DEMOCRAPHIC AND PSYCHOLOGICAL PREDICTORS OF
SUICIDE ATTEMPTS AND IDEATION
AMONG ADOLESCENTS

THESIS

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Heather Leonhardt
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The present study attempted to identify demographic and psychological variables predictive of adolescent suicidal ideations and attempts. Data from 90 adolescents, who completed an intake form at a university community mental health clinic or were student volunteers, were utilized. Two judges tabulated information regarding age, gender, number of siblings, ethnicity, parental marital status, drug use, depression, suicidal ideation, and previous suicidal attempts. A multiple regression analysis was performed to identify which variables had predictive significance. Depression was the best predictor of both suicidal ideations and attempts. Ethnicity was also predictive; white adolescents were found to be at higher risk for suicide than individuals from other ethnic groups. It is suggested that additional studies be done exploring other predictors of suicide among adolescents.
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According to mass media reports, suicide attempts, particularly among adolescents and young adults, are on the increase (Dallas Morning News, 1988; Ladies Home Journal, 1987). However, there is a paucity of studies exploring the variables that may be predictive of suicidal behavior. Suicide attempt has often been referred to as parasuicide. Parasuicide has been formally defined as, "a non-fatal act in which an individual deliberately causes self-injury or ingests a substance in excess of any prescribed or generally recognized therapeutic dosage" (Kreitman, 1977, p. 3).

Numerous studies exploring correlates of suicide have been done (Victoroff, 1983). In general, a number of background and personality variables have been found to correlate with this behavior. However, a scarcity of studies exists exploring correlates of parasuicide. Further, of those studies which have been done in this area, few have examined the correlates of this behavior in children and adolescents.

Empirical investigations of suicide attempts among adolescents would seem to be important for several reasons.
First, previous research has found that individuals who attempt suicide and survive are more likely to attempt suicide and succeed on subsequent attempts (Kreitman, 1977). Identification of suicide attempters may have predictive implications for individuals as risk for suicide since by identifying and intervening with individuals who attempt suicide, the number of successful suicides may be reduced. Additionally, the study of variables predictive of suicide attempts may have implications for working with adolescents and others who have emotional disorders, especially depressive, or family problems.

A paucity of studies exists examining correlates of parasuicide. Therefore, theories and findings related to suicide will be summarized in the following sections. This will be followed by a survey of what has been theorized regarding parasuicide and findings related to this behavior.

Demographic Correlates of Suicide

As indicated previously, little research exists which is designed to explore correlates of suicide attempts. However, several studies have attempted to identify variables related to suicide. A decade ago, suicide was the third leading cause of death, behind accident and homicide, among adolescents and young adults in the United States in 1978 (Holinger, 1978). The years 1961-1975 saw
the age-adjusted suicide rate in the United States jump from 10.4 to 12.7 per 100,000. The two age groups which represented the greatest amount of change were the 15-24 year olds, with an increase of 131 percent and a rate of 11.8 per 100,000 in that 14 year time span, and the 5-14 year olds, with an even greater increase of 150 percent corresponding to a rate of 0.5 per 100,000.

The years 1975-1980 saw another increase in the suicide rate in the United States. For the young people, numerous studies on completed suicide suggested that the rates added up to an 80 percent increase in incidence in children 10-14 years old, and more than 100 percent increase for adolescents 15-19 years of age (Shafii, Carrigan, Whittinghill, & Derrick, 1985). For 1982, the rates were 1.1 per 100,000 in 5-14 year olds, 8.7 per 100,000 for 15-19 year olds, and 15.1 per 100,000 for 20-24 year olds (U.S. Vital Statistics, 1984).

Suicide is now the second leading cause of death among young people in the United States (U.S. Vital Statistics, 1984). As a result, studies on the relative incidence of suicide among young people have become of concern to both professionals and laymen.

Although suicide is a common cause of death among adolescents, it is poorly understood. Existing research on suicide in general has concluded few things with
confidence. The most basic focus is on the demographic factors that identify the successful suicide. Among those characteristics that occur reliably are those that follow.

