1985

Adolescent Suicide and Life Stress, Problem Solving Ability, Suicide Intent, and Hopelessness.

Sally Hill Stephenson
Louisiana State University and Agricultural & Mechanical College

Follow this and additional works at: https://digitalcommons.lsu.edu/gradschool_disstheses

Recommended Citation
https://digitalcommons.lsu.edu/gradschool_disstheses/4164

This Dissertation is brought to you for free and open access by the Graduate School at LSU Digital Commons. It has been accepted for inclusion in LSU Historical Dissertations and Theses by an authorized administrator of LSU Digital Commons. For more information, please contact gradetd@lsu.edu.
INFORMATION TO USERS

This reproduction was made from a copy of a manuscript sent to us for publication and microfilming. While the most advanced technology has been used to photograph and reproduce this manuscript; the quality of the reproduction is heavily dependent upon the quality of the material submitted. Pages in any manuscript may have indistinct print. In all cases the best available copy has been filmed.

The following explanation of techniques is provided to help clarify notations which may appear on this reproduction.

1. Manuscripts may not always be complete. When it is not possible to obtain missing pages, a note appears to indicate this.

2. When copyrighted materials are removed from the manuscript, a note appears to indicate this.

3. Oversize materials (maps, drawings, and charts) are photographed by sectioning the original, beginning at the upper left hand corner and continuing from left to right in equal sections with small overlaps. Each oversize page is also filmed as one exposure and is available, for an additional charge, as a standard 35mm slide or in black and white paper format.*

4. Most photographs reproduce acceptably on positive microfilm or microfiche but lack clarity on xerographic copies made from the microfilm. For an additional charge, all photographs are available in black and white standard 35mm slide format.*

*For more information about black and white slides or enlarged paper reproductions, please contact the Dissertations Customer Services Department.

UMI Dissertation Information Service
University Microfilms International
A Bell & Howell Information Company
300 N. Zeeb Road, Ann Arbor, Michigan 48106
Stephenson, Sally Hill

ADOLESCENT SUICIDE AND LIFE STRESS, PROBLEM SOLVING ABILITY, SUICIDE INTENT, AND HOPELESSNESS

The Louisiana State University and Agricultural and Mechanical Col. Ph.D. 1985

University Microfilms International 300 N. Zeeb Road, Ann Arbor, MI 48106

Copyright 1986 by Stephenson, Sally Hill All Rights Reserved
PLEASE NOTE:

In all cases this material has been filmed in the best possible way from the available copy. Problems encountered with this document have been identified here with a check mark √.

1. Glossy photographs or pages _____
2. Colored illustrations, paper or print _____
3. Photographs with dark background _____
4. Illustrations are poor copy _____
5. Pages with black marks, not original copy _____
6. Print shows through as there is text on both sides of page _____
7. Indistinct, broken or small print on several pages ✓
8. Print exceeds margin requirements _____
9. Tightly bound copy with print lost in spine _____
10. Computer printout pages with indistinct print _____
11. Page(s) _______ lacking when material received, and not available from school or author.
12. Page(s) _______ seem to be missing in numbering only as text follows.
13. Two pages numbered _______. Text follows.
14. Curling and wrinkled pages _____
15. Dissertation contains pages with print at a slant, filmed as received _______
16. Other ____________________________________________
   __________________________________________________
   __________________________________________________
   __________________________________________________
   __________________________________________________
   __________________________________________________

University Microfilms International
ADOLESCENT SUICIDE AND LIFE STRESS, PROBLEM SOLVING ABILITY, SUICIDE INTENT, AND HOPELESSNESS

A Dissertation

Submitted to the Graduate Faculty of the Louisiana State University and Agricultural and Mechanical College in partial fulfillment of the requirements for the degree of Doctor of Philosophy

in

The Department of Psychology

by

Sally Hill Stephenson
A.B., University of Georgia, 1968
M.A., Louisiana State University, 1981
December, 1985
Dedicated to
my father
Colonel Raymond Leslie Hill, M.S.
and my husband
The Reverend Randolph Robert Stephenson, M.Div.
Acknowledgements

This study of adolescent suicide was the result of efforts by many persons. The members of my dissertation committee have each helped me, not only in this study, but also throughout my graduate career. June Tuma, Ph.D., has been my advisor since the second year of my graduate studies, guiding me through both my master's thesis and this doctoral dissertation. She has smoothed the way through both of the oral defenses.

Billy Seay, Ph.D., has been my minor professor at LSU and has given a great deal of personal time to ensure a solid foundation in statistics and developmental psychology. Frank Gresham, Ph.D., has been my ready counselor for all the research I have pursued in the past five years. He alerted me to the important topic which is investigated in the present study. Raymond Buss, Ph.D., has taken an immeasurable amount of time in directing the statistics for this study; he has also been of invaluable assistance in proofing the manuscript as it has progressed.

Phillip J. Brantley, Ph.D., served as my mentor during my clinical training, guiding me through the darkest period of my life. Dr. Brantley is the most gifted therapist I have had the privilege to meet.

Suzanne Bronheim, Ph.D., became my supervisor at Georgetown Hospital and has always provided a calm, accomplished role model of a pediatric psychologist, as
well as a loving friend. Her husband, Benjamin Bronheim, M.D., has provided me with new areas of research and work, as well as his friendship.

Robert Shearin, M.D., has aided my acquisition of subjects for this study and, along with Phyllis Magrab, Ph.D., and Jay Greenberg, M.D., has afforded me the opportunity to ply my craft as a therapist. Lawrence Brain, M.D., and Jodie Smith, Ph.D., both at Psychiatric Institutes in the Washington D.C. area, allowed me to use those adolescent patients for whom I received permission as subjects for this research.

Sabrina Segal, an undergraduate student at Georgetown University, invested long hours in putting the data for this study into order; she also aided in the scoring of the evaluation measurements. Paige Lemoine, a graduate student in social work at LSU, did important proofing of the reference material in the manuscript.

My friends, Robin and Bruce London, not only gave much moral support along the way but also assisted in the final printing of the manuscript. Phillip Ross, Ph.D., ran the first computer analyses to verify my work on the four hypotheses; he also began the more sophisticated statistical analyses.

My mother, Gladys Hill, and my father, Raymond Hill, M.S., always insisted that I receive the best possible education and gave me financial and moral
support during the 27 years of my formal education. My sister, Mary Leslie Hill, M.S.W., has given me loving moral support along the way, offering to help in any way possible during my graduate education.

My children, Randolph Robert Stephenson, III, and Charlotte Leslie Stephenson, have given up a great deal of time with their mother so that I could pursue my studies. They have taken pride in my work, and both of them have done much to make life easier for the family.

The greatest assistance was given by my loving husband, The Reverend R. Robert Stephenson, M.Div.. He encouraged me to return to graduate school and has given me the support I needed throughout my graduate studies. He has painstakingly typed the manuscript for this study.
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dedication</td>
<td>ii</td>
</tr>
<tr>
<td>Acknowledgements</td>
<td>iii</td>
</tr>
<tr>
<td>Table of Contents</td>
<td>vi</td>
</tr>
<tr>
<td>List of Tables</td>
<td>ix</td>
</tr>
<tr>
<td>Abstract</td>
<td>x</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Difficulties with Prior Research</td>
<td>3</td>
</tr>
<tr>
<td>Demographic Variables</td>
<td>6</td>
</tr>
<tr>
<td>Socioeconomic status</td>
<td>6</td>
</tr>
<tr>
<td>Marital status</td>
<td>8</td>
</tr>
<tr>
<td>Employment</td>
<td>8</td>
</tr>
<tr>
<td>Age</td>
<td>9</td>
</tr>
<tr>
<td>Sex</td>
<td>10</td>
</tr>
<tr>
<td>Race and religion</td>
<td>11</td>
</tr>
<tr>
<td>Summary</td>
<td>12</td>
</tr>
<tr>
<td>The Problem of Adolescent Suicide</td>
<td>13</td>
</tr>
<tr>
<td>Repeat attempts</td>
<td>15</td>
</tr>
<tr>
<td>Etiology</td>
<td>16</td>
</tr>
<tr>
<td>Physical factors</td>
<td>16</td>
</tr>
<tr>
<td>Psychological factors</td>
<td>19</td>
</tr>
<tr>
<td>Depression</td>
<td>19</td>
</tr>
<tr>
<td>Hopelessness</td>
<td>21</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>22</td>
</tr>
<tr>
<td>Cognitions of death</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>vi</td>
</tr>
</tbody>
</table>
Appendix A: Two Factor Index of Social Position...87
Appendix B: Psychiatric Institute Consent Form....90
Appendix C: Georgetown University Consent Form...93
Appendix D: Life Experiences Survey.............96
Appendix E: Modified Life Experiences Survey....101
Appendix F: Hopelessness Scale..................105
Appendix G: Means-End Problem Solving Manual....107
Appendix H: Suicide Intent Scale...............110
Vita...............................................113
List of Tables

Table 1: Means and Standard Deviations of the three primary measures of suicide prediction .................. 53
Table 2: Life Experiences Scale ANOVA .............. 54
Table 3: Hopelessness Scale ANOVA ................... 55
Table 4: Means-End Problem Solving Procedure ANOVA ......................................................... 56
Table 5: Control Group Correlations .................. 58
Table 6: Suicide Group Correlations ................... 59
Abstract

Adolescent suicide is a serious problem, yet psychological investigations are limited to delineating effective treatment for suicide attempters. Consideration of those variables which lead to suicide should be included in any effective treatment protocol. The purpose of the present study is to evaluate the degree of life stress, hopelessness, and problem solving ability in adolescents who have attempted or gestured suicide.

