal problems with drugs (X^2=3.61) and fire-setting (X^2=10.80), as compared to the subjects in the no-previous DSH group. The subjects in the DSH group showed more discipline problems (X^2=3.33) and motivation problems (X^2=4.5) but fewer incidences of verbal aggression (X^2=4.95), physical aggression (X^2=2.98) and sexual inappropriateness (X^2=3.68) in school, as compared to the subjects in the no-previous DSH group. The subjects in the DSH group were more likely to be born out of wedlock (X^2=6.55), were born and grew up in rural Alberta (X^2=2.98) and moved residence frequently (X^2=25.33). Further, they were likely to be neglected by their natural parents (X^2=12.22) and to have had poor relationships with both their mother (X^2=3.60) and father (X^2=3.33). They were abused physically (X^2=3.61) and sexually (X^2=3.91) more as compared to the subjects in the no-previous DSH group. The subjects in the DSH group showed a history of depression (X^2=15.36),

and a lack of expressed attachment to an emotionally significant person in their life (X^2=26.19). These subjects also reported enjoyment in high risk activities (X^2=14.43) and were often put back in school (X^2=22.89). As mentioned, the subjects in the no-previous DSH group were described as having more verbal and physical aggression problems in school and displayed more sexual inappropriateness to peers.

Table 4B shows the life history information between the male subjects in the DSH group and the male subjects in the no-previous DSH group. Since there were only nine females which took part in the present research, it was decided not to analyze their data separately due to the small sample size. As Table 4B shows, most of the significant variables in Table 4A were a result of the males' life history records. The exceptions to this finding (or the variables not found to be significant for the males, but found to be significant when all forty subjects were analyzed) were: the number of grades failed, and enjoying high risk activities. It would seem that the inclusion of the data for the nine female subjects could be responsible for these two variables showing significance in Table 4A.

It was decided to investigate further the optimal discriminating factors between the two groups, keeping in

mind the relatively small sample size of forty. In order to carry out the discriminant analysis, the selection of the entry variables were determined by examining the size of effect of the chi-square and the measures of association.

Nie et al., (1977) comment on the use of discriminant analysis with a small sample size. They suggest to use one variable for every ten cases. Therefore, on the basis of the chi-square and the measures of association, the four significant variables showing the largest values were selected for entry into the discriminant function. These variables were: number of resident moves to 1985 (X^2=25.33); lack of emotional significant other (X^2=26.19); number of grades failed (X^2=22.89); and age of separation from natural parents (X^2=22.67).

Table 5 presents the stepwise discriminant analysis and it shows that the best predictor in discriminating between the groups is the lack of emotional significant other. This is followed by the number of resident mobility to 1985, and lastly the number of grades failed. The age of separation from natural parents did not contribute to the final discriminant equation.

Tables 6 and 7 presents the significant information obtained by examining the Threat of Self-Harm reports for

the twenty subjects in the DSH group. Table 6 shows that over 80% of the incidences of deliberate self-harm can be accounted for by the subjects slashing their wrists and ingesting drugs. Of the 31 self-harm reports examined for this group, two (5.7%) involved jumping and two involved hanging (5.7%).

Table 7 presents the frequency of the distribution for the threat of Self-Harm reports. Nine of the subjects made three or fewer acts of DSH, while eleven of the subjects made four or more acts of DSH. Two of the twenty subjects made more than six acts of DSH.

In order to examine these data more thoroughly, the DSH reports were analyzed by looking at the subjects that had three or less acts of DSH as compared to the subjects that had four or more acts of DSH.

Table 8 presents these data across the significant life history information. The subjects who made four or more acts of DSH more often had a father who was reported to have sexual problems, and more often had a mother who required psychiatric treatment. These subjects were more likely to be only children and to show verbal aggression towards their peers. They also were described as being physically abused while in care.

Table 9 shows the significant deliberate self-harm history of the parents for the subjects in the DSH group

as compared to the subjects in the no-previous DSH group. The subjects in the DSH group had (more often) parents who have also made acts of DSH, relatives who have threatened acts of DSH and relatives who have committed suicide.

Tables 10 and 11 present the significant life history information of the parents for the subjects in the DSH group as compared to the subjects in the no-previous DSH group. The subjects in the DSH group had parents who experienced communication difficulties in their marriages, problems with alcohol and drugs, legal and psychiatric problems and deficits in parenting skills.

8.3 Correlational Analyses Between the Psychometric Data and Life History Data

Table 12 shows the results for the subjects in the no-previous DSH group. Low to moderate significant relationships were found on several of the variables. These included a negative relationship between the subtest concentration anxiety on the Frost Self-Description Questionnaire (FSDQ) with the age the subject separated from the present parents. This would suggest that the higher the level of anxiety, the younger the age the child separated from the present parents. Another significant finding was the positive relationship between the internal aggression subtest on the FSDQ and

the number of resident moves, suggesting the more frequent the moves occurred, the higher the level of internalized aggression. The relationship between the Arrow Dot Test of Impulsivity and the age of separation from the natural parents produced a relationship which may indicate that the higher the score, the older the subjects were prior to the separation. A negative relationship was found between the Test Quotient score on the Porteus Mazes Test and age of separation from natural parents. This finding may indicate that the higher the score the younger the age of separation. A positive relationship was found between the total amount of time taken to complete (in seconds) the Porteus Mazes Test and the age of separation from the subjects' present parents. Consequently, the longer the time required to complete this test, the older in age the separation took place.

Somewhat surprising and perhaps puzzling was the relationship found between the Colors Only Subtest from the Stroop Word Color Test and the age of separation from the natural and the present parents. Both a positive and negative relationship was obtained which may indicate that the limited size of the present sample may have produced this relationship. The final relationship observed was the Self-Esteem (Home) Subtest from the Coopersmith Self-Esteem Scale and the age of separation

from the present parents. The lower the self-esteem score, the younger the age of separation.

Table 13 shows the intercorrelation for the subjects in the DSH group. Interestingly, none of the relationships observed with the subjects in the no-previous DSH group were observed in the subjects in the DSH group. The subjects in the DSH group showed a higher positive level of test and social anxiety as measured by the FSDQ and the age of separation from the present parents. This was also the case for the scores on the separation and free-floating anxiety. A negative relationship was found between the level of concentration anxiety and the number of resident moves, suggesting that the higher the level of concentration anxiety, the lower number of moves.

There was a positive relationship found between the level of impulsivity, as measured by the Arrow Dot Test of Impulsivity and the age of separation from the present parents. This finding reflects that, the higher the level of impulsivity, the older the subject was at the time of separation. However a negative correlation was found between the ego score subtest from the Arrow Dot Test of Impulsivity and the age of separation from the present parents. Once again, the relative small size of the sample may have influenced the direction of these

relationships.

A positive relationship was found between the subject's scores on the Porteus Mazes Test and the number of resident moves, suggesting the higher the score, the greater number of moves.

A positive relationship was found in the total score for the short form of the MMPI measuring suicidal ideations and the age of separation from the present parents, suggesting the higher the level of clinical pathology, the older in age that the separation took place. This trend was also the case with the level of hopelessness as measured by the Beck Hopelessness Scale and the age of separation from the natural parents.

Finally, a negative relationship was found between the level of self-esteem as measured by the Coopersmith Self-Esteem Scale and the age of separation from the present parents, indicating the less the level of self-esteem, the older the age when the separation took place.

8.4 Summary of Results

The results of the present study suggest the following:

1) The non-parametric analyses for the psychometric data were limited in showing significant differences between the subjects in the DSH group and the subjects in the no-

previous DSH group.

2) The life history information did show significant discriminating power between the two groups with the probability exceeding chance.