**Actuarial Correlates of Suicide**

Suicide rates have been found to be consistently higher for males than for females, with a ratio ranging from 2-3:1 (Cosand, Bourque, & Kraus, 1982; Holinger, 1978). Females who succeed in committing suicide have made more previous attempts than corresponding age males; this appears to be due to the method of choice. More males chose to commit suicide using a gun, while more females use poison or drugs, which have a higher failure rate. Over the past 15 years, the suicide rate for younger males has increased, as has the rate for young females. Suicide is much more common among whites than nonwhites; in 1982, statistics indicated that the suicide rate for whites was twice that for other races combined. Suicide rates differ with geographical region and shift through the years. Statistical data for 1982, for example, indicate that the Mountain region had the highest rate at 17.4 per 100,000, while the Middle Atlantic region had the lowest, at 8.8 per 100,000 (U.S. Vital Statistics, 1983). Method of suicide is highly variable, but the use of firearms is more common in males than females by a ratio of at least 3:1. As a result of the above statistical, demographic data, other
studies have attempted to isolate risk factors that may identify the child or adolescent that may succeed in committing suicide. Overall, the best demographically substantiated predictors of successful suicide in adolescents aged 10-24 were (1) presuicidal familial loss/disruption; (2) inability to adapt to adult roles; and (3) psychological maladjustment (Cosand et al., 1982).

A partial list of the parameters/characteristics that may serve to identify the successful adolescent suicide include: (a) loss of love object through death, separation, or rejection; (b) conflicts over genital oedipal wishes; (c) dependent attachment to parents; (d) bisexuality; (e) inability to establish adult identity; (f) social disintegration; (g) broken homes; (h) family mobility; (i) intrafamily conflict; (j) problems in school; (k) peer conflict; and (l) conflicts with other social institutions (Cosand et al., 1982).

Theoretical Models of Suicide

The etiology of parasuicide is unclear and various theories have been proposed regarding suicide. However, theories attempting to account for why people either attempt or commit suicide are in most instances ambiguous and vague.

A dynamic formulation focuses on four critical phases: individuation, differentiation of self from the
environment, inner control, and self-concept. In children and adolescents, these can be viewed as interrelated in the following manner. The child becomes overly dependent on a parent, usually the mother, and does not individuate from her at the appropriate stage of development. Therefore, he or she lacks a sense of identity, often particularly the sexual identity, making adolescence a particularly confusing and difficult period. The child then bases his or her self-concept on perceptions of social conformity and proper behavior; he or she responds to external cues rather than internal ones. The child resorts to suicide as an escape from the environment in which the child feels he or she does not fit.

Psychoanalytically, suicide has been most closely tied to two interrelating concepts: depression and the death wish. In the psychoanalytic concept of depression, the depression is likely to develop when the person maintains an attitude of hostility toward someone the person loves or feels he or she should love. Feelings of hatred are repressed, which leads to guilt and self-punishment. As described by Leonard (1967),

Suicide is seen as the wish to kill an introjected love object; the wish to be killed; and the wish to die. Hatred, anger, and ambivalence are turned upon the self in an aggressive action intended to destroy
both the person himself and the representations within him of others whom he sees as both hatred and loved objects. (p. 307)

Thus, the superego turns aggressive rage upon the self, constituting an attack upon the representations of hostile or ambivalent feelings. This can be precipitated by real or imagined object loss.

The death instinct was first suggested by Freud. Freud (1920/1955) declared that no man can realize his own death because he is unable to integrate the fact of his own nonexistence into his timeless fantasies of immortality. To accommodate the incontrovertible fact of an inescapable progression toward death from the moment of birth, he formulated the concept of the death instinct, describing it as a catabolic process which, most often operating unconsciously, exerted a variable influence in bringing about eventual termination. In its most obvious expression, the death instinct could be seen in the form of overt suicide or direct self-destructive behavior.

(Farberow, 1980, p. 15)

Farberow (1980) points out that Menninger (1938) developed the death instinct concept more completely, suggesting a balanced coexistence between the opposing forces of the life and death instincts, Freud’s Eros and Thanatos. He
suggested that this state is constantly changing, and can, under the influence of diverse patterns of guilt, aggression, and eroticism, produce various self-injurious behaviors. It is important to note, however, that Freud himself concluded, at a conference on suicide in Vienna in 1918, that psychoanalytic approaches to suicide had not produced any solutions.