Fifteen high school-aged adolescents who had attempted or gestured suicide and 15 high school-aged adolescents who were hospitalized for acute physical problems, were administered the Hopelessness Scale (Beck, Weissman, Lester, & Trexler, 1974), a modified version of the Life Experiences Survey (Sarason, Johnson & Siegel, 1978), and the Means-Ends Problem Solving Procedure (Platt, Spivack, & Bloom, 1971). Three separate ANOVAs were computed to compare the two groups on each of these three measures. A significant difference was found for the first two measures. Some effect was found for the third measure, but it was not large enough to be significant. To determine if severity of suicide intent covaries with degree of hopelessness, the Suicide Intent Scale (Beck, Schuyler, & Herman, 1974) was also given to the suicide group and this measure correlated with the results of the
Hopelessness Scale (Beck et al.). Although a positive correlation was obtained, it was not large enough to be significant because of a sample size limitation.

The implications of these results are considered in the discussion section. It is hypothesized that with timely identification and treatment of such predictors as negative future outlook (hopelessness) and negative cognitions concerning life experiences, the probability of a first or repeat suicide attempt by adolescents can be significantly reduced.
Suicide among adolescents has become epidemic. Long reported to be the second leading cause of death (accidents being number one) among adolescents (Crumley, 1979; Eisenberg, 1980; Holinger, 1977), suicide among adolescents still appears to be increasing in incidence (Cosand, Bourque, & Kraus, 1982; Harl, 1979). Sudak, Ford, and Rushforth (1984) note that the number of completed suicides in adolescents and young adults has increased two to three times in the past 25 years. The most recent official government figures on adolescent suicide from 1982 indicate that in that year 1,730 adolescents between the ages of 13 and 18 reportedly died as a result of suicide (National Center for Health Statistics, 1982). This represents 8.7 deaths by suicide per 100,000 adolescents.

While the number of known suicides among adolescents continues to be alarmingly high, the estimates do not begin to reflect the true incidence. It has been estimated that there are twice as many misclassified and unreported suicide deaths and attempts as compared with those that are reported (Boekelheide, 1978). If better methods of determining intentionality were known, a larger percentage of automobile fatalities, the most common cause of teenage death, would probably be classified as suicides (Mishara, 1975). Cosand et al. (1982) and Graham (1980) estimate
that fifty percent or more of the reported accidents (car accidents, for example) are probably unreported suicides. Other causes of death that are probable suicides would include gunshot wounds, poisonings, and drug overdoses. Further, there is a greater tendency to classify deaths in the younger age groups as accidents rather than suicides because it is difficult to accept the possibility of suicidal intentions in persons so young. It also happens that the ages of homicide and suicide victims are often unreported. These inadequacies in reporting data at the local level result in inaccurate numbers being reported at the federal level. A similar problem exists in the calculations of international statistics because individual countries use differing methods of determining the number of suicides each year.

Incidence of suicides in the United States and Canada has risen more than in other countries for 15-to-24-year-olds (Petzel & Cline, 1978). In part this is due to a decreasing tendency to cover up suicide in order to protect the family and, consequently, an increased readiness on the part of physicians to attribute suicide as a cause of death. These improved reporting procedures by physicians result in a more accurate picture of the actual suicide rate than was previously available; this contributes to the impression that adolescent suicide is rising at an alarming rate.
In spite of the fact that reporting inadequacies still exist, there is no question that suicide among adolescents is a problem of epidemic proportions and requires the serious attention of both researcher and practitioner alike.

Difficulties with Prior Research

Much of the suicide research prior to 1980 has been limited in scope and has had questionable reliability because of methodological inconsistencies, as well as other serious problems.

One of the methodological flaws of suicide research is that many studies have failed to include control groups (Petzel et al., 1978). Thus, much of the prior research can be criticized for failure to demonstrate that results can be attributed to the independent variable only (age, SES, etc). For example, when studying depression in suicide attempters, if a control group of subjects who have not attempted suicide is not included, there is no way of knowing whether the particular depressive variable is only present in suicide attempters.

Berman and Cohen-Sandler (1982) also pointed out methodological weaknesses in most of the suicide studies completed in the 1960s and 1970s. The absence of control groups in all but a few studies calls into question the conclusions of many of these studies during the 20 year period. Suicide causation could not be
inferred from these observations which lacked controls; only 10 studies were found to include a comparison (control) group. Research findings cannot be generalized if no comparisons are made between the data of experimental subjects and that of control groups.

In the 10 comparison group studies mentioned above, two of the studies failed to do a statistical analysis of the data available on at least two or more samples (Berman & Cohen-Sandler, 1982). Significant differences cannot be concluded when such statistical information is not included.

In addition to incomplete statistics and lack of control groups, operational definitions of suicide were included in only 2 of the 10 control group studies in the 1960s and 1970s (Berman & Cohen-Sandler, 1982). Some studies included only threats of self-harm as suicidal behavior while others included any self-destructive behavior. Without the use of clear operational definitions in individual research, no comparisons can be made between studies.

Another methodological flaw is related to the sampling problem in previous suicide studies. Both young and older subjects are mixed in many of the studies (Petzel et al., 1978). The number and causes of suicides are different for different age groups, as mentioned in a subsequent section of this paper on demographic variables. Different age groups have not
always been separated in the sampling of subjects and therefore it is difficult to obtain clear interpretations from results of these studies.

Kurtz and Moller (1982) found that there are also methodological shortcomings and problems in the outcome of experimental studies of suicide prevention. Only tentative conclusions can be drawn from the results of such studies.

Perhaps the best study of the problems in suicide research was done by Berman and Cohen-Sandler (1982). They discovered that about one third of the studies from 1960 to 1979 focused primarily on children who were fourteen years of age and younger. Because of the difficulty of doing research in an area where the subjects have died, they also found that only two data-based studies were done before 1980 concentrating on the characteristics of those who complete suicide. Perhaps this helps explain why contradictory and confusing statements have appeared in much of the literature dealing with child and adolescent suicide.

In summary, there have been significant methodological, analytical, and epistemological problems in much of the suicide research done prior to 1980: (a) Absence of control groups, (b) incomplete statistical data, (c) sampling problems, and (d) inconsistent or missing operational definitions characterize most of the studies, particularly those
completed during the 1960s and 1970s. These inadequacies must be kept in mind as future research seeks to utilize the findings of this period in an attempt to advance the scientific knowledge about suicidal behavior.

**Demographic Variables**

The demographic characteristics of the suicidal person have been studied extensively to determine if there exist some at-risk populations within our culture. Research has focused on variables of socioeconomic, marital, employment, age, sex, and racial status of persons committing or attempting to commit suicide. Using the data generated from these studies, a profile of high-risk adolescent subgroups can be developed.

**Socioeconomic status.**

Correlations have been sought between socioeconomic class and suicidal behavior with mixed results. Kosky (1983) observed that suicidal behavior did not correlate with any particular social class. However, he found that a number of demographic variables which have been isolated in suicidal adolescents are most often present in individuals in poverty level families. Similarly, in a Danish study, Bille-Brahe, Hansen, Kolmos, and Wang (1985) determined that suicidal adolescents were not solely from the lower social classes. Most of the suicidal adolescents in their study were from both upper and lower SES with a few from the middle SES. Stack
(1982) ascertained that persons in manual occupations had high rates of suicide. However, persons in manual occupations make up only a portion of the lower SES.