3) Of the four variables that were used to discriminate between the two groups the most effective discriminator was the variable that showed the subjects in the DSH group did not perceive that anyone cared about them. They felt no one in their lives was significant enough to communicate with in an effective manner.

The other two variables that were found to have significant discriminating power were: the number of times a residential move had occurred in the subject's life and the number of grades failed.

4) The parents of the subjects in the DSH group were found to have significantly more difficulties in their marriages, jobs and displaying parenting skills.

5) The subjects who had made four or more acts of DSH were found to have significant additional problems with parents while under care and to show aggression towards their peers more frequently as compared to the subjects who had made three or less acts of DSH.

6) The correlational analyses between the subjects in the DSH group and the subjects in the no-previous DSH group showed that several of the psychometric measures were

related to the life history information that involved a significant loss in the subjects' life. Significantly more of the psychometric measures related to the life history variables for the subjects in the DSH group, indicating, clearly, that there were more early life losses in these subjects, as indicated by the number of resident moves and the age of separation from both the natural and the present parents.

Table 2 - Comparison of the Subjects That Took Part in the Study (Expressed in Percentages)

(Operational definitions in Appendix A)
Degrees of freedom = 38

Variable	DSH Group (N=20)	S.D.	No-Previous DSH Group (N=20)	S.D.	P level	t-value
Age	14.9 (mean age)	1.12	14.7 (mean age)	1.38	.62	.50
Males	17 (85%)	.37	14 (70%)	.47	.27	1.13
Females	3 (15%)	.37	6 (30%)	.47	.26	1.13
Residents of Hull Home	5 (25%)	.44	8 (40%)	.50	.32	1.00
Residents of Woods Adolescent Centre	15 (75%)	.44	12 (60%)	.50	.32	1.00
Born in Alberta	11 (55%)	.51	12 (60%)	.50	.76	.31
Born in British Columbia	3 (15%)	.37	3 (15%)	.37	1.0	0.0
Born in Eastern Canada	4 (20%)	.41	2 (10%)	.31	.39	.87
Born in Northern Territory	1 (5%)	.22	0 (0%)	.00	.33	1.00
Born outside North America	1 (5%)	.22	2 (10%)	.31	.56	.54

Table 2 (continued)

Variable	DSH Group (N=20)	S.D.	No-Previous DSH Group (N=20)	S.D.	P level	t-value
Grew up in rural setting	9 (45%)	.51	3 (15%)	.37	.04*	2.14
Grew up in town setting	3 (15%)	.37	6 (30%)	.47	.27	1.13
Grew up in city setting	8 (40%)	.50	11 (55%)	.51	.35	.94
Caucasian	16 (80%)	.41	16 (80%)	.41	1.0	0.0
Native	3 (15%)	.37	2 (10%)	.31	.64	.47
Oriental	1 (5%)	.22	1 (5%)	.00	.16	1.45
Years in Calgary	11.65(mean years)	4.20	12.70(mean years)	2.39	.34	.97
Subject Adopted	3 (15%)	.37	2 (10%)	.51	.64	.47
Ages of separation from natural parents	4.4 (mean years)	2.79	8.8 (mean years)	3.96	.001*	4.47
Age of separation from present parents	8.8 (mean years)	4.72	8.0 (mean years)	5.59	.61	.52
Major illness before 1st birthday	9 (45%)	.51	6 (30%)	.47	.34	.97
Subject-only child	4 (20%)	.41	8 (40%)	.50	.18	1.38
Subject-youngest child	6 (30%)	.47	3 (15%)	.37	.27	1.13

Table 2 (continued)

Variable	DSH Group (N=20)	S.D.	No-Previous DSH Group (N=20)	S.D.	P level	t-value
Subject-middle child	3 (15%)	.37	2 (10%)	.31	.64	.47
Subject-oldest child	7 (35%)	.49	7 (35%)	.49	1.00	0.0
Mean number of months in residence	15 months	.89	17 months	.81	.67	1.11
WISC-R Full Scale	95.30	11.04	94.60	6.33	.81	.25
WISC-R Performance Scale	94.15	7.31	96.60	12.47	.50	.68
WISC-R Verbal Scale	93.95	11.02	93.65	7.14	.90	.10

Table 3 - Phase 1 - Comparison of the Psychometric Data
Between the DSH Subjects and No-Previous DSH Subjects

(Degrees of freedom = 38 N = 40)

Variable	Mean		Standard Deviation			
	DSH Group	No Previous DSH Group	DSH Group	No Previous DSH Group	P level	t-value
Frost Self Description Questionnaire	(N=20)	(N=20)				
Test anxiety	1.35	1.40	2.00	1.67	.93	.09
Social anxiety	1.95	1.95	1.50	1.15	1.00	.00
Worry tension	1.90	2.20	.91	1.10	.35	.94
Concentration anxiety	2.20	2.30	1.06	1.22	.78	.28
Separation anxiety	1.85	2.70	1.31	1.66	.08	1.80
Spatial separation	1.45	1.90	1.10	1.48	.28	1.09
Body damage anxiety	1.95	2.20	1.19	1.51	.56	.58
Free floating anxiety	2.15	1.40	1.72	1.60	.16	1.42
External aggression	4.35	3.75	2.18	2.02	.37	.90
Internal aggression	4.05	4.25	2.10	1.68	.74	.33
Projective aggression	1.35	1.45	1.14	.89	.76	.31

Table 3 (continued)

Variable	Mean		Standard Deviation		P level	t-value
	DSH Group	No Previous DSH Group	DSH Group	No Previous DSH Group		
Denial	2.90	2.65	2.15	1.98	.70	.38
Affiliation	1.15	.95	1.14	1.19	.59	.54
Submissiveness	1.15	1.10	1.60	.97	.90	.12
Arrow Dot Test of Impulsivity						
Impulse score	3.65	3.90	1.87	2.55	.72	.35
Ego score	16.20	13.65	4.05	5.28	.09	1.71
Superego score	3.15	5.45	3.62	4.57	.09	1.76
Total seconds	135.05	123.55	32.72	52.14	.41	.84
Porteus Maze Test						
Test quotient	81.60	86.85	11.68	12.76	.18	1.36
Qualitative score	58.80	55.30	21.28	21.38	.61	.52
Total seconds	201.45	184.85	63.10	65.43	.42	.82
Stroop Color Word Test						
Words only score	79.15	80.95	10.99	12.09	.62	.49

Table 3 (continued)

Variable	Mean		Standard Deviation		P level	t-value
	DSH Group	No Previous DSH Group	DSH Group	No Previous DSH Group		
Colors only score	60.55	57.50	11.90	11.29	.41	.83
Word color score	29.85	29.65	9.17	8.68	.94	.07
MMPI Short Form	23.00	22.00	11.32	6.80	.74	.34
Beck's Hopelessness Scale	9.55	7.65	5.20	3.99	.20	1.30
Coopersmith Self Esteem Scale						
General score	14.50	15.40	4.94	4.71	.56	.59
Social score	4.75	5.45	2.38	2.30	.35	.94
School score	3.55	4.20	1.79	2.35	.33	.98
Home score	3.55	3.35	2.11	2.00	.76	.31
Lie score	2.25	2.05	2.15	1.60	.74	.33

Table 4A - Significant Life History Variables Between Subjects in the DSH Group and the Subjects in the No-Previous DSH Group

Variable	X^2	Direction	df	P Level	eta	Lambda
Age-separation from natural parents	22.67	DSH Group: Younger Age	13	.03	.63	.60
Number of natural siblings	9.80	DSH Group: Fewer Siblings	5	.08	.49	.50
Drug problem	3.61	DSH Group: More Often	1	.05	.35	.35
Fire-setting problem	10.80	DSH Group: More Often	1	.001	.58	.50
Discipline problem in school	3.33	DSH Group: More Often	1	.06	.35	.30
Motivation problem in school	4.51	DSH Group: More Often	1	.03	.39	.35
Verbal aggression problem in school	4.95	DSH Group: Less Often	1	.02	.40	.40
Physical aggression problem in school	2.98	DSH Group: Less Often	1	.08	.30	.30
Sexual inappropriate-ness to peers	3.68	DSH Group: Less Often	1	.05	.35	.35
Born in rural Alberta	2.98	DSH Group: More Often	1	.07	.33	.21