Others have proposed that suicide can be attributed to sociological variables. Emile Durkheim (1951) was a major proponent of the social factors involved in suicide. He suggested that during periods of rapid social change, the individual’s ties to the group are loosened, making individuals who are vulnerable to social change feel alone. Related social theories suggest that there is a modeling or disinhibiting factor involved when a relative or close friend commits suicide, that makes the risk for the survivors greater. Even the suicide of an individual who is a stranger, but in circumstances that another perceives as similar tends to have a disinhibiting influence, helping account for the rash of suicides that often break out after a publicized suicide incident in a community (Durkheim, 1951).

There is even a strong contingent of support for a biological view of suicide. This theory suggests that chemical imbalances prevent the body’s normal mood modulations to occur (Maris, 1986).
The problem of the theoretical formulation of a suicide etiology is perhaps best summed up by Zilboorg (cited in Wolff, 1970), who states: "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 cause for even a strictly empirical solution" (p. 53). Although that was written in 1936, little has changed to alter its basic premise.

Parasuicide

It is unclear as to what a suicidal attempt is. Different researchers have proposed different categories for individuals who deliberately injure themselves. It was first suggested by Stengel and Cook (1958) that "attempted suicide" might represent a different psychological phenomenon than incomplete suicide. They particularly stressed the social and communicational aspects of attempted suicide. In 1965, Kessel (cited in Kreitman, 1977) suggested that "attempted suicide" should instead be defined as "deliberate self-poisoning" and deliberate "self-injury." He stated that

... for four-fifths of the patients the concept of attempting suicide is wide of the mark. (The patients) performed their acts in the belief that they were comparatively safe—aware, even in the heat of the moment, that they would survive their
overdosage and be able to disclose what they had done in good time to ensure their rescue. What they were attempting was not suicide. (p. 2)

Kreitman (1977) makes two generalizations from this. First, the individual has the intention to initiate an act of self-damage. Second, there are ultimate objectives which the individual may have set as goals or outcomes of this action. Parasuicide, therefore, seems to differ from a serious suicide attempt that failed. The lethal potentiality of parasuicide is of concern, however, as there are those individuals who misjudge their actions and time available for rescue, and do, in fact, succeed in killing themselves.

Generally, parasuicides and suicides are epidemiologically distinct (Kreitman, 1977), however, there is some overlap between the two. Perhaps more importantly, the risk of suicide following a parasuicide is significantly greater than for a sample of comparable individuals from the general population (Kreitman, 1977). There is further indicating from epidemiological studies in Great Britain that this risk of suicide is about 100 times greater among those who have had a parasuicide, and the risk is highest shortly following the parasuicide.

Correlates of Parasuicide

Study of suicide has traditionally focused on the successful suicide. Who?, how?, when?, and why? have been
the pressing questions, generally asked after the death. However, there is a limit to the usefulness of this information. The demographic classification and psychological autopsy of the victim does not always identify the attempter, and there are usually more attempted suicides than there are those who complete the act.

Factors that have been associated with adolescents who attempt suicide have come primarily from the literature describing parasuicide. These factors include sexual and physical abuse, school isolation by school absence, physical health complaints, mental health problems, and anti-social behavior.

Some etiological factors have been proposed regarding adolescent parasuicide. In 1981, Anderson (cited in Brooksbank, 1985) suggested a list of reasons which include hate, revenge, loneliness, isolation, shame, guilt, and loss of self-esteem. Two particular groups of etiological factors stood out in Kerfoot's (1980) review of the literature—psychodynamic and family. Psychodynamic factors were parental deprivation in childhood (Koller & Castanos, 1968, cited in Brooksbank, 1985), parent-child role reversal (Kerfoot, 1980, cited in Brooksbank, 1985), hostility directed toward the parents, and sexual difficulties (Schneer, 1961, cited in Brooksbank, 1985), inwardly
directed hostility and aggression (Freud, 1958, cited in Brooksbank, 1985) and identity based on identifications and roles which at critical stages of development have been presented as most undesirable or dangerous and yet as real (Erickson, 1968, cited in Brooksbank, 1985).