Miller (1975), like Kosky (1983), investigated a variety of social conditions present in the lives of suicide attempters in disadvantaged families. Among these conditions are (a) loss of a parent, (b) unemployment of the family breadwinner, (c) a disruption in the residence, (d) severe marital discord, (e) economic stress, (f) illness, and (g) abandonment by the father. The study found that when certain other conditions were combined with these social problems, the likelihood of suicide by the adolescent was increased. These other conditions include (a) absence of any loving parental figure, (b) lack of future plans or goals, (c) a history of suicides in the family, (d) low school involvement, (e) low impulse control, (f) active parental conflict, and (g) negative attitudes expressed toward the children by their parents. Miller reported that social and economic problems of the economically deprived, coupled with the particular problems which suicide attempters often experience, result in suicide. The economically deprived are often able to deal with their social problems, but when further personal problems are added to the social problems they can no longer cope.

Although the research indicates that suicidal
behavior is by no means limited to one social or economic group, it is clear that a number of the demographic variables found in suicidal persons are often present in families at the lower socioeconomic levels.

**Marital status.**

Single marital status is most often associated with suicide (Bille-Brahe et al., 1985; Goldney, 1981). There is, however, at least one study that offers conflicting data. In a study of outpatients treated for affective disorders, Golding and Fieve (1984) concluded that there was no difference in the marital status of attempters and nonattempters. However, most studies (e.g., Bille-Brahe et al., 1985; Goldney, 1981) find that the majority of suicide attempters are single. Goldney also found that the more lethal suicide attempts were carried out more often by unmarried persons.

**Employment**

Most suicidal persons have also been found to be unemployed. Bille-Brahe et al. (1985) determined that most of the suicide attempters studied had little association with the labor market. A German study (Muller, Schapowahl, & Seelander, 1984) also found that the vocational goals were fulfilled less often in German adolescent suicidal patients. Another German study (Kurz, Tohorst, Wachtler, & Moller, 1982) reported that repeat suicide attempters had unstable occupational
relationships.

Stack (1982) felt that the stress of unemployment was one explanation for the rise in adolescent suicides. Hawton, O'Grady, Osborn, and Cole (1982) also determined that one of the most common difficulties preceding suicide attempts (i.e., overdoses) in the adolescents they studied was unemployment. However, they also observed that if the adolescent's problems improved, there was less likelihood that the attempt would be repeated.

It is obvious from the results of the preceding studies that unemployment is an important variable when suicidal behavior is observed in persons of employable age.

**Age.**

Research concerning the relationship of age to suicide has been varied. One study (Angle, O'Brien, & McIntire, 1983) involved a nine year follow-up of adolescent suicide (i.e., self-poisoning) attempters ages twelve to eighteen. There was a significantly sharp decline in attempts after the subjects passed their eighteenth year. After 18, the subjects felt better adjusted, with greater life satisfaction and improved interpersonal relationships. The conclusion was that these persons had built multiple support systems into their lives by the time they reached 19, and this gave life new meaning.
Motives for suicide appear to change with age. Pasquali and Bucher (1981) observed that motives move from family difficulties to problems of a more social and professional nature as the person grows older. Children are more adversely affected by problems in the family because those are the relationships they most value. As persons mature and become more independent, relationships outside the family, as well as employment and career, become valuable.

There are conflicting results among studies comparing the rate of completed suicides in the young and in the elderly. Stack (1982) found that, in recent years, there had been a shift in the group with the highest rate of suicide, from the elderly to relatively young-aged persons. Other studies have shown that the number of completed suicides continues to increase with the increase in age of the population (Murphy, 1983; Wachtler, 1984), indicating that persons are more apt to complete suicide as they grow older.

Therefore, it is difficult to draw definitive conclusions concerning the relationship between age and the incidence of suicide. The problems in calculating suicidal incidence, mentioned in a previous section, increases this difficulty. It is apparent, however, that motives for suicide change with age.

Sex.

The research on sex indicates that females attempt
suicide more often (Adam, Lohrenz, Harper, & Streiner, 1982; Mehr, Zeltzer, & Robinson, 1981), but males are more often successful (Murphy, 1983; Stack, 1982). Thus, there are more suicide attempts by females; more suicides by males. These sex differences have been explained by findings that males use more lethal means than females (Cassorla, 1980; Pasquali & Bucher, 1981).

Cassorla (1980) found that males usually use violent methods for completing their suicide, and Hawton, O'Grady, Osborn, and Cole (1982) reported that most overdose patients were females. Thus, there appears to be a sex difference mainly in the methods used. By using more violent means, males would be more apt to complete their attempts. One frightening statistic shows that the number of adolescent males completing suicide doubled during the 1970s (Meares, Kraiuhin, & Benfield, 1983). All of the findings appear to support a conclusion that females attempt suicide more often, and males, because of the more violent methods used, complete suicide more often.

Race and religion.

The inclusion of race in suicide research has resulted in conflicting findings. Holinger (1979) reported that most youthful suicide victims are nonwhite. He found that nonwhite adolescents resort to suicide as a solution to their problems more frequently than white adolescents. Contrary to this research,
however, Stack (1982) found that whites commit suicide more often.

One hypothesis attempts to correlate the frequency of suicide completions by white males with religiosity. While females and blacks might feel more hopeless because of their chances for success in life, they are generally more religious and therefore less inclined to commit suicide (Kelly, 1980). Studies which have observed the relationship of religion to suicide have concluded that those who have religious commitment attempt suicide less often (Garfinkel, Froese, & Hood, 1982; Holinger, 1978; Kelly, 1980; Peck, 1968; Young, 1977). Religious beliefs tend to provide hope for a better future.

While the findings do not support a view that one race is more prone to commit suicide than another (black or white), it does appear to be the case that religion plays a role in deterring black males and white or black females from attempting suicide in many instances.

Summary.

In conclusion, when examining the incidence of suicide using demographic references, a profile of variables most often found in suicidal adolescents would include the following: either low or high socioeconomic status; single marital status; unemployed; females more often gesturing suicide; males (white) more often completing suicide; younger adolescents (with family
related problems); older adolescents (with social or vocational problems). This profile of high-risk adolescents, though by no means an attempt to eliminate other subgroups, can provide a point of reference for those seeking to identify potential candidates for a suicide attempt or gesture.

The Problem of Adolescent Suicide

Research concerning the increase in adolescent suicide has developed many hypotheses to explain this phenomenon. Ray and Johnson (1983) dispell the myth that adolescence is a trouble-free time of life. In fact, Harl and Keidel (1979) felt that during adolescence there is an increase in life stressors, and adolescents attempt to escape these stressors by using drugs, alcohol, and sex. With this increase in escape-seeking behavior comes a need for the ultimate escape, death through suicide.

In addition to the outside stressors, adolescents are in the most turbulent stage of their development. Feelings are intensified, and self-awareness is increased (Harl & Keidel, 1969). Fatke (1984) proposes that adolescence can be characterized as a period of "rites of passage". Jacobs (1971) hypothesizes that with the exaggeration of cognitions during adolescence there is a failure to adapt to the stressors brought on by life's crises. The adolescent overreacts to stimuli in the environment and accompanying thoughts become
exaggerated. Depression often results, and the adolescent isolates him/herself and slowly begins to contemplate suicide. Jacobs does not propose that it is an impulsive move; the isolated, egocentric, depressed adolescent thinks only of his/her own problems and exaggerates these problems to him/herself. She feels hopeless, and suicide seems to be the only answer.

Inhelder and Piaget (1958) spoke about the properties of the formal operational stage which is characteristic of most adolescents' thinking. In the formal operational stage the person feels that his or her fantasies about life are true. The egocentrism of this developmental period is characterized by the person's belief that the thoughts (fantasies) are real. The zeal of the college student in his/her enthusiasm over his/her ideals is a good example of this egocentrism. Hopelessness can result if others do not concur in these ideals. Glaser (1978) believed that, cognitively, adolescents might have unrealistically high ideals for themselves, which can often be inaccurate. The adolescent feels that others in the environment are opposed to him/her if they are critical.

Erikson (1959) described the ages 12 to 17 as the period of identity versus identity confusion. The sense of self forms during this period and there is a conflict when the adolescent attempts to create and define his/her personal identity. This conflict serves as a
further stressor in the adolescent's life.