Table 4A (continued)

Variable	X^2	Direction	df	P Level	eta	Lambda
Number of resident moves to 1985	25.33	DSH Group: More Often	15	.04	.75	.79
Born out of wedlock	6.55	DSH Group: More Often	1	.01	.45	.45
Neglected by natural parents	12.22	DSH Group: More Often	1	.001	.60	.60
Poor father-child relationship	3.33	DSH Group: More Often	1	.06	.35	.30
Poor mother-child relationship	3.60	DSH Group: More Often	1	.05	.35	.35
Sexually abused by non-relative	3.91	DSH Group: More Often	1	.04	.38	.30
Physically abused by natural father	3.61	DSH Group: More Often	1	.05	.35	.35
Physically abused in care	10.68	DSH Group: More Often	1	.001	.57	.49
History of documented depression	15.36	DSH Group: More Often	1	.001	.67	.65
Lack of emotional significant other	26.19	DSH Group: More Often	1	.001	.80	.79

Table 4A (continued)

Variable	X^2	Direction	df	P Level	eta	Lambda
Enjoys high risk activities	14.43	DSH Group: More Often	1	.001	.65	.65
Number of grades failed	22.89	DSH Group: More Often	1	.001	.68	.63

Operational definition in Appendix A.

Table 4B - Comparison of Males in the DSH Group and Males in the No-Previous DSH Group for Significant Life History Information

Variable	X^2	Direction	df	P Level	eta
Born out of wedlock	6.07	DSH Males: More Often	1	.01	.51
Poor communication - natural father	3.75	DSH Males: More Often	1	.05	.42
Drug problems - natural father	4.15	DSH Males: More Often	1	.04	.44
Lacking parental skill - natural father	3.87	DSH Males: More Often	1	.04	.42
Psychiatric admission - natural father	4.19	DSH Males: More Often	1	.04	.43
Suicide by relative of natural mother	4.68	DSH Males: More Often	1	.03	.45
Suicide by relative of natural father	9.61	DSH Males: More Often	1	.01	.58
Present parents still married	6.49	DSH Males: Less Often	1	.01	.54
Firesetting problems	9.61	DSH Males: More Often	1	.01	.58
Motivational problems	5.31	DSH Males: More Often	1	.02	.48

Table 4B (continued)

Variable	X^2	Direction	df	P Level	eta
Verbal aggression problems	3.70	DSH Males: More Often	1	.05	.41
Sexual inappropriateness	5.42	DSH Males: Less Often	1	.01	.48
Sexually abused by non-relative	4.07	DSH Males: More Often	1	.04	.44
Physically abused by father	3.85	DSH Males: More Often	1	.04	.42
Physically abused in care	7.68	DSH Males: More Often	1	.001	.56

Table 5 - Stepwise Discriminant Function for the Life History Information

Significant Variables in the Equation	Wilk's Lambda	P-level	Rao's V	Change in V
Lack of emotional significant others	.26	.001	107.7	107.7
Number of resident moves to 1985	.22	.001	131.5	23.86
Number of grades failed	.19	.001	159.5	28.01

Canonical Discriminant Function

Function	Eigenvalue	Percent of Variance	Canonical Correlation	After Function	Wilk's Lambda	Chi-Squared	df	P level
1	4.20	100.00	.90	0	.19	60-16	3	.001

Table 6 - The Types and Incidence of the Deliberate Self-Harm in the DSH Group (N=20)

Type	Frequency	Percentages
Wristslashing	15	48%
Drug Overdose	12	34%
Jumping	2	5.7%
Firearms	0	0%
Hanging	2	5.7%
Total	31	Deliberate Self-Harm Reports

Table 7 - Distribution of Deliberate Self-Harm Reports

Number of Subjects	Number of Repeated Acts of DSH
2	1
3	2
4	3
8	4
1	5
1	7
1	9
20 DSH Group	31 Total DSH Reports

Table 8 - Significant Life History Information Between Subjects Who Made Three or Less Acts of DSH (N=9) and Subjects Who Made Four or More Acts of DSH (N=11)

Variable	Fisher's Exact Test	Direction for Subjects Who Made Four or More Acts of DSH	Eta	Lambda
Natural father - reported sexual difficulties	.04	More Often	.49	.44
Present mother - reported psychiatric admission	.01	More Often	.52	.33
Only child	.05	More Often	.45	.22
Shows verbal aggression to peers	.05	More Often	.41	.33
Physically abused in care	.01	More Often	.51	.48

Table 9 - Significant Deliberate Self-Harm History for Both the Natural Parents and Present Parents

Variable	X^2	Direction	df	P Level	eta	Lambda
Natural mother DSH attempt	3.84	DSH Group: More Often	1	.05	.36	.35
Natural mother relative has made a DSH	8.90	DSH Group: More Often	1	.002	.42	.40
Natural father has made a DSH threat	4.90	DSH Group: More Often	1	.01	.42	.32
Natural father relative has committed suicide	7.91	DSH Group: More Often	1	.05	.36	.35
Present mother threatened a DSH	3.81	DSH Group: More Often	1	.05	.36	.35

Operational definitions in Appendix A.

Table 10 - Significant Life History Information of Natural Parents Compared Between the Subjects in the DSH Group and the Subjects in the No-Previous DSH Group

Variable	X^2	Direction	df	P Level	eta	Lambda
Poor communication in parents' marriage	2.98	DSH Group: More Often	1	.08	.33	.30
Natural father - drugs/alcohol problems	4.51	DSH Group: More Often	1	.03	.39	.35
Natural father - criminal record	4.95	DSH Group: More Often	1	.02	.38	.25
Natural father - psychiatric admission	3.68	DSH Group: More Often	1	.05	.35	.35
Natural father - lacks parental skills	4.90	DSH Group: More Often	1	.02	.40	.40
Natural mother - drugs/alcohol problems	3.66	DSH Group: More Often	1	.05	.38	.25

Operational definitions in Appendix A.

Table 11 - Significant Life History Information of Present Parents Compared Between the DSH Group and the No-Previous DSH Group

Variable	X^2	Direction	df	P Level	eta	Lambda
Present parents still married	3.91	DSH Group: Less Often	1	.04	.38	.30
Present mother - alcohol problems	3.66	DSH Group: More Often	1	.01	.47	.39
Present mother lacks parental skills	6.96	DSH Group: More Often	1	.01	.47	.39

Operational definitions in Appendix A.