Family factors include relationship problems, which included having immature mothers and absent or disliked fathers (Margolin & Teicher, 1968, cited in Brooksbank, 1985), emotionally detached parents (Schrut, 1964, cited in Brooksbank, 1985), lack of warmth among family relationships (Taylor & Stansfeld, 1984, cited in Brooksbank, 1985), extremes of parental expectations or control (McIntyre, 1977, cited in Brooksbank, 1985), psychiatric disorder in a close relative, especially parasuicide in a close relative or friend (Hawton, 1982; Lunsden & Walker, 1980; cited in Brooksbank, 1985), alcohol abuse in a parent (Schaffer, 1974, cited in Brooksbank, 1985), loss by death, desertion, separation from a significant other (Hawton, 1982; Koller & Castanos, 1968; Margolin & Teicher, 1968; cited in Brooksbank, 1985). The prediction of suicide from parasuicides was studied by Tuckman and Youngman in 1963, who concluded that "The more closely individuals approximate to complete suicides with respect to sex, race or age, the higher their suicide risk" (cited in Kreitman, 1977, p. 166). Kreitman (1977) identified further trends; among male
suicides, diagnosed personality disorder was common, often associated with alcoholism or drug dependence; females were characterized by no formal illness and acute situational reactions.

Kreitman (1977) reports the results of a 1970 study which distinguished suicides by two subgroups--those that had a history of parasuicide, and those that did not. Kreitman (1977) described the parasuicide group as chronically disorganized, and characterized by psychological instability and social disruption, evidenced by interpersonal conflicts, and drug and alcohol dependency. They also, as a group, had contact with mental health professionals as well as other general health practitioners. They generally carried out the act in the close vicinity of others, and most commonly used poison. In contrast, the nonparasuicide group was described as acutely disrupted, and was characterized by comparatively stable lives based on a key other; loss of this other person was devastating and often the precipitating factor in the suicide. Another factor seemed to be a physical disability with which they could not cope. Both involved a failure to adjust to change (Bunch, 1971, cited in Kreitman, 1977); over half had personality disorders, though not sociopathic. All studies, again, utilized an adult population.
Suicide and Parasuicide

It is possible that although parasuicide and suicide may be etiologically different, and of different intent, both behaviors often accomplish the same result, namely the death of the individual concerned. Although the rate of subsequent suicide among parasuicides is high, the differentiating characteristics of the parasuicides even in an adolescent population would be helpful to identify them even before an episode of parasuicide. This predictive ability should aid the mental health community in slowing down the rate of self-inflicted death.

Suicidal Ideation

It is intuitive that in order for a person to attempt or commit suicide, many individuals should first entertain thoughts of suicide. Suicidal ideation, therefore, is viewed as a precursor to suicide attempts. There has been some suggestion that the expression of suicidal impulses in young people is part of the normal developmental process. However, the evidence is to the contrary. Numerous studies support the view that suicidal ideation is related to suicide and suicide attempts (Sudak, Ford, & Rushforth, 1984). One such study (Shaffer, 1974) found that 46 percent of children who committed suicide in England and Whales from 1962-1968 had previous suicidal thoughts, threats, or attempts and eight of those indicated their
suicidal tendencies within 24 hours of their deaths. Among psychiatric outpatients, 33 percent of the children showed suicidal tendencies (Pfeffer, 1980).

Other empirical studies that have used suicidal ideation as a predictor of suicidal behavior have found a high correlation between suicidal ideation and other predictor variables, particularly Depression (Kostky, Silburn, & Zubrick, 1986). Although some authorities have maintained that suicidal individuals are generally unreliable in reporting suicidal ideation, studies exploring suicide among adolescents have found that among adolescent populations suicidal ideation or plans and Depression were the best criteria for predicting imminent danger of suicide (Rotheram, 1987). It would seem reasonable therefore, that studies designed to predict suicidal ideation would utilize suicidal ideation as a predictor of adolescent suicide. Where information is available as to the adolescent’s thoughts of suicide, these should be used in a manner which may facilitate intervention and prevention of the progression to the next step of suicide attempts.