Croake (1982) felt that adolescents who attempt suicide have an inability to meet life's tasks and lack confidence in their abilities. Their attempt is an extreme expression of anger in the form of revenge. A desire for notoriety and attention is coupled with the anger and suicide results.

Repeat attempts.

The repetition of suicidal behavior is of utmost concern when researching and treating suicide attempters. Of those who have attempted suicide, 10 to 20 percent will complete suicide in the future (Hawton et al., 1982; Johnston & Waddell, 1984; Murphy, 1983). The most crucial time is within the first one to two years after an attempt (Pierce, 1984; Rygnestad, 1982). During the days immediately following discharge from treatment, the suicide attempter is most at risk for another attempt (Roy, 1984). The depth of intent to die and the lethality (i.e., the irrevocable nature) of the attempt are the best determiners of future suicide attempts (Pallis, Gibbons, & Pierce, 1984).

Goldney (1981) found that with lethality in most attempts there is a high degree of suicidal intent. Kathol and Henn (1983) determined that even those attempters who were trying to manipulate significant others made medically serious attempts. However, Ennis (1983) found that in most people who harm themselves the
primary motivation is often something other than death (e.g., attention). These persons can harm themselves repeatedly with increasing lethality and sometimes die unintentionally.

**Etiology**

Many hypotheses have been proposed concerning the etiology of suicide. Various variables of the causes of suicidal behavior have been investigated. Physical and psychological problems, depression, hopelessness, low self-esteem, cognitions of death, drug and alcohol abuse have all been studied.

**Physical factors.**

Physical disorders have been hypothesized as contributing factors in suicide and different findings have resulted from the research. When people have expectations of poor future health they sometimes have suicide ideation (de Catanzaro, 1984). They usually perceive that they will be a burden to others and make a suicide attempt to avoid that probability.

The elderly often react with depression to the fear of contracting a physical disease (Wachtler, 1984). This fear and depression can lead to suicide. The depression is a result of the fear of illness rather than the presence of an actual physical disorder (Wachtler, 1982).

Suicidal adolescents, however, often have recurrent physical ill health (Garfinkel, Froese, & Hood, 1982;
Grollman, 1971; Hawton, O'Grady, Osborn, & Cole, 1982; Mehr, Zeltzer, & Robinson, 1982). In this case, the actual illness is the cause of depression in youth, not the fear of an illness as is the case with the elderly.

Asthma and hypertension are two disorders which have been found in many suicidal persons (Levitan, 1983). The disabilities of these two diseases can lead to despair and suicide. Seizure disorders have also been found in persons who have displayed self-assaultive behavior (Tardiff, 1981). The aggression present in some seizure disorders sometimes results in a particularly violent suicidal behavior.

Pregnancy, although not an illness, does cause physical changes in the body. There are conflicting findings as to whether or not pregnant women are more apt to attempt suicide. Eisenberg (1980) found that pregnant women are more inclined to attempt suicide. However, Petzel and Cline (1978) found that, although there was not significantly more suicide among pregnant women, there were more suicide attempts among women who were menstruating. Menstruation can bring about physical and emotional changes. Premenstrual Syndrome (PMS), with its characteristic symptoms of anxiety and depression, has recently been identified as a potential factor requiring further research into its affect on suicide.

Boekelheide (1978) found that diabetics sometimes
commit passive suicides by failing to take their insulin or by eating forbidden foods. This intentional lack of care on the part of the diabetic brings on insulin shock and loss of consciousness and, sometimes, death.

Therefore, the presence and even the anticipation of physical disorders in a person's life can be a contributing variable in suicidal behavior. Although different physical conditions may have differing effects on persons, the depression which results from those physical conditions appears to be a key factor in shaping suicidal intent.

It has also been suggested that physiologic changes may contribute directly to suicidal behavior. The relationship of the prenatal, birth, and neonatal care of infants to later adolescent suicide has been investigated (Salk, Lipsitt, Sturner, Reilly, & Levat, 1985). It has been determined that many infants at the time of birth suffered from respiratory distress for more than one hour and many of the mothers had no prenatal care prior to 20 weeks into the pregnancy. It was also found that many mothers of suicidal adolescents suffered from chronic diseases during their pregnancy. The hypothesis has been set forth by some that the mother's disease in some way insults the brain or other vital bodily part in the unborn infant, thereby introducing certain variables which later shape suicidal behavior.
Psychological factors.

Not surprisingly, psychological disorders have been found in the majority of suicide attempters and completers (Adam, Valentine, Scarr, & Streiner, 1983; Baker, 1984; Crumley, 1979; Garfinkel et al., 1982; Kononchuk, 1981; Murphy, 1983; Prasad & Lloyd, 1983; Santy, 1982; Small & Rosenbaum, 1984; Taylor & Stansfeld, 1984; Tishler & McKenny, 1983; Weiss & Ebert, 1983). Three of these studies compared suicide attempters to a group of controls (Adam et al., 1983; Taylor et al., 1984; Weiss et al., 1983). In each of these investigations the attempters had more psychological symptoms than persons in a control group.

Murphy (1983) determined that suicide without psychiatric illness is rare. Kononchuk (1981) hypothesized that psychological disorders were the reason that attempters could not settle the conflicts of life in other ways. Tishler et al. (1983) found that adolescents emit clear symptoms of psychological distress prior to attempting suicide which physicians should be able to detect. These symptoms include such depressive behaviors as withdrawal from interaction with others, excessive sleeping, and eating too little or too much.

Depression.

Depression is the psychological disorder most often investigated in suicide research. The results have
differed in these studies (Beck, Steer, Kovacs, & Garrison, 1985; Boekelheide, 1978; Borg & Stahl, 1982; Crumley, 1982; Gilead & Mulaik, 1983; Goldring et al., 1984; Hafner, Welz, Gorenc, & Kleff, 1983; Muller et al., 1984; Murphy, 1983; Murphy & Wetzel, 1982; Robbins & Alessi, 1985; Rosenthal & Rosenthal, 1984; Roy, 1984; Taylor & Stansfeld, 1984; Weisman, 1974; West & DiVasto, 1982).

Weisman (1974) estimates that 80 percent of suicide attempters are depressed. Boekelheide (1978) found that two thirds of depressed patients contemplate suicide. Fifteen percent of them complete suicide. Rockwell (1978) found that the length of the depression was important; those with chronic depression are more apt to commit suicide than those with acute depression.

Wachtler (1984 & 1982) discovered in his two studies that the elderly suicide attempters display depression more often than young attempters. Muller et al. (1984) found that suicide could be due to transient depression in the young. It was hypothesized that the developmental stage of adolescence can contain transient depressions. This depression may be due to the hormonal or other physiological changes.

Other research has shown that depression is not always correlated with suicidal behavior (Beck, Steer, Kovacs, & Garrison, 1985; Corsini & Messini, 1983; Peterson, Peterson, O'Shanick, & Swann, 1985; Yesavage,
1983). Beck et al. (1985) found that assessment of hopelessness was a better predictor of suicide than assessment of depression. Only one item on the Beck Depression Scale (Beck, Ward, Mendelsohn, Mock, & Erbaugh, 1961) predicted suicidal behavior, while a score of ten or more on the Hopelessness Scale (Beck, Weissman, Lester, & Trexler, 1974) was highly correlated with future suicidal behavior.

Peterson et al. (1985) determined that less than one third of the patients admitted for self-inflicted gun shot wounds were depressed. It is acknowledged that a portion of these patients wounded themselves accidentally, but the majority reflected suicidal behaviors. Yesavage (1983) found that anger and hostility with depression were a better correlate with suicide than depression alone. Corsini and Messini (1983) reported that in a small quantity of suicide attempters no depression was found.

Consequently, while depression is often present in persons exhibiting suicidal behavior, there is evidence to indicate that depression alone is not a sufficient indicator of suicidal tendencies; that additional precursors such as hopelessness, or hopelessness along with depression are better predictors.

Hopelessness.

The implication of hopelessness in the etiology of suicide was mentioned in the discussion of depression.
The most recent suicide research has specified that hopelessness is a better indicator of suicide than depression (Beck et al., 1985; Dyer & Kreitman, 1984; Minkoff, Bergman, Beck & Beck, 1973). Minkoff et al. (1973) found that the amount of suicide intent was more highly correlated with hopelessness than depression.

Beck et al. (1985) conducted a longitudinal study of suicide ideators. High hopelessness scores correctly identified 91% of eventual suicides. When hopelessness was controlled, depression was not significantly related to suicide intent.