Table 12 - Intercorrelations Between the Psychometric Data and the Life History Data Related to Loss for Only the Subjects in the No-Previous DSH Group (N=20) (Significance Level in Brackets)

	Life History Variables		
Psychometric Variables	Number of Resident Moves	Age of Separation from Natural Parents	Age of Separation from Present Parents
Concentration Anxiety (FSDQ)			-.52 (.009)
Internal Aggression (FSDQ)	.36 (.05)		
Ego Score (Arrow Dot)		.37 (.05)	
Test Quotient Score (Porteus Mazes)		-.48 (.01)	
Total Time Taken (Porteus Mazes)			.37 (.05)
Colors Only Score (Stroop Test)		.46 (.02)	-.54 (.007)
Self-Esteem Home Score			.47 (.01)

Table 13 - Intercorrelations Between the Psychometric Data and the Life History Data Related to Loss for Only the Subjects in the DSH Group (N=20) (Significance Level in Brackets)

	Life History Variables		
Psychometric Variables	Number of Resident Moves	Age of Separation from Natural Parents	Age of Separation from Present Parents
Test Anxiety (FSDQ)			.40 (.04)
Social Anxiety (FSDQ)			.41 (.03)
Concentration Anxiety (FSDQ)	-.41 (.03)		
Separation Anxiety (FSDQ)			.45 (.02)
Free-Floating Anxiety (FSDQ)		.38 (.04)	
Impulse Score (Arrow Dot)			.48 (.01)
Ego Score (Arrow Dot)			.37 (.05)
Total Time Taken (Arrow Dot)			.59 (.003)
Test Quotient Score (Porteus Mazes)	.55 (.006)		
Qualitative Score (Porteus Mazes)	.40 (.04)		
Words Only Score (Stroop Test)			.37 (.05)
MMPI Short Form Score			.45 (.02)
Hopelessness Scale Score		.44 (.02)	
Self-Esteem School Score			-.65 (.001)

CHAPTER 9

DISCUSSION

The results of the present study suggest that within a group of emotionally disturbed adolescents residing in treatment facilities, differences exist between those adolescents who have made acts of DSH and those adolescents who have not made acts of DSH. These differences were evident when the case files of each of the forty subjects were analyzed. The non-parametric results obtained by the administration of the seven psychometric tests were not as promising, but the correlational analyses revealed some important relationships. This chapter will attempt to explain these findings in relation to the central thesis of the present research, i.e., the early life experiences of loss and lack of proper attachment may contribute to self-destructive behavior in adolescents.

The most important variable in statistical terms, discriminating between the two groups showed that most of the subjects in the DSH group reported that they did not think they could talk to anyone because they felt no one cared for them. When the subjects were asked the question: 'Do you have anyone you would consider close enough to talk openly and freely?' 80% of the subjects

in the DSH group replied no, as compared to 40% of the subjects in the no-previous DSH group. For the subjects in the DSH group that responded yes to the question, 35% mentioned their mother, father or close relative as the emotionally significant other. This is compared to 65% of the subjects in the no-previous DSH group. It is interesting, that when the subjects were asked to describe the relationship they had with the emotionally significant other, the subjects in the DSH group more often used ambivalent words and phrases such as "He's okay, but I wish he could be more friendly to me" as compared to statements made by the subjects in the no-previous DSH group, such as "when I'm down its nice to have a friend because I can tell her my deepest feelings and then I feel better." This may suggest that not only are the subjects in the DSH group reporting to having fewer meaningful relationships but also the quality of the existing relationships are different as compared to the subjects in the no-previous DSH group.

In order to elucidate this further, additional evidence from the life history of the subjects in the DSH group, derived from the present study, is described. The subjects in the DSH group were more likely to have been born out of wedlock, raised in a rural setting and in families with fewer siblings. They were more likely

to have been neglected by their natural parents early in their life. This included a lack of proper nurturing, a lack of affection and a lack of commitment from one or both of the subjects' parents. There was also a tendency for the subjects to have had experienced a physical illness prior to their first year. This included complications arising from birth, detected physical abnormalities and other physical defects.

The subjects' relationship with their natural parents were more likely to have been described as poor; featuring a chronic pattern of disruptive, unstable, and a negative type of interaction. They were also exposed to frequent physical abuse by their natural father. This included harsh kicking and beating, whipping, biting, and using objects such as baseball bats, shovels and ropes to inflict the punishment. Somewhat unexpectedly, the physical abuse continued for some of the subjects (30%) even while they were in care or receiving treatment. Usually this was at the hands of the foster parents or relatives of the foster parents or in one case, a child care worker.

Sexual abuse was found to be more frequent among the subjects in the DSH group. This was sometimes associated with the physical abuse, such as in one case, a father while beating his daughter, managed to rip her

clothes off and proceeded to sexually assault her.

The subjects in the DSH group were separated from their natural parents at a younger age ($\overline{X}$ = 4.4 years old), as compared to the subjects in the no-previous DSH group ($\overline{X}$ = 8.8 years old). This was often due to the parents' failed marriage and the subject having to be placed in care with relatives, friends or government agencies.

The marriages of these parents were described as lacking in proper communication which often led to verbal and/or physical conflicts, sexual problems (infidelity, lack of sex in the relationship or unconventional forms of sexual behavior), and a deficit in parental skills (such as lack of positive modelling, time spent with children, activities involved with their children and ability to offer appropriate problem-solving skills to their children). In addition, the parents of the subjects in the DSH group reported to have more problems with alcohol and drug abuse, had a criminal record and were more likely to have sought help for emotional difficulties.

The subjects in the DSH group experienced a higher frequency of residential moves in their childhood as compared to the subjects in the no-previous DSH group. This finding, along with the unstable family

environment, suggests that there is a higher degree of instability in these subjects throughout their life and may affect the frequency and quality of newly formed relationships.

Intellectually there were no differences observed between the two groups, as indicated by the WISC-R scores (Table 2). These scores were part of the file information for each of the subjects.

However the subjects in the DSH group repeated a school year more often than the subjects in the no-previous DSH group (Table 4). Some of the subjects in the DSH group were described by their teachers as "troublemakers, disruptive in class, a nuisance, never has his work done and doesn't care about his work." They were more likely to have discipline and motivational problems than the subjects in the no-previous DSH group, and were absent from class more frequently.

Emotionally, the subjects in the DSH group were described as more often showing signs of a depressive symptomology, such as a loss of sleep, a loss of appetite, or loss of energy and displaying an overall sadness over an extended period of time as compared to the subjects in the no-previous DSH group. Interestingly, the self-esteem measure and the

hopelessness score administered to each subject failed to uncover any of these features when the non-parametric analyses were conducted.

The subjects in the DSH group reported more often to engaging in high-risk activities such as high-speed skiing, and some of the older subjects in the group enjoyed high-speed driving, playing with knives and hunting.

The subjects in the DSH group more often had parental figures who had made acts of DSH, or relatives that had attempted or completed suicide.

Further, the subjects who had made four or more acts of DSH, were more likely an only child, who displayed verbal aggression towards peers and had parents who had been in unstable marriages.

Having summarized the findings from the present study, attention should be given to examining findings and interpretations from other studies that have looked at similar variables studied in the present research.

The findings from the life history information are consistent with the works of Adam (1985), Maris (1985), Harlow et al. (1986), and Pettifor et al. (1983). These researchers have all shown that suicidal behavior is associated with family disorganization, marital conflict, parental alcoholism and drug abuse.

Furthermore, there are more family disruptions caused by parental deaths, separations, and divorce. More subtle variables such as covert hostility, isolation, neglect, and rejection by parents have also been found (Garfinkel et al., 1982; Tishler & McKenry, 1981).

Specifically, the present study replicates many of the findings from the often-cited Golombek and Garfinkel, (1983) study. They recorded hospital emergency admissions in Toronto over seven years, and gathered data on 505 children and adolescents who had engaged in serious acts of self-harm. These adolescents had distinguishing features from a matched control group, including; religion, living situation, substance abuse, current psychiatric illness, prior psychotherapy and current medical illness. The authors also demonstrated that the families of the parasuicides had more psychiatric illness (primarily drug and alcohol abuse) suicide, paternal unemployment, and parental unemployment, and maternal absence than the control families.

Bagley and Ramsay (1985) have quite correctly stated that "these important findings have clear implications for intervention and therapy: parasuicide (acts of self-harm), in young people is not a random event, but follows a clearly defined combination of

social and psychological circumstances."