Summary and Purpose

The vast majority of studies attempting to identify variables that correlate with suicide and parasuicide have utilized adult populations. However, the increasing
incidence of self-inflicted deaths in adolescents and children has alerted the parents, schools, and community groups to the risks of suicide in these age groups. The identification of the appropriate age-specific variables for this population would better enable the primary caretakers and contacts with this age group to intervene early in the chain of events that may lead to suicide. Regardless of how suicide attempts have been conceptualized, as mentioned earlier, suicide attempts tend to be one of the best predictors of individuals who ultimately kill themselves. Going one step further, suicidal ideation is the step that usually precedes the suicide attempt; if adolescents who are actively thinking about or planning a suicide attempt are identified at the planning stage, intervention may have a greater likelihood for success.

It would appear to be useful, therefore, to explore potential predictors of adolescent Suicidal Attempts and Ideation. This study will attempt to identify personality and demographic predictors of suicidal ideations and Attempts in adolescents.

Method

Participants

Participants consisted of adolescents who visited the University of North Texas Psychology Clinic between the
years 1982 and 1988. All participants were from 13 to 18 years of age.

Data consisted of information taken from the clinic files of 65 adolescents from 13 to 18 years of age (mean age = 17.15) who filled out an intake form at the clinic, regardless of presenting problem. Of these, 23 (35%) were male and 42 (65%) were female. Within these two groups, 16 files (25%) were those of adolescents who indicated on the intake form that they have thoughts of suicide, while the remainder was composed of adolescents who denied suicidal ideations. An additional group of 25 individuals were also asked to fill out the clinic intake form. This group consisted of 18 year old college freshmen who were enrolled in a required university course and asked to fill out a clinic intake form. Of these, eight were male and 17 were female. Within this group, 18 percent indicated on the intake form that they had recently thought about suicide. (Of those admitting to recent suicidal ideations, one was viewed as being actively suicidal by the examiner, judges, and supervisor of this project. This student was referred to the counseling center for further evaluation and possible treatment.)

Overall, data from 90 adolescents was utilized in this study. Of these, 64 percent (N = 58) were female and 36 percent (N = 32) were male. Forty-six and two-thirds
percent \((N = 58)\) came from homes where their parents were married, while 53.33 percent \((N = 48)\) came from single parent families or families that had experienced a disruption in the parental marital unit. Of the adolescents sampled in this study, 86 (95.5\%) were Caucasian, with 3.33 percent Black and 1.11 percent of other ethnic backgrounds. Drug or alcohol use was admitted by 18 adolescents (20\%), while the remaining 72 (80\%) did not indicate that they were involved with drugs or alcohol. The intake clinician had described 21 adolescents (23.33\%) as Depressed on intake.

**Data Sources**

Two sources of information contained in all files at the University of North Texas Psychology Clinic were utilized by the clinicians evaluating the files. These include the Intake Report and the Termination Report.

**Intake report.** The intake report is prepared by the clinician who first sees the client for therapy at the clinic. Although the exact format may vary, the intake report is typically two pages in length and consists of the reason for referral, a description of the client including clinical observations of the client, social history, and summary and recommendations. The reason for referral usually consists of a paragraph summarizing the client's reasons for requesting therapy, or in the case of a child
or adolescent, the reason the parent requested therapy for the child, and a description of the client's symptoms. The observations section is composed of a physical description of the client, with specific focus on any symptoms which may be indicative of mental illness. The social history section typically consists of a brief statement about the client's family, educational and employment background, any physical disorders, previous mental illnesses, and any events perceived as contributing to the present disorder. The summary and recommendations section consists of a summary of the pertinent information contained in the previous sections, and the intake clinician's evaluation of the status of the case, along with recommendations for intervention.

In some cases, an assessment is performed in order for the client to be more completely evaluated before treatment considerations are made; the assessment report would also be a valuable source of information contained in the client's file. The assessment was conducted by a student who has had courses in both mental abilities and personality assessment. The assessment report typically consists of the results of at least four psychological tests designed to identify the client's mental abilities, as well as assess the presence of a wide range of mental illnesses, including depression, anxiety disorder, and
psychosis. All reports conducted by student clinicians are supervised by a licensed Ph.D. level psychologist. The results of the assessment report, where available, were included as part of the information gathered from each file.

**Termination report.** The second source of information found in each file is the termination report. This is completed by the clinician who conducted the therapy sessions with the client. The report is typically two pages in length and includes the reason for referral and treatment summary. The reasons for referral is a reiteration of the presenting problem explained in the intake report, perhaps including some refinement based on an assessment report. The treatment summary outlines the methods used in therapy, progress made, and reason for termination. These sources of information provided the bulk of the data, along with the basic intake form, which was evaluated by the clinician-judges.