Higher hopelessness scores were found for suicide attempters than for nonattempts as well (Goldney, 1981; Topol & Reznikoff, 1982). Further, Dyer and Kreitman (1984) demonstrated that the relationship between depression and suicide intent is dependent on the relationship between hopelessness and suicide intent. Hopelessness, thus, appears to be a potent predictor of suicidal behavior.

**Self-esteem.**

Low self-esteem is an attribute of suicide attempters along with cognitions of hopelessness. Suicide attempters often have feelings of being of little worth and are self-critical and harsh when describing themselves in their suicide notes (Leenaars & Balance, 1984). Lutz (1982) also found that adolescent suicide attempters expressed cognitions of worthlessness
when describing themselves to hospital staff.

Topol & Reznikoff (1982) determined that suicide attempters are characterized by external locus of control significantly more often than nonattempters. Suicide attempters have the cognition that others determine their future and that they have little control over what happens to them.

Evidence also points to a relationship between child abuse, low self-esteem, and suicide attempts. Many battered children exhibit self-destructive behavior (Green, 1978). The incidence of self-destructive behavior and suicide is significantly higher in abused than nonabused children. These children appear to use suicide as a problem solution when the consequential feelings of low self-esteem brought on by abuse at an early age are present.

Grob, Klein, and Eisen (1983) suggested that low self-esteem is a risk factor in high school-aged youth, and school staff persons should be attentive to this. Suicide ideations could be present in those students with low self-esteem.

Cognitions of death.

Ideations of death can be observed in persons where cognitions of hopelessness and low self esteem are present. Lester (1967) found that suicidal adolescents feared death less than those who were not suicidal (or less suicidal). This was also shown in the research by

White (1979) found that any adolescent's cognitions can occasionally center on death. Adolescents sometimes fantasize and have a naive fascination about death. They are inconsistent or ambivalent in their feelings about death. When they are highly stressed, this ambivalence and fascination with death can result in the choosing of death as a solution to their problems.

**Drug and alcohol abuse.**

Drug and alcohol abuse have been implicated in suicide behavior by many researchers (Borg & Stahl, 1982; Crumley, 1979; Garfinkel, et al., 1982; Garvey & Tollefson, 1982; Kendall, 1983; Kurz et al., 1982; Martin, Cloninger, & Guze, 1985; McKenry, Tishler, & Kelley, 1980; Miller, 1981; Murphy, 1983; Peterson et al., 1985; Robbins & Alessi, 1985). High suicide rates have been found in alcoholics and drug abusers (Borg & Stahl, 1982; Garfinkel et al., 1982; Kendall, 1983; McKenry et al., 1983). Miller (1981) reported that drug abuse complicates adjustment during adolescence and leaves young people vulnerable to suicide.

Hopelessness and depression have been common diagnoses with substance abuse (Crumley, 1979; Garvey & Tollefson, 1982; Martin et al., 1985; Murphy, 1983; Robbins & Alessi, 1985). In addition, Martin et al.
(1985) found that depression occurring with alcohol misuse is highly predictive of future depression and suicide attempts. Further, Murphy (1983) determined that alcoholism is the second largest contributor to lifetime risk of suicide. Alcoholics who have experienced the loss of a close personal relationships are in particular danger.

**Stressors**

Different types of stress affect the lives of adolescents and the inability to effectively handle these stressors can result in suicide (Ferguson, 1981; Harl & Keidel, 1979; Rydelius, 1984). Rydelius investigated the psychosocial stressors in the lives of Swedish children and found a relationship between these stress factors and suicide. Ferguson (1981) also found a significant positive correlation between life stress and suicide ideation in American youths.

**School problems.**

Difficulty with school work is a factor which has been implicated in adolescent suicide (Bardos, Fordos, & Stogmann, 1982; Biener & Roschkeski, 1981; Duncan, 1977; Eisenberg, 1980; Ishii, 1981; Kenny, Rohn, Sarles, Reynolds, & Heald, 1979; Peck, 1968). School is one of the major areas of an adolescent's life and can easily add negative stress to that life.

Some of the studies relating suicide and academic problems have come from outside the United States. In a
study of Austrian youths, Bardos et al. (1982) found that family problems led to school problems which led to further family problems. The child has difficulty concentrating on her/his work in school because of concern over family problems. The resulting lapse in attention in the classroom results in poor grades which, in turn, leads to further arguments within the family. In a Japanese study, Ishii (1981) ascertained that the competition in higher education frequently contributed to higher suicide rates. Japanese schools are highly competitive and it is difficult to gain admission to institutions of higher education. The resulting stress of this competition has sometimes lead to suicide.

Kenny et al. (1979), in an American study, concluded that learning disabilities increase the risk of suicide. For example, the problem solving ability of a person can be affected by learning disabilities, making suicide a viable solution. Someone without problem solving deficits might not be inclined to choose suicide as a response. The verbal skills needed to communicate problems to significant others can also be affected by learning disabilities. Some people with learning disabilities have difficulty communicating verbally and they are unable to express the fact that they are having problems. The pressure to perform school work adequately is an added stressor for one with a learning disability; this can lead to depression and
feelings of hopeless which may end in suicide.

**Family problems.**

Many adolescents attempt suicide as a result of family problems (Adam, Bouckoms, & Streiner, 1982; Adam, Lohrenz, Harper, & Streiner, 1982; Bardos et al., 1982; Friedman & Corn, 1985; Friedman, Corn, Hurt, Fibel, Schulick, & Swirsky, 1984; Garfinkel et al., 1982; Gehlot & Nathawat, 1983; Grob et al., 1983; Kitamura, 1982; Kosky, 1982; Kurz et al., 1982; Mckenry, Tishler, & Kelley, 1982; Mehr et al., 1981; Pfeffer, 1982; Pfeffer & Plutchik, 1982; Pfeffer, Plutchik, & Mizruchi, 1983; Rosenthal & Rosenthal, 1984; Ross, Clayer, & Campbell, 1983; Roy, 1983; Roy, 1984; Rubinstein, 1983; Taylor & Stansfeld, 1984; Topol & Reznikoff, 1982; Wachtler, 1984; Wenz, 1982). Family interaction deficits are the stressors most often researched in suicide studies. Many variables which are a part of family problems have been investigated.

Several control studies have demonstrated that the families of persons who have attempted suicide have psychiatric disorders (Friedman et al., 1984; Garfinkel et al., 1982; Mckenry, Tishler, & Kelley, 1982; Pfeffer & Plutchik, 1982; Topol & Reznikoff, 1982). Most often the parents have been diagnosed as having psychological problems. The stress of living in a family in which mental illness exists can result in a suicide attempt by the child. Psychiatric disorders can also be inherited,
or the parent can model such behavior for the child; in either case the diagnosis of psychiatric problems may adversely influence the child.

Conflicts and difficulties in interactions between the generations has been shown to be another family stress factor (Bardos et al., 1982; Biener & Roschkeski, 1981; Petzel & Riddle, 1981; Rubenstein, 1983; Taylor & Stansfeld, 1984). The inability on the part of some young persons to discuss problems with their parents can result in suicide. Adolescents need support and encouragement in talking about the pressures and stresses in their lives. They also require opportunities to resolve conflicts between themselves and their parents or other caregivers. When these supports and opportunities are lacking, the resulting accumulation of stress can trigger a suicide attempt.

The loss of a parent is another contributing factor in adolescent suicide (Adam et al., 1982; Cantor, 1972; Kurz et al., 1982; Roy, 1984; Wachtler, 1984). The depression which results from the loss of a loved one can end in suicide. The adolescent can also have a death bond with the dead parent (Rosenkrantz, 1978). The normal bonds could bring about a desire to join the dead parent. The parental loss can also be due either to separation or divorce with the same results. Developmentally there is a need for the support of both parents.
An additional reason given for the rise in adolescent suicide is the breakdown of the nuclear family (Ishii, 1981; Miller, 1981). With the rise in the rate of divorce, the increased mobility of families, and the growth of the female work population, the nuclear family is not as intact as in the past. Adolescents have lost many of the supports from significant others that they once enjoyed.

Finally, child abuse is an important family stressor when looking at the causes of adolescent suicide (Kosky, 1982; Pfeffer et al., 1983; Rosenthal & Rosenthal, 1984; Ross et al., 1983). The abused child loses her/his self-esteem. S/he comes to expect abuse from others, and s/he abuses her/himself as well, sometimes with fatal consequences.