Pettifor et al. (1983) concluded that the most important distinguishing feature for individuals who went on to kill themselves as compared to individuals who did not kill themselves was that the suicide group were much more likely to have reported suicidal thoughts and ideas concerning death when seen as adolescents. The suicide group had also experienced a greater amount of personal and social disruption in their lives, including fathers with alcoholism and mothers who had committed suicide.

In the present study, for the adolescents in the DSH group, the findings were similar and consistent with the Pettifor et al. (1983) study.

Clearly, the early life experiences of the adolescents in the DSH group were more chaotic and disruptive than that associated with the adolescents in the no-previous DSH group. The correlational analyses revealed that the adolescents in the DSH group possess more anxiety, show less cognitive flexibility and tend to be more impulsive than the adolescents in the no-previous DSH group. Furthermore, these individuals have a lower level of self-esteem. The poor self-concept of these adolescents is perhaps related to the age of separation from their parents. The younger the age at

which this separation took place, the greater the likelihood that they experienced a lower level of self-esteem.

One recent study (Friedman et al., 1984) which compared highly suicidal depressed adolescents to matched nonsuicidal depressed adolescents found that chronic illness of a parent during adolescent and latency distinguished between the two groups, whereas a family history of suicidal behavior and lifetime psychiatric illness did not. Another recent study by Hawton et al. (1982) found a relationship between the severity of family disorganization and the severity of behavioral disturbance and suicidal ideation in the child. All of these experiences pose the threat to the continuity and availability of parental care and emotional support. There is evidence that such disturbances can have a profound effect on emotional life and behavior and appear relevant to self-destructive behavior.

Pfeiffer (1986) has suggested that disturbances in the child include withdrawn, shy, and socially isolated behavior; school difficulties; inattentiveness; defiance; and somatic concerns. In the present study,

the adolescents in the DSH group were described as having many similar findings to those reported by Pfeiffer in that they were more likely to have higher levels of anxiety in testing situations, demonstrate greater impulsivity, contribute to motivational discipline problems at school and experience a lower sense of self-worth than the adolescents in the no-previous DSH group.

In the present study, one of the female adolescents in the DSH group illustrates these features: Debi was born out of wedlock and at the age of four was seriously sexually abused by her natural father. Her parents divorced soon after this and Debi's mother, unable to care for Debi and her three other younger sisters, committed suicide. By the age of six, Debi had been in twelve different government placements; the majority of them being foster homes. While in Grade one, Debi was described as uncooperative, defiant and easily distracted. She displayed unusual behavior such as crawling on the floor, attempting to take her clothes off, and swallowing glue, thumbtacks and blackboard chalk. At the time that Debi agreed to participate in the present study, she was described by the staff as constantly depressed, with thoughts of wanting to die, and lacking in self-worth. At 15 years of age, she has

been involved in drugs, alcohol and prostitution. It was recently discovered that she was pregnant and she had no idea who the father might be.

The present study found that the subjects in the DSH group were separated from their natural parents at an earlier age as compared to the subjects in the no-previous DSH group. In attempting to explain this finding, consideration should be given to the fact that there was no attempt to control for socioeconomic levels. Therefore, it could have been that the subjects in the DSH group had parents that came from lower economic levels and had to leave the child for extended periods of time, due to a transient work situation.

However, it is clear that the subjects in the DSH did not receive strong parental attachment early in their lives.

As mentioned earlier, the research efforts of Bowlby (1969) demonstrated that human infants regularly show a marked behavioral response to even brief separations from principal caretaking figures in their early years. The typical pattern of these responses is an initial phase of protest, characterized by agitation, tearfulness and anger, a second phase of despair during which the child appears quiet and socially withdrawn, and a phase of detachment after prolonged separation

where the child appears to lose interest in the primary attachment figure and rejects attempts made to approach him/her. It is hypothesized by Bowlby that the protest phase represents the child's efforts to retrieve his mother through a display of distress while his angry reproaches serve the function of maintaining her proximity to him through the anxiety and guilt engendered by his behavior. The phase of despair is seen as indicative of loss of hope with the child's active attempts to retrieve the absent maternal figure replaced by preoccupation with thoughts of her and a withdrawal of interest in the external world. In the phase of detachment the child is seen as giving up hope and having entered into a phase of emotional detachment where painful feelings directed towards the attachment figure are denied and interests withdrawn more completely from the world of human objects (Adam, 1985). In each of these phases the child has been noted to be prone to tantrums and episodes of destructive behavior which Bowlby has described as being often "of a disquieting destructive violent kind."

In the present study, several of the subjects in the DSH group were described as detached, unemotional, frequent temper tantrums and episodes of destructive behavior. One of the subject's (Bobby) life history

information illustrates this further:

Bobby's mother abandoned him soon after his birth. By the time Bobby was three, he had been in nine different foster homes. In his first foster home, Bobby was frequently left unattended for extended periods of time and his foster father was reported to have physically abused Bobby on at least three occasions. Bobby had to repeat Grade one twice and while in Grade three, set fire to his school and to a car belonging to a teacher. His referring problems include; frequent temper tantrums, aggression towards adults, lying, stealing, using knives on peers, and suspected homosexual involvement as a prostitute. In the last year, while in treatment, Bobby has made seven acts of DSH. In recent months, the staff have noticed that the acts of DSH have become more serious.

The relationship of earlier patterns of attachment behavior to attachment behavior later in life has attracted attention. Weiss (1982) in his studies on the attachment of adolescents to their parents has shown that while attachment to parents continues in normal adolescents it is eventually transferred from parental figures to another object. His evidence seems to suggest that the quality of attachment remains the same (Adam 1985, suggests this is a single perceptual

system), with similar responses of separation, distress and loneliness in the face of the absence of the attachment figure. Bowlby (1977), has described a number of pathological patterns of attachment in later life which he feels are related to disturbed attachment earlier in life. Among these are chronic yearnings for love and support, anxious attachment, compulsive self-reliance and emotional detachment. These patterns of behavior reflect the lack of trust and insecurity that attachments hold for such individuals, which make it difficult for them to form stable relationships which maintain self-esteem and a sense of continuity in life.

The evidence that suicidal behavior and disturbances in attachment are closely related comes from several sources. Epidemiological studies of attempted suicide and completed suicide have regularly pointed to a higher incident of single status and marital failure than in control groups, and many clinical studies have noted that these individuals experience major difficulties in their interpersonal relationships. Adam (1980) has suggested that clinical studies of individuals seen during the immediate period following suicide attempts suggests a striking resemblance with the behavior of children following brief separations. The actual suicide attempt is

usually preceded by clear communications to a significant other person, and often takes place in a situation where discovery is certain. Significant others and caretakers are often subject to angry, hostile behavior intermingled with pleading and clinging alternating with aloofness and detachment. This is a very interesting observation made by Adam and, coincidently, case file analysis in the present study also confirmed the observations that, following the attempt, the adolescents would often display these particular types of behaviors as reported by supervising therapists and/or child care workers who recorded the threat of self-harm. While the overt communication may appear to be "I want to die" the circumstances surrounding the events and the associated behavior usually clearly state "I don't want you to leave me."

This might explain the finding that the subjects in the DSH group reported that they did not feel they could talk to anyone because they felt no one cared for them. While the overt verbal statement was the expression of rejection and negative self-statements, the clinical meanings might have been closer to "Doesn't anyone care about me?"

The finding that the subjects in the DSH group experienced more frequent resident moves as compared to

the subjects in the no-previous group is associated with a lack of stability in a child's life which has been shown to have an affect in later life (Weiss, 1982; Adam, 1985). In the present study, several of the subjects in the DSH group had experienced ten or more residential moves before the age of five. In fact, one of the subjects had experienced 21 moves prior to the age of four. In both cases it was due to the parents separating and the subjects been taken care of by relatives, friends, or social service agencies.