**Clinicians**

Clinicians consisted of graduate students in clinical and counseling psychology with at least one year of assessment experience. They are supervised by doctoral level licensed clinical and counseling psychologists. Clinicians' summaries were simply the clinicians' impressions of the adolescents' files they examined.
Judges

Two judges were used. Both judges were Master's level clinical psychologists. Neither judge was familiar with any of the clients or the purpose of this study.

Procedure

For the clinic population, data from the files of the university-based community mental health service center was reviewed by both judges. The 66 records reviewed spanned the years 1982-1987. All information was such that would be filed according to the client intake and therapist contact forms maintained for the clinic records. No client contact was initiated for the purpose of this study, and confidentiality of data was strictly maintained; no names were attached to demographic information. Initially, the clinic files of adolescents seen in the last five years were identified by the experimenter. Those individuals who have marked "Suicidal Ideation" on the intake form were included in the study along with a sample in the same age range who have not. Clients are referred to this mental health center for a variety of reasons, not necessarily because of a suicidal attempt or parasuicide. The specific data collected consisted of the client's age, gender, number of siblings, whether the client has a history of drug use, ethnicity, whether the client was viewed as being depressed by the
intake clinician, and the number of any previous suicide attempts.

Those records identified by the experimenter were submitted to the judges for their review. Each judge was asked to read the intake form, intake report, assessment report (where available), and termination report contained in each client's file. Next, the judge indicated on a checklist whether the above described information suggested that suicidal ideations or attempts are present, and also recorded information about the client's background and emotional status. Each judge reviewed each file independently. Also, judges were unfamiliar with each client whose file they reviewed. Following the review by judges, the data of those clients who have been rated the same way on the presence of suicidal ideation or attempts by both judges were used.

The 24 additional undergraduate subjects were asked to fill out an adult symptom checklist and a clinic intake form. This data was then reviewed with each undergraduate by both of the judges independently, in the form of a brief clinical interview. No names were attached to the forms. Individuals who were rated the same way by both judges with regard to the presence of suicidal ideation, were included in the study.
Results

This study explored the predictive validity of background and emotional variables on Suicide Ideations and prevent suicidal attempts. To do this, a stepwise multiple regression analysis was computed. The predictor variables consisted of client age, gender, number of siblings, ethnicity, parental marital status, whether the client has a history of mental illness, whether the client has a history of drug or alcohol use, and whether the intake clinician diagnosed the client as being depressed. The first criterion variable was whether the adolescent reported having suicidal ideations within the last year. The second criterion variable was whether the adolescent has a history of suicidal attempts. The third analysis utilized a combination of both the adolescent’s suicidal ideations within the past year and the past suicidal attempts. The correlations between all predictor and criterion variable are summarized in Table 1. Results of the multiple regression analysis may be found in Table 2.

One purpose of this study was to explore the predictive validity of background and emotional variables on suicidal ideation. The regression model was found to be significant ($B = .42; F(1, 87) = 18.73, p < .001$). As can be seen, the variable most predictive of suicidal ideation was depression ($B = .42; F(1, 87) = 18.73, p < .001$). No other variables were found to be significant.
Table 1

Means and Standard Deviations for All Predictor and Criterion Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard Deviation</th>
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<tbody>
<tr>
<td>Age</td>
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<td>Siblings</td>
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<tr>
<td>Parental Marital Status</td>
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<tr>
<td>Drug Use</td>
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<td>3.838</td>
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<tr>
<td>Suicidal Ideation</td>
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<td>.412</td>
</tr>
<tr>
<td>Previous Attempts</td>
<td>.101</td>
<td>.400</td>
</tr>
<tr>
<td>Depression</td>
<td>.236</td>
<td>.427</td>
</tr>
</tbody>
</table>

This study also explored whether those demographic and emotional variables used in the first regression analysis were related to past suicidal attempts. An overall regression was significant ($B = .26; F(1, 87) = 6.19, p < .015$). No other variables were found to be significant.