Modeling suicide behavior.

Persons who attempt suicide often have lost a significant other and are under a great deal of stress over that loss. The stress is particularly great if the significant other has committed suicide. Some adolescents even observe that suicidal behavior by their significant others is reinforced behavior. This then becomes a learned behavior (Garfinkel et al., 1982; Mckenry et al., 1982; Pfeffer, 1985; Pfeffer et al., 1983; Robbins & Conroy, 1983; Roy, 1983). Adolescents tend to copy the suicidal behavior observed in their friends and peers (Robbins & Conroy, 1983). Cluster
suicides or groups of suicides are the result. These types of suicides are also increasing in frequency. In addition, Roy (1983) found that there is a significant risk for adolescents who are in a family which has a history of suicide. Pfeffer (1985) found that the children of parents who have attempted suicide identify with their parents and tend to recreate this suicidal behavior.

Living alone.

Living alone is another stressor which can contribute to suicidal behavior (Haenel, 1983; Roy, 1984; Small & Rosenbaum, 1984; Wachtler, 1982). Roy (1984) found that those who live alone exhibit suicidal behavior significantly more often. Small and Rosenbaum (1984) and Haenel (1983) observed that those who live alone are socially isolated and become lonely and depressed. However, Wachtler (1982) discovered that, for the elderly who have attempted suicide, social isolation was more rarely present than expected. Nevertheless, this group did complain of personal loneliness. The suicidal behavior could be seen as a manipulative ploy to gain the attention of significant others.

Social skills.

Having social skills deficits is another stressor in the life of an adolescent which can contribute to suicidal behavior (Adam, Valentine, Scarr, & Streiner,
1983; Biener & Roschkeski, 1981; Cassorla, 1980; de Catanzaro, 1984; Kitamura, 1982; Lutz, 1982; Miller, 1981; Petzel & Riddle, 1981; Topol & Reznikoff, 1982; Wenz, 1982; Zich, 1984). These teenagers have difficulty relating to their peers and, as such, don't have peers with whom to discuss their problems. Communication with authority figures is also hampered (Corsini & Messini, 1981). These youths isolate themselves and feel that the future for them is hopeless (Wenz, 1982).

The inability to learn to love others, stemming from inadequate intrafamilial relations, is often hypothesized as the etiology of social skills deficits (Cassorla, 1980). Many normal personality functions are hindered by these deficits.

Immigrants have a similar problem. When they come to a new country, they have difficulty in learning to interact in a new culture and; as a result, occasionally attempt suicide (Alley, 1982; Burke, 1982; Jack, Nicassia, & West, 1984; Stack, 1982). The separation from significant others is part of the etiology of these suicides. However, the inability to make new friends and create new support systems is also a factor.

Summary.

It has been demonstrated that there are many sources for stress in the life of the adolescent and that the inability to deal effectively with these
stressors can often result in suicide. Problem solving ability plays an important part in determining what effects the different kinds of stress will have on the adolescent. This is discussed in greater detail in the next section.

**Problem Solving Ability**

When stresses such as those mentioned in the previous section are present in the life of the adolescent, s/he must somehow be able to solve the resulting problems which arise. As D'zurilla and Goldfried (1971) have pointed out, a big part of adapting in life is being able to solve problems effectively. They also view abnormal behavior in terms of a deficiency in problem solving skills.

A situation is considered problematic if there is no effective response alternative immediately available (Davis, 1966). The solution can involve either an overt or cognitive process which produces a number of potentially effective response alternatives and increases the chances that the most effective response will be found (Gagne', 1959).

D'zurilla and Goldfried (1971) found five basic operations reported in the majority of studies on problem solving:

1. The first stage includes a person's general orientation, set, or attitude toward approaching a life situation. The approach to problem situations is of
importance because one must accept the fact that there are difficulties in everyone's life and these difficulties must not be ignored or avoided when they are present. Miller, Galanter, and Pribram (1960) confirmed that the presence of a problem must be acknowledged. Any tendency to respond impulsively or a failure to respond should be inhibited (Bloom & Broder, 1950; Dollard & Miller, 1950). The individual will be more successful if s/he believes that s/he can solve her/his problems or can cope with those problems. The ability to control one's environment has been shown in the psychotherapy research to be of value in solving problems (Frank, 1961; Goldstein, 1962). Expectations of positive behavior change can facilitate therapy.

2. At the second stage, the problem is defined and formulated after being recognized. All aspects of the problem must be operationally defined so that the details of the problem do not remain vague. If further information is needed, that fact must also be determined (Osborn, 1963; Parnes, 1967). The problem elements must be formulated and classified in this stage. This is done to separate relevant and irrelevant information. The individual can then relate the problem to other problems s/he may have dealt with in the past (Mowrer, 1960). S/he is also able to determine what responses might prove to be a solution to the present problem (Skinner, 1953).
3. The third stage involves generating possible solutions to the problem. Osborn (1963) uses "brainstorming" to facilitate the production of effective solutions. The group is asked for as many ideas as possible with the understanding that no one's ideas will be criticized. Maier (1960) stresses the need for instructions requesting that these solutions be stated in terms of specific actions. This facilitates further formulation or classification of solutions.

4. In the fourth stage, decisions are made as to which solutions will be most effective and realistic. This decision-making skill must be taught (Miller et al., 1960). In behavior modification, deciding which solutions will work is most important. The consequences of each action must also be explored as part of the process (Simon, 1957). These estimations of probable consequences are based on past experiences.

5. In the final stage, after a decision about an action has been made, that course of action is carried out and the assessment of the actual outcome is made in order to make self-correction possible. This facilitates future problem solving ability as well as ensuring a successful solution to the existing problem. After the present problem is solved, a new set of information concerning possible solutions for future reference is made available.

These techniques can be used to assess individual
cases before psychotherapy is begun (Bandura, 1969). The assessment should be repeated to insure that a correct treatment is being given. The client also receives instructions in problem solving from the beginning of treatment to increase her/his chances of successfully overcoming his problems.

Using suicide as a problem solution has been discussed by many suicide researchers (Clum, Patsiokas, & Luscomb, 1979; Hynes, 1976; Levinson & Neuringer, 1970; Neuringer, 1976; Patsiokas, Clum, & Luscomb, 1979; Schotte & Clum, 1982; Williams and Lyons, 1976). Williams and Lyons hypothesized that suicide is attempted by adolescents who have impaired problem solving abilities. Rather than use a more adaptive way to solve their problems, these adolescents use suicide. Suicide is used to solve their problems so that they might escape a dismal future (Hynes, 1976).

Levinson and Neuringer (1970) found that suicidal adolescents have greater cognitive rigidity in problem solving than even psychologically disturbed nonsuicidal adolescents. Cognitive rigidity is denoted by an inability to find alternate solutions to problems. Neuringer added that the value systems of suicidal adolescents were more polarized. Once a certain problem solution occurs to them, they had difficulty changing their minds.

Neuringer (1974) also found that this inability to
solve problems effectively led to feelings of hopelessness. As previously discussed, these feelings of hopelessness contribute to the risk of suicide (Boekelheide, 1978; Crumley, 1979; Grollman, 1971; Harl & Keidal, 1979; Headlam, 1979; Kenny et al., 1979; Miller, 1975; Rockwell, 1978; Weight, 1979; Weisman, 1974). Therefore, stressors in the lives of these individuals interact with poor problem solving abilities and this often results in suicide attempts (Clum et al., 1979).

General problem solving in suicide attempters, as demonstrated by the Alternate Uses Test, was tested by Patsiokas (1979). Suicide attempters were found to score more often in the cognitively rigid direction. Schotte and Clum (1982) further investigated this area by evaluating the problem solving skills of college-aged suicide ideators. Life stress, cognitive rigidity (both general problem solving and interpersonal problem solving), and hopelessness were investigated in suicide ideators and nonideators. They found that high suicide intenders had more negative life stresses, were more depressed, and felt more hopeless. They also found that stress interacted with both the amount of depression and the level of hopelessness and was significantly different between high ideators and non-ideators. Those highest in suicide intent were the poor problem solvers; they also had the most negative life stress. It was
also found that poor problem solvers felt most hopeless. Schotte and Clum concluded that problem solving deficits could play a part in the development of suicide ideation.

Poor problem solvers feel more hopeless when negative life stressors are present, and this results in suicide ideation. Poor problem solvers under high negative stress, or those who felt the most hopelessness, had higher suicide intent than good and poor problem solvers under low stress (or who felt little hopelessness) and good problem solvers under high stress who felt more hopeless.