An interesting finding was that the subjects in the DSH group displayed less verbal and physical aggression in school towards their peers. Pfeiffer (1986) has argued that children who have self-destructive tendencies are typically responding to immediate social and environmental stresses. It could be that the subjects who had not made any acts of DSH use the aggressive release as sort of a cathartic mechanism. Rather than acting inwardly and showing signs of self-harm, these subjects choose to act outwardly and direct their aggressive tendencies towards others.

This might explain, in part, why the subjects in the no-previous DSH group, on the Frost Self-Description Questionnaire, reported a higher level of separation anxiety, from family. Perhaps the lower score in

subjects in the DSH group could be attributed to their inability to deal with separation anxiety. This finding is of interest clinically since it may suggest that the subjects in the no-previous DSH group still have a sense of closeness towards their family. Since these subjects did not experience the degree of chaos and instability as experienced by the subjects in the DSH group, it might well be that they feel there is still hope for some of these subjects returning home to their families. Sam is an example of a subject in the no-previous DSH group, who was admitted due to stealing a bike and having recently (at the time that he was involved in the present study) displayed temper tantrums. He is from an intact family, where he is the youngest of three. His mother and father are both employed and are described as caring and warm parents. They decided to seek residential treatment for Sam because they felt he could benefit by the agencies' programs as Sam was becoming more and more disruptive. They decided on a C.B.A. (care by agreement) and Sam will be returning home at the end of his treatment.

This case illustrates how several of the subjects in the no-previous DSH group could have reported a higher level of separation anxiety from their family.

Nearly all the psychometric tests failed to

discriminate between the two groups. Compared to the life history information, the use of standardized scales and the other tests were not discriminating. Perhaps the variables assessed are not important vis-a-vis suicide, or, the selected sample of emotionally disturbed adolescents may well have minimized differences between the DSH group and the no-previous DSH group. The subjects in the DSH group could have actually had fewer other symptoms as well. This was evident in the correlational significant relationships related to level of depression and level of hopelessness.

This may have been due to what can be termed the "temporal aspects" of using standardized scales and other tests when assumptions are made that a group may be suicidal as opposed to another group. Lester (1972), Beck et al. (1974) and Neuringer (1966) have all stated that ideally standardized psychological instruments should be given immediately following the act of DSH, when the intent and motive are still strong. Unfortunately, this was not possible in the present study. At the time of testing, all forty subjects were at different levels of suicidal thinking, making it difficult to systematically assess their level of self-destructive intent. It might have been that all forty

subjects were not in any state of thinking about self-harm at the time that they were tested. Employing direct measures, such as a suicide ideation scale, might have further validated this hypothesis. The failure to observe differences between the two groups on the scores from the Coopersmith Self-Esteem Inventory, the MMPI (short form) or the Beck Hopelessness Scale provides some substance to this argument. It seems that temporal aspects may be sensitive and very difficult to empirically measure, if a period of time has elapsed since the act of DSH.

9.1 An Initial Attempt to Relate the Concept of Suicidal Career with a Loss Hypothesis

The present research has attempted to identify differences between a group of adolescents who have not attempted any acts of DSH and a group of adolescents who have attempted acts of DSH. The results suggest that there are clear differences between the groups and that these differences can be tied to the early life attachment and bonding process. This mechanism occurs differently for the adolescents in the DSH group as compared to the adolescents in the no-previous DSH group.

The present findings and those of Maris' (1985) study provide further evidence to support the idea that

the suicidal careers of individuals start much earlier than in adulthood. The results of the present study suggests that perhaps one mechanism that may contribute to the start of a suicidal career is that of negative emotional trauma involving loss of a significant other. This loss may involve a person, object, event, a change in residence, and a change in family structure, all of which were significant findings emerging from the present research.

It has been suggested in the literature that children and adolescents who attempt and then go on to complete suicide are more likely to have experienced separations from one or both parents (Pfeiffer, 1979). In the present research this finding was replicated and may suggest that separation from the parent(s) may be an important variable in initiating a suicidal career. Further inspection revealed that these separations were often due to the mothers' being hospitalized, marital separation or death, while the fathers were absent because of marital separation/divorce and transient job settings.

Shaw and Schelkun (1965) argued that the most important social factor involves the feeling of abandonment by the children and adolescents when they lost parents or loved ones through separation, desertion

or death. Another finding that emerged from the present research suggests that the adolescents in the DSH group experienced a greater number of residential dislocations, usually without one or both parents. The types of living situation included living with a neighbor, a relative, a foster home or an institution. These changes in what is perceived as "home" may add to the feelings of insecurity and instability which could suggest why the adolescents in the DSH group had more difficulty in completing several of the psychometric tests, experiencing a greater degree of anxiety in testing situations, showing a higher degree of impulsivity and more difficulty in some of the cognitive measures employed. In addition, the adolescents in the DSH group were found to have a lower level of self-esteem which was seen to be related to the age of separation from the parents.

9.2 Limitations of the Present Research

Several other limitations of the present study require mentioning. In addition to the small sample size, unequal number of females and males, the lengthy time delay between the subjects making the act of DSH and being tested, the present study lacked a proper control group.

It was the initial intent to select a group of

adolescents not in residential treatment centres to serve as a control group, but this was not possible. The nature of the population may have minimized the differences especially in the psychometric data. Even consideration of the use of normative data may have provided difficulties since, some of the norms may be outdated, obtained from other countries, and not available for some of the tests employed. Additionally, certain variables such as socioeconomic levels, location of birth and length of stay in treatment were not controlled since their use would have greatly reduced the sample size even more. On the other hand it may be argued that the only true control method is to use subjects as their own control (i.e., an A.B.A. design). This also is clearly not possible in the present study.

The final limitation of the present study was the lengthy time delay occasioned by the need to gain written consent from the governing bodies such as the Ethics Committee of the University, the two agencies involved, the legal guardian (which included the social worker, the director for children's guardian, the officer of the Solicitor General, Alberta Mental Health and the parents of the subjects). The size of the sample was affected by the time delays and could have been considerably larger which would have been more

conducive to additional analyses.

9.3 Treatment Considerations

The present study would not be complete without offering some suggestions for the treatment and management of adolescents at risk of self-destructive behaviors with special regard to residential treatment centres. In an earlier chapter, several treatment modalities for the individual at risk to self-destructive tendencies was reviewed and with each treatment perspective are specific assumptions and beliefs that are inherent and direct the course of treatment. However, Kendall and Braswell (1985) have suggested that cognitive-behavioral approaches to the treatment of behavioral and emotional problems are not restricted to any one theoretical tenet or single-minded applied technique. Rather, the emerging cognitive-behavioral procedures are diverse yet interrelated strategies for providing new learning experiences which involve active procedures and a cognitive analysis (Beck, 1970; Goldfried, 1979; Kendall & Bermis, 1983). The client and therapist work together to think through and behaviorally practice solutions to personal, academic, and interpersonal problems with a consideration of the affect involved.

Although different themes have emerged from the literature on cognitive-behavior therapy, there appear to be a few principles that serve to guide the cognitive-behavioral therapist, theoretician, and researcher. The following list is adapted from Kendall and Braswell (1985):

1) Cognitive mediational processes are involved in human learning.

2) Thoughts, feelings, and behavior are interrelated making the treatment a cognitive-affective-behavioral approach.

3) Cognitive activities, such as expectations, self-statements, and attributions, are important in understanding and predicting psychopathology and psychotherapeutic change.

4) Cognitions and behaviors are compatible: Cognitive processes can be interpreted into behavioral paradigms; and, cognitive techniques can be combined with behavioral procedures.

5) The task of the cognitive-behavioral therapist is to collaborate with the client to assess distorted or deficient cognitive processes and behaviors and to design new learning experiences to remediate the dysfunctional or deficient cognitions, behaviors, and affective patterns.