The third purpose of this study was to explore whether those demographic and emotional variables delineated above were related to the combination of past suicidal attempts or suicidal ideation in the last year. An overall regression was significant ($B = .44; F(1, 87) = 20.78; p < .001$). The variable next most predictive of this combination was ethnicity ($B = -.194; F(2, 86) = 12.77, p < .001$). No other variables were significant.
Table 2

Correlations Between All Predictors and Criterion Variables

(N = 90)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Gender</th>
<th>Number of Siblings</th>
<th>Ethnicity</th>
<th>Parental Marital Status</th>
<th>Drug Use</th>
<th>Depression</th>
<th>Suicidal Ideation</th>
<th>Previous Attempts</th>
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<td>Age</td>
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<td>0.102</td>
<td>0.002</td>
<td>-0.237*</td>
<td>0.354**</td>
<td>0.231*</td>
<td>-0.125</td>
<td>-0.118</td>
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<td>0.421**</td>
<td>0.258*</td>
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</tbody>
</table>

*p < .05; **p < .01
It is interesting to note that age was found to be significantly, but inversely, related to marital status of parents ($r = -0.237, p < 0.05$), as well as drug use ($r = 0.354, p < 0.01$). Age was also significantly related to depression ($r = 0.231, p < 0.05$). Drug use and depression were significantly related ($r = 0.226, p < 0.05$). Suicidal ideation and previous suicidal attempts were significantly related ($r = 0.350, p < 0.01$).

Discussion

This study explored the extent to which background and emotional variables were predictive of suicidal ideation and previous suicidal attempts. The predictive variables consisted of age, gender, number of siblings, ethnicity, parental marital status, whether the adolescent has a history of drug or alcohol use, and whether the intake clinician diagnosed the adolescent as being depressed.

Results of this study revealed that depression was the best predictor of both suicidal ideation and past suicidal attempts. These results are consistent with Kosky's (1986), Rotheram's (1987), and others' findings that a significant relationship exists between suicidal ideation and depression.

Ethnicity was also found to be predictive of the combination of suicidal ideation and past attempts. More specifically, Caucasian adolescents were more likely to
manifest suicidal ideations or engage suicidal attempts than either Black, Hispanic, or adolescents of other ethnic backgrounds. These findings by Page (1971) and more recently in actuarial data reported by the U.S. Bureau of Vital Statistics (1983), which indicate that the suicide rate for whites was twice that for other races combined.

The adolescent's age, gender, number of siblings, parental marital status, history of mental illness, or history of drug or alcohol use were not predictive of suicidal ideations or past attempts. The lack of a significant relationship between gender and suicidal behaviors and thoughts is inconsistent with other reports. For example, the U.S. Bureau of Vital Statistics (1983) found that males are two to three times more likely than females to commit suicide. This same report also indicated that females who succeed in committing suicide have made significantly more previous suicidal attempts than corresponding age males. Kreitman (1977) noted a trend of drug and alcohol use and personality disorder in male suicides, although no such correlation was found in this study. Cosand et al. (1982) reported a list of characteristics to identify the successful adolescent suicide which included broken homes and intrafamily conflict. No significance was found with parental marital status in this study. All of the above studies, however,
focused on completed suicides rather than on those adolescents who might only be thinking about suicide.

Research relating to suicide and parasuicide has traditionally utilized an adult population. However, the increasing incidence of self-inflicted deaths among adolescents and children has made it necessary for those involved with youths today to be aware of the risks of suicide in this population. The identification of variables predictive of suicide in this population would better enable the parents and community contacts of these age groups to intervene earlier in the chain of events that may lead to suicide.

There are several limitations inherent in a study of this kind. First, this study utilized a non-inpatient group. Thus, participants in this study may not have been severely suicidal. Also, the sample size was small. This reduces the extent to which the findings of this study might be an accurate indication of predictors of suicidal ideations in general.