Schotte and Clum (1982) feel that there is a need for research to investigate the nature of the problem solving deficits in suicidal individuals. This research is needed for the development of effective treatment of these people. Teaching a suicidal individual to be able to solve problems in his/her life may be an effective alternative to suicide.

Impulsivity is another factor which affects the problem solving ability of adolescents. The adolescent suicide attempter often acts impulsively. While s/he might have had suicidal thoughts previously, the act is often done on impulse. Steele (1977) has found that there is, on the average, an hour or less of deliberation before the attempt. Suicide is sometimes a response to only one stressor.
Crumley determined in two studies (1979, 1981) that impulsive adolescents are unable to control their anger. The young persons either become angry with themselves and harm themselves or they attempt to hurt the feelings of others through their acts of self-harm.

Peterson et al. (1985) hypothesized that depression is not always the cause of adolescent suicides because of the fact that it can be such an impulsive act. The child does not have to feel depressed in order to believe that an act of self-harm will solve her/his particular problems. Baker (1984), in researching the impulsivity of adolescents who attempt suicide, found that, when impulsivity was connected with easy accessibility to medications, there could be dangerous results. Adolescents who impetuously decide to harm themselves often use medications that are most convenient.

In summary, the research clearly shows that problem solving ability is important in determining whether or not an adolescent will employ suicide as a response to the stressors in her/his life.

Statement of the Research Problem

The prevalence of adolescent suicide has been demonstrated in state and federal statistics. Suicide is second only to accidents as the cause of death of adolescents and many deaths ruled as accidents are actually suicides. Along with these alarming statistics
is the number of repeated suicide attempts. Effective treatment for suicide attempters must therefore be found. The variables which lead to suicide have been studied and many have been isolated. Consideration of these variables should be included in any effective treatment protocol.

The demographic variables of sex (more males commit suicide while more females attempt and gesture suicide), lack of religious affiliation, and race (different studies show different results) have been observed to influence suicide. Psychological variables, including a history of psychological problems, impulsivity, alcohol and drug abuse, prior suicide attempts, family communication problems, family member suicides, rejection by significant others, and abuse or neglect by the family have been observed to influence suicide. In addition, academic problems, hopelessness or depression, developmental stage, and problem solving ability, are psychological variables which have been shown to be related to suicide. The variables of physical illnesses, menstruation, and pregnancy have also been found to be related to suicide. All of these variables should be taken into account in the treatment of a suicidal individual.

However, there are three variables, in particular, which have been shown to be highly predictive of suicide potential. These variables are easily screened and
could lead to shorter term effective treatment. These variables are high life stress, poor problem solving skills, and a high degree of hopelessness. This set of variables, thus, is particularly important in the present study.

The implication of problem solving ability in suicide intent in college students has recently been reported (Schotte & Clum, 1982) and may have relevance to adolescent suicidal patients. Studying college students with high or no suicide intent, Schotte and Clum (1982) found that poor problem solvers under high stress had higher suicide intent. They also found that individuals who demonstrate hopelessness and who are poor problem solvers are high in suicide intent. The researchers hypothesized that negative life stress, along with poor problem solving ability, lead to feelings of hopelessness which results in suicide ideation. Hopelessness has been found to be a better predictor of suicide than depression (Beck et al., 1985; Beck et al., 1974) and highly correlated with suicide intent (Minkoff et al., 1973).

Although Schotte and Clum's study may contribute to a better understanding and more effective treatment of adolescent suicide, there are some limitations of generalizability. First, the study has not been done with those whose suicide intent has actually led to a suicide attempt, nor has it been conducted using
adolescents as subjects. The present study is designed to evaluate indications of hopelessness, negative life stress, and poor problem solving ability in adolescents who have attempted or gestured suicide.

Four hypotheses were investigated.

**Hypothesis I.** Adolescent suicide attempters or gesturers will have been under higher negative life stress than adolescents who have not attempted or gestured suicide.

**Hypothesis II.** Adolescent suicide attempters or gesturers will demonstrate more hopelessness than adolescents who have not attempted or gestured suicide.

**Hypothesis III.** Adolescent suicide attempters or gesturers will demonstrate poorer problem solving abilities than adolescents who have not attempted or gestured suicide.

**Hypothesis IV.** The severity of suicide intent in adolescents who have attempted or gestured suicide will covary with the severity of hopelessness.
Method

Subjects

The 30 subjects ranged in ages from 14 to 17 (M age = 15) (15 males; 15 females); all subjects were in high school. The control group and the suicide group were matched on socioeconomic status (SES) on the basis of the Two Factor Index of Social Position (Hollingshead, 1957) (see Appendix A). Subjects in both groups were found to be in the middle and high social position groups which can be attributed to the reliance on private hospitals for the subject pool. After consulting with attending physicians, permission was obtained from parents and adolescents for the testing.

The 15 adolescents (8 males; 7 females) in the suicide group were referred from inpatient private psychiatric institutions in the Washington, D.C. area. Each subject had been admitted after performing an act of self-harm. No self-report of suicide was required for placement in the group. Attending physicians decided when each subject was physically and emotionally able to answer questions for the evaluation. The testing was conducted as soon as possible after admission. This time ranged from one week to two months; the average period was one month after the attempt or gesture. The consent form (see Appendix B), prepared by the psychiatric institutions, were signed by each of the suicide subjects and a parent at a
prearranged meeting.

The 15 adolescents (7 males; 8 females) in the control group were referred by the Georgetown University Hospital staff. These adolescents were general pediatric inpatients at the time of evaluation, hospitalized for corrective surgery or treatment of nonterminal disorders requiring short-term hospitalization. They had never attempted or gestured suicide. Patients with diabetes or anorexia nervosa were excluded from participation because of the possibility of an attempted or gestured passive suicide. Likewise, adolescents who had been diagnosed as terminally ill were excluded. The control subjects were matched to the suicide subjects by social position and age. The adolescents and one parent signed a hospital-prepared consent form (see Appendix C) prior to testing.

Measures

**Modified Version of the Life Experiences Survey (LES)** (see Appendix D).

The LES (Sarason, Johnson, & Siegel, 1978) is a 64 item measure of life stress. The respondent indicates the occurrence of any of 57 experiences (three additional spaces are provided for writing in other events which have been experienced) in the past six months to one year. Respondents are also asked to rate the importance of each of these events on a
seven-point-anchored scale ranging from -3 to +3 (i.e., very negative to very positive). Ten of these items pertain specifically to college students. Summary scores are compiled for negative, positive, and total life stress for the previous six months to one year. This survey was normed using college students. Many of the items included are normally appropriate for adults only (e.g., death of spouse, foreclosure on mortgage or loan).

The LES has test-retest reliabilities between .53 and .88 for positive, negative, and total life changes ($p < .001$) (Sarason et al., 1978). The addition of new life changes during the interval between the testings was given as the reason for the low correlations.

The validity of the survey was tested by concurrent validity (Sarason et al., 1978). The LES was correlated with relevant personality indices to measure life stress. The State-Trait Anxiety Inventory (Spielberger, Gorsuch, & Lushene, 1970) and a short form of the Marlowe-Crowne Social Desirability Scale (Strahan & Gerbasi, 1972) were used. There was a significant positive correlation between total and negative change scores and state and trait anxiety, whereas the positive change score was not significantly related to either measure. The relationship between life change scores and the social desirability measure was not significant. The researchers felt that responses to the LES were,
thus, relatively free from the influence of social desirability response bias. Negative life change scores and depression were also found to correlate significantly with the LES.

Using counseling center clients and a randomly selected group of college student, no significant differences were obtained in the positive and total change scores (Sarason et al., 1978). However, the counseling center clients did display significantly higher negative change scores than the comparison group.

The LES was also compared to the Schedule of Recent Experiences (SRE) (Holmes & Rahe, 1967). In this popular life stress assessment survey, all life changes are assumed to be stressful. The Beck Depression Inventory and the State-Trait Anxiety Inventory were given to a group of college students along with the SRE and the LES. The LES negative change score was more predictive of depression and anxiety than the other indices (Sarason et al., 1978).

There are no standardized indices that assess negative, positive, and total life stress for young adolescents. Therefore, a modified version of this instrument was constructed to remove those items that do not reflect the variables found in the lives of suicidal adolescents (see Appendices D & E for copies of the original and modified versions of the LES). A test-retest reliability index was obtained for the
modified LES. The coefficient is reported in the results section. A measure of construct validity is also included.