As mentioned in an earlier chapter, Beck (1976) has developed a therapeutic approach to the treatment of depression which seems particularly adaptable to suicidal behavior and its correlates (Clum, 1979). Beck's cognitive restructuring approach to treating depression is based on the premise that faulty cognitions are causal of the varied symptomatology underlying depressions. Cognitive restructuring aims "to identify, reality test, and correct maladaptive distorted conceptualizations and the dysfunctional beliefs underlying these cognitions" (Beck et al., 1979, p.83).

In the present study, this approach could be useful in restructuring the subjects in the DSH group's beliefs that "no one cares enough about them" (as they reported). Treatment could involve sessions focusing on dissecting that specific belief by proving the assumptions made by these subjects. Further sessions could attempt to introduce behavioral change by homework assignments, expanding the subjects' social network (involvement in activities) and interfacing new cognitive values. Patsiokas and Clum (1985) suggested that thoughts of suicide are often accompanied by the distorted cognitions and faulty beliefs which serve as the targets of cognitive restructuring. Irrational

beliefs that suicide will change significant others' feelings or attitudes toward the victim or somehow improve the victim's life are common among suicide attempters, according to Patsiokas and Clum (1985). In an attempt to change such beliefs, they conducted a study where fifteen hospitalized suicide attempters were randomly assigned to either a cognitive restructuring problem-solving, or non-directive control treatment, which consisted of ten one-hour individual therapy sessions. The results suggested that changes in hopelessness and suicidal intention occurred for all three treatment conditions, as measured by the objective scales (Scale for Suicide Ideation, Hopelessness Scale, and Means-Ends Problem-Solving Task). However, no significant differences on the self-monitoring of suicidal thoughts were found for the treatment conditions. They suggested that the small number of subjects in each condition and the different levels of suicide ideation between subjects could have accounted for this.

It would be interesting to replicate this paradigm with the adolescents who took part in the present study, in order to provide additional information on this type of treatment for individuals who have made acts of DSH.

9.4 Future Considerations

In addition to what has already been suggested, the following recommendations are provided for increasing the knowledge base for this area of study:

1) Many more follow-up studies need to be conducted within residential treatment facilities, with regard to self-destructive behaviors. This will then provide the framework to extend already existing new theoretical models such as Maris' (1981) suicidal careers perspective. In order to study the careers of individuals, additional longitudinal studies need to be carried out which continue to focus on the individual's life style, including psychological, emotional, cultural, and other meaningful social variables.

2) School and home problems both interact to make the adolescent feel less confident about their abilities and worse about themselves in general. As reported by Davis (1985), the school personnel did not notice or did not report any major concerns about the adolescents in the high risk group. The reported school referrals were mainly for poor performance rather than suspected emotional problems. Difficulty at school is an area that should be assessed more closely.

The finding, in the present study, that the subjects in the DSH group had repeated a year in school

more frequently as compared to the subjects in the no-previous DSH group (even though was no differences were observed in the scale scores from the WISC-R as reported in Table 2), suggests that motivational and emotional aspects may account for this finding.

4) Modelling and other initiative behaviors should be encouraged among staff at both agencies, since the staff may be the only "parental" figure the clients have. Pfeiffer (1986) has suggested that acts of self-harm in children are learned from their parents at an early age. The child learns that self-destructive behavior is one way to cope with life's problems. In the present study, it was found that the subjects in the DSH group had more often parental figures who also made DSH and relatives who had attempted or completed suicide.

5) Currently, both agencies rotate staff members, allowing each child care counsellor to work with each client on a weekly or a bi-weekly basis. It is suggested that in order for an effective therapeutic relationship to develop, a longer period of time be allowed for staff members to work with individual clients. This will serve to instill a certain amount of stability where the individual client can begin to feel secure about a constant environment.

6) The reporting and assessment of an act of DSH through

the use of the threat of Self-Harm report requires modification. Presently very little, if any, information is reported on the events that led up to the act of DSH; specifically, the mood of the client. Was there evidence of feelings of worthlessness, hopelessness, or helplessness? Was there any sign of depression? Was there impairment or incapacitation following the act? Dependent upon the degree of lethality, the behavior may result in significant episodic impairment of function (Kahan & Pattison, 1984).

7) The staff should be made aware of the possible predisposing factors in an act of DSH such as disruption or lack of social support relationships/systems. This may include family disruption; divorce or separation; death of a parent, spouse, friend; social isolation; drug and alcohol abuse; depressive and suicidal ideation; few residential moves; reporting to a lack of emotionally bonding to any adult figure and several repeated school grades.

8) Regular workshops, in-services and meetings among staff to discuss their own feelings and thinking regarding various forms of self-destructive behaviors and the topic of suicide in general. Davis (1985) has suggested that people's own feelings and attitudes

towards suicide affect their level of effective treatment. Davis points out that there is almost no instance in a therapist's professional life when consultation with a peer is as important as when he/she is dealing with a suicidal client. Frustration, helplessness, anger, and countertransference are all problems that one may encounter.

9.5 Final Comment

One finding that emerged from the present research (Table 2) was that of the five subjects who were adopted at birth or shortly after; there was a lower incidence of physical (10%), sexual (15%) or emotional abuse (10%) as compared to the other subjects. This was also true for the two subjects who were in the DSH group (10% as compared to 30%). This is interesting because couples applying for ward adoption through the Province of Alberta are rigorously screened to determine their suitability to become adoptive parents. Assessments are made of their physical and mental health. They are subject to nation-wide criminal record checks and are required to submit character references. The stability of their marriages and ideas on parenting and discipline are taken into consideration by the licensing authorities.

Could the day arrive when this procedure is employed for all prospective parents wanting children?

Should prospective parents be tested for physical disabilities, mental instability and have their attitudes on raising children assessed before they are given the go-ahead to raise their offspring?

Finally, the present study strongly maintains the belief that children are our most precious resource. Therefore, future efforts in directing and structuring educational programs for prospective parents on issues of child-rearing, communication patterns, developing trust and dealing with family crisis, are fully endorsed.

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APPENDICES

APPENDIX A

OPERATIONAL DEFINITIONS OF VARIABLES STUDIED

Variables	Definitional Levels
Age:	- Year of birth - Month of birth - Day of birth
Sex:	- Male - Female
Agency:	- Wood's Adolescent Centre - William Roper Hull Home
Place of Birth:	- Alberta - British Columbia or Manitoba - Eastern Canada - United States - Northern Territory - Outside North America
Setting:	- Rural (less than 5,000 people) - Town (greater than 5,000, less than 10,000) - City (greater than 10,000)
Ethnicity:	- Caucasian - Native - Black - Oriental
Number Years in Calgary	- Two digit number
Educational Level of Parents (Natural mother, natural father, present mother and present father; separately)	- Grade 9 or less - Grade 11 completed - Grade 12 completed - Post secondary education (Technical, College or University)

Occupational Level of of Parents (Natural mother, natural father, present mother and present father)	- Unskilled (laboring type jobs) - Clerical/semi-skilled - Domestic (homemaker-at home full-time) - Professional
Financial Situation of Parents (Present Parents/Guardian)	- Neither parent working - On social assistance - One parent working - Both parents working
Number of Residential Moves to 1985	- Number of times the subject has actually moved from one residence to another, with a minimum time of one month at any one time to count (two digit number)
Marital History of Parents (natural, present, separately)	- Still married - Divorced - Widowed - Remarried - Single now
Subject born out of wedlock	- Documented evidence from at least two sources that the subject was born prior to the natural parents living together; either as common-law or formal marriage
Subject Adopted	- Documented evidence from at least two sources that the subject was legally adopted; and that the subject was given up by the natural parents.
Expressed Marital Problems (natural & present parents separately	- Documented evidence from at least two sources of expressed: -poor verbal communication between the couple/frequent conflicts -expressed sexual problems -expressed drug/alcohol problems -psychiatric admission -confirmed criminal record