The results of this study would seem to have both practical and research implications. From a clinical perspective, it is clear that depression is highly predictive of suicidal gestures and ideations among adolescents. When working with adolescents, especially white teen-agers, who may be depressed, attention to the
possibility of suicidal thoughts and gestures becomes particularly important. From a research perspective, the finding of a significant relationship between depression and suicidal ideation and past attempts would suggest a need for a better understanding of manifestations of depression in adolescents.
Appendix A

Clinic Admission Form
Name of Student Conducting Intake Interview:  

Fee Assessed ____________________________________________________________________________

Therapy __________________ Assessment __________________ Date: ________________________________

CLINIC ADMISSION FORM

ADULT

Name __________________________________________ D.O.B. ________ Age ________ Sex ________

Last __________________ First __________________ Middle/Maiden __________________

Address __________________________________________ City __________________

Home Phone __________________ Business Phone __________________ SS No. __________________

Business Address __________________________________________

Preferred Address & Phone for Clinic Contact __________________________________________

Who suggested you come here? __________________________________________

Height __________________ Weight __________________ Place of Birth __________________________________________

Marital Status __________________ If married, how long? __________________

Number of Previous Marriages? __________________

PEOPLE CURRENTLY IN HOUSEHOLD INCLUDING YOURSELF

<table>
<thead>
<tr>
<th>NAME</th>
<th>Relationship to Client</th>
<th>Age</th>
<th>Sex</th>
<th>Educational Level</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Client</td>
<td></td>
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</tbody>
</table>
Any children not living in household?

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<thead>
<tr>
<th>Amount of family income</th>
<th>Religious Preference</th>
</tr>
</thead>
</table>

With whom did you live as a child?

<table>
<thead>
<tr>
<th>Mother: Living?</th>
<th>Age:</th>
<th>Town of Residence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Education Level</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Father: Living?</th>
<th>Age:</th>
<th>Town of Residence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Education Level</td>
</tr>
</tbody>
</table>

If both living, marital status: Married | Living together |
| Separated | Divorced |

Brothers and Sisters: Number (Please list details below)

<table>
<thead>
<tr>
<th>First names</th>
<th>Ages</th>
<th>Town of residence</th>
<th>Education level</th>
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<tbody>
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</table>

continue on back if necessary

Any history of psychiatric illness in family? If so, explain:

<table>
<thead>
<tr>
<th>Family doctor:</th>
<th>City</th>
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</table>

Taking any medication? If so, describe:

Ever been hospitalized? If so explain:

<table>
<thead>
<tr>
<th>Family doctor:</th>
<th>City</th>
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</table>
Appendix A--Continued

With what problem do you want the Psychology Clinic to help you?

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

How long have you had this problem? ________________________________________

Have you seen any person or agency in the past about this problem? ____________

If so, who? ______________________________________________________________

Have you been a client of this Clinic in the past? ______________________________

If so, when? ______________________________________________________________

I authorize the Psychology Clinic to provide treatment to me. I understand that the Psychology Clinic is a training facility and that all information obtained, though confidential, may be used for instruction, training, and research, and may be video and/or tape recorded as well as observed by students-in-training at this Facility.

________________________________________________________________________

APPLICANT'S SIGNATURE ______________________ DATE ______________

In case of emergency, the person to contact is:

Name ______________________________ Relationship __________________________

( ) Telephone __________________ Address/City ____________________________

CIRCLE ANY OF THE FOLLOWING THAT APPLY TO YOU NOW:

headaches lying
fearful stomach trouble
heart palpitations immature
often hungry fatigue
bowel disturbances problems in school
temper outburst take sedatives
anger continuous speech
legal problems feel panicky
nightmares confused
aches or pains shy with people
defusions
CIRCLE ANY OF THE FOLLOWING THAT APPLY TO YOU NOW: (continued)

moody
depressed
unable to relax
don't like weekends or vacations
neglect appearance
can't make friends
sleepy during daytime
financial problems
swelling
excessive sweating
twitches
can't keep a job
easily frustrated
problems with friends
elated at times
dizziness
no appetite
trouble falling asleep
overly active
withdrawn
take drugs, how much
what kind
crying spells	numb or tingling limbs
allergies
concentration difficulties

Other:

suicidal ideas
sexual problems
sinus discomfort
heart problems
overambitious
tired of living
inferiority feelings
tired after sleeping
skin problems
memory problems
lonely
often use aspirin or pain killers
problems with family
irritable
fainting spells
speech problems
anxiety
stealing
trouble remaining asleep
alcohol consumption: How much per day
lung problems


can't make decisions
unable to have a good time
problems with opposite sex
ear problems
eye problems
References