Suicide History of Parents (natural & present separately	- Any documented: -suicide threat: confirmed by verbal statements -suicide attempt: an actual attempt requiring medical intervention and stay in hospital -death from suicide: subject's parent actually committing suicide -any immediate relative committing suicide: included are the subject's uncles, aunts, grandparents, brothers, sisters and other emotionally significant others
Age of Subject's Separation from Natural Parents	- Documented evidence of actual physical removal of subject from parents occurring in the early childhood of the subject
Age of Subject's Separation from Present Parents	- Documented evidence of actual physical removal of subject from parents occurring in the childhood of the subject
Any Major Physical Illness or Handicap Prior to Subject's 1st Birthday	- This includes any complication at birth, physical defects, detected physical abnormalities that have been verified medically
Birth Order of Subject	- Only child - Youngest child - Middle child - Oldest child
Number of Natural Siblings	- Two digit number
Number of Step Siblings	
Living Arrangements of Subject's Siblings (done separately for natural & step)	- Living at home - Living independently - Institutionalized (mental, jail, other residential treatment centres) - Dead

Legal/Criminal Problems of Subject - Actual evidence of subject been convicted and having been sentenced for:
-breaking/entering
-drug trafficking
-alcohol abuse
-firesetting
-prostitution

School Difficulties - Any documented evidence of:
-truancy/AWOL
-physical aggressiveness to peers
-disruptive/discipline problem
-motivation/attention problem
-verbal aggression (swearing/screaming)
-sexual inappropriateness

Problems With Peers - Any documented evidence of:
-verbally aggressive
-physically aggressive
-shy/withdrawn
-sexual inappropriateness

Any Reported Incidence of Eneuresis

Any Reported Incidence of Encopresis

Subject's Early Life Negative Trauma (Major Loss)

Neglect - Documented evidence from two independent sources, stating subject was not nurtured or cared for with the proper affection.

Unwanted - Documented evidence from two independent sources, stating subject's family environment did not foster affection needs and there was a clear message from one or both of subject's parents as to their lack of committment to parenting.

Poor Father-Child Relationship	- Documented evidence from two independent sources, stating a chronic pattern of disruptive, unstable, and negative type interaction between subject and father figure.
Poor Mother-Child Relationship	- Documented evidence from two independent sources, stating a chronic pattern of disruptive, unstable, and negative type interaction between subject and mother figure.
Subject Having Been Sexually Abused	- Documented evidence from at least two independent sources, stating the subject had experienced abuse of a sexual nature by one or more of the following people: -close relative (father, brother, uncle, or grandfather) -nonrelative (anyone outside the family network)
Subject Having Been Physically Abused	- Documented evidence from at least two independent sources, stating the subject had experienced abuse of a sustained physical nature by one or more of the following people: -father figure (including step-father, or common-law, live-in boyfriend) -mother (stepmother, father, current girlfriend, or common-law girlfriend) -in care (while the subject was under foster care, or in any other setting under the auspices of Social Services, Child Welfare or the Solicitor General Officer)

Suicide History of Subject	- (Information used to screen subjects into either the DSH Group or the No-Previous DSH Group). - Documented evidence of the following existing in the subject's history: -a documented suicide history consisting of: the presence of suicide ideation; the presence of suicide gestures; the presence of suicide threats; the presence of suicide attempts (past attempts from before the subject entered the residential system); recent suicide attempts (these are attempts made within the last year and while the subject is receiving mental health service. These are recording typically through the use of a threat of Self-Harm Report, which should be available for all recent attempts). - Also noted any reported evidence of subject's drawing or writings reflecting themes of death, dying, or "wanting to die." - Subject attempts to let others know. These would be (verbally and written): -staff (including therapists, counselors, child-care workers or any other individual employed at the agencies).
Actual Suicide Methods Used by Subjects (These are described in the Threat of Self-Harm Form)	- Hanging - Wrist slashing - Drug overdose - Carbon monoxide poisoning - Jumping - Drowning - Gunshot wound

History of Depression - Documented evidence of any of the major vegetative signs, such as loss of sleep, loss of appetite, loss of energy, a sense of helplessness, sadness or hopelessness; over a repeated period of time.

Subject Reports to Having an "Emotional and Caring" Significant Other - Each subject was asked the following questions:
1) Do you have anyone you would consider close enough to talk openly and freely?
2) If so who? (subjects responded by saying either their mother, father, or other relative or friends).
3) Subjects were allowed to describe their significant relationship and were directed to focus in on the emotional aspects of their relationship, specifically, how significant this relationship was to the subject.

Subject Reports to Engaging in High Risk Activities - Each subject was asked to describe their activities and attention was given to subjects reporting activities that were typically high risk ones such as reckless driving, or skiing; the crucial aspect was either the use of speed making the activity more dangerous or life-threatening. Each case file was also examined in an effort to validate the subject's claims.

Intelligence Measures - Subjects' case files were examined and since both agencies require an intellectual assessment upon admission, the following scores were obtained for each subject:

WISC-R
- Full Scale I.Q. score
- Verbal Scale I.Q. score
- Performance Scale I.Q. score

School Measure - In addition, information was gathered on the performance of each subject in school and in particular, the number of grades repeated or failed. This was usually available for each subject on a standard year end school evaluation or report card.

APPENDIX B

DEFINITIONS OF STATISTICAL TERMS

Chi-square - is a test of statistical significance which helps to determine whether a systematic relationship exists between two variables. This is accomplished by computing the cell frequencies which would be expected if no relationship is present between the variables, given the existing row and column totals marginals. The expected cell frequencies are then compared to the actual values found in the table.

eta - By itself the chi-square statistic determines whether the variables are independent or related. It does not tell us how strongly they are related. eta is a measure of association when the independent variable is nominal level and the dependent variable is interval or ratio level. It is basically an indication of how dissimilar the means on the dependent variable are within the categories of the independent variable. when the means are identical, eta is zero. If the means are very different and the variances within the categories of the independent variable are small, eta increases toward its maximum value of one.

Lambda - is a measure of association for cross-tabulations based on nominal-level variables. The maximum value of lambda is 1.0, which occurs when prediction can be made without error, i.e., when each independent variable category is associated with a single category on the dependent variable. A value of zero means no improvement in prediction.

Eigenvalue - it is a measure of the relative importance of the function. The sum of the eigenvalues is a measure of the total variance existing in the discriminating variables. When a single eigenvalue is expressed as a percentage of the total sum of eigenvalues, it presents as a way to assess the relative importance of the associated function.

Discriminant analysis - the aim of discriminant analysis is to statistically distinguish between two or more groups of cases. To distinguish between the groups the researcher selects a collection of discriminating variables that measure characteristics on which the groups are expected to differ.

Wilks lambda - a measure of association used in discriminant analysis to test for the statistical significance of discriminating information not already accounted for by the earlier functions. Lambda is an inverse measure of the discriminating power in the original variables which has not yet been removed by the discriminant functions - the larger lambda is, the less information remaining.

Rao's V - one of the criteria for selection of variables in the discriminant functions. The variable selected is the one which contributes the largest in V when added to the previous variables. A variable which contains a large amount of information already included in the previously selected variables may actually cause a decrease in the value of V. This implies a decline in discriminatory power since the group is being brought more closely together. One would not want to include such a group.

T-test for two independent samples - where the cases are classified into two groups and a test of mean differences is performed for specified variables. The t-test provides the capability of computing Student's t and probability levels for testing whether or not the diffference between two sample means is less than chance. When the two populations have the same variance t-squared is similar to the F-test of sample variances.