_Hopelessness Scale (HS) (see Appendix F)._ 

Beck et al. (1974) designed a 20 item, true-false scale as a measure of the cognitions dominated by negative expectations of the future. One-half of the items are reverse scored and total scores can range from 0 to 20. Internal consistency of the scale was analyzed by means of a coefficient alpha (KR-20), which yielded a reliability coefficient of .93 (Beck et al., 1974). Concurrent validity was determined by comparing HS scores with clinical ratings of hopelessness and with other tests designed to measure negative attitudes about the future. A correlation with the clinical ratings of hopelessness in a general practice sample was .74. The HS was also correlated, \( r = .60, p < .001 \), with the _Stuart Future Test_ (Stuart, 1962).

The construct validity of the scale was assessed by testing various hypotheses relevant to the construct under investigation. In several studies of these hypotheses, positive results were obtained regarding the relationship between unrealistic negative attitude toward the future and depression (Vantz et al., 1969) and the seriousness of suicidal intent (Minkoff et al., 1973; Schotte & Clum, 1982).
Means-End Problem-Solving Procedure (MEPS)
(see Appendix G).

This interpersonal problem solving task includes 10 situations in which the need and desired outcome are presented for each situation (Platt, Spivak, & Bloom, 1971). The subject is requested to provide the middle portion of the story that indicates how the main character achieves the presented outcome. The stories can be scored on the number of relevant means, irrelevant means, and absence-of-means for solving the problem. A relevancy ratio (the number of relevant means divided by the sum of the number of relevant means, irrelevant means, and the number of no means) can also be obtained.

The construct validity of the MEPS was assessed by determining whether the quality of means-end thinking was different for different groups. The scores on the procedure have differentiated adult psychiatric patients from nonpatients (Platt & Spivack, 1972; Platt & Spivack, 1973) and adolescent psychiatric patients from nonpatients (Platt, Spivack, Altman, Altman, & Feizer, 1974). Also, within a group of male psychiatric patients, poor MEPS scorers in contrast to high MEPS scorers were found to be more socially inadequate and emotionally indifferent as reflected in higher Pd, Sc, and Si scale scores on the MMPI (Platt & Siegal, 1974).

In all of these studies and others, those individuals
who have adapted less well in life have been shown to be
deficient in problem solving as measured by the MEPS.
They have failed to solve the problems of life and are
also deficient in the means of solving those problems.

The construct validity of the MEPS was assessed by
performing a factor analysis using the instrument (Platt
et al., 1971). Only one factor emerged, suggesting that
all the stories measure the same quality of thinking.

The predictive validity of the instrument was
evaluated by administering the MEPS to youthful heroin
addicts who were incarcerated at the time of evaluation
(Platt et al., 1971). A Pearson correlation coefficient
of .30 was found between the number of means and the
length of time (in days) on parole before re-arrest
(p < .05).

The concurrent validity of the MEPS was assessed by
having a group of heroin addicts pick seven of those
amongst them who were best at resolving problems between
people, and seven who were least effective in resolving
problems (Platt et al., 1971). These two groups were
then compared on their MEPS scores. There was a
significant difference in MEPS scores between those
chosen for the two groups.

The reliability of the MEPS was assessed with the
test-retest method using three different groups and
three different amounts of time (Platt et al., 1971).
The coefficients ranged between .43 and .64 (p < .05).
The coefficients were smaller with longer intervals of time.

When the Kuder-Richardson 20 was used to assess internal consistency, reliability coefficients of .80 and .82 were found (Platt et al., 1971). A split-half, odd-even reliability coefficient using the Spearman-Brown formula was also found. This resulted in coefficients of .82 and .84.

Because the MEPS scoring is subjective, interrater agreement for this study was assessed using two raters. These raters were not aware of the subjects' status as suicide or control group members. A correlation of .65 \( (p < .01) \) was found.

**Suicide Intent Scale (SIS)** (see Appendix H).

The SIS (Beck et al., 1974) is a twenty item measure of suicide intent. Five of the items are not scored. Subjects indicate the occurrence of various behaviors at the time of the suicide attempt. They fill out each scale themselves as the examiner reads the items.

Internal consistency was measured using an odd-even, split-half method which yielded a coefficient of .70. A Spearman-Brown coefficient of .82 was also found (Beck et al., 1974). An interrater reliability of .95 was also obtained.

Construct validity was determined by predicting the ability to obtain higher suicide intent scores from the
behaviors preceding fatal suicide attempts than those accompanying nonfatal attempts (Beck et al., 1974), \( t = 5.45, p < .0005 \). Correlations were also performed between scores on depression inventories and the intent scale; a coefficient of .26 was found. A coefficient of .47 was found between the intent scale and a hopelessness inventory. This follows similar findings of Beck (1985) that hopelessness is a better indicator of suicide than depression.

**Procedure**

After obtaining informed consent from the subjects and their parents, each member of the control and suicide groups was individually given the MEPS, HS, and modified LES. The modified LES was administered twice, with a one week time interval. In addition, the suicide group was given the SIS. The MEPS and HS were given separately (with either the first or second administration of the LES). The choice of which instrument to give with each administration of the modified LES was done randomly. With the adolescent's permission, the parents and attending physician were given the results of the testing.
Results

Preliminary Results

The interrater reliability assessment for the MEPS scoring was determined by correlating the scoring results of two independent scorers. A correlation coefficient of \( .65, p < .01 \) was found.

Preliminary data analyses were conducted to determine the reliability and validity for the modified LES. The reliability was assessed by the test-retest method. There was a one week interval between the administration of the two tests. A correlation coefficient of \( .998, p < .001 \) was obtained.

The construct validity of the modified LES was assessed by measuring the hypothesis relevant to the construct of life stress, as was affirmed in the review of the literature. The hypothesis states that patients who have been under a great deal of negative life stress feel more hopeless. This was tested by correlating the subjects' scores on the HS with their life stress scores. Because high negative life stress would produce a negative score, a negative correlation was desired between these two indices. A correlation coefficient of \( -.552, p < .01 \) was found.

Principal Results

The three primary dependent measures from this study, the modified LES, HS, and MEPS, were analyzed by using a MANOVA. The results from this analysis were
significant, multivariate $F(3, 26) = 8.64, p < .0004$. The means and standard deviations of the three measures are presented in Table 1. Individual follow-up ANOVAs were performed for the three dependent measures. Each of these tests was done at the $F = .017$ level (i.e., split .05 equally among the three tests). The $F$s obtained for the first two variables, modified LES and HS, were, $F(1, 28) = 18.35, p < .0002$; and $F(1, 28) = 12.47, p < .0015$, respectively. However, the $F$ test for MEPS was not significant when using this conservative procedure, $F(1, 28) = 5.24, p < .0298$. Individual ANOVA tables are presented in Tables 2, 3, and 4.

In addition, a step-wise discriminant analysis was performed to follow up the MANOVA. The two significant variables from the follow-up ANOVAs were included in the analysis. At step 1, modified LES entered the equation, $F(1, 28) = 18.35, p < .0002$. At step 2, HS was entered, $F(1, 27) = 11.41. p < .0003$. The standardized coefficients for the two variables were .72 and -.50, respectively. The correlations were .88 and -.73, respectively. These results are evidence of a strong relationship between these variables and prediction of the group into which subjects are placed. The classification function indicated 84% were correctly classified.

Suicide intent was measured using the SIS only with
Table 1
Means and Standard Deviations for the Three Primary Dependent Measures of Suicide Prediction

<table>
<thead>
<tr>
<th>Measure</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLES</td>
<td>-1.333</td>
<td>9.409</td>
</tr>
<tr>
<td>HS</td>
<td>1.800</td>
<td>1.474</td>
</tr>
<tr>
<td>MEPS</td>
<td>24.000</td>
<td>9.047</td>
</tr>
<tr>
<td>Control group (n = 15)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MLES</td>
<td>-21.600</td>
<td>15.724</td>
</tr>
<tr>
<td>HS</td>
<td>7.933</td>
<td>6.563</td>
</tr>
<tr>
<td>MEPS</td>
<td>16.600</td>
<td>8.650</td>
</tr>
<tr>
<td>SIS</td>
<td>14.333</td>
<td>7.880</td>
</tr>
<tr>
<td>Suicide group (n = 15)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. MLES is the modified Life Experiences Survey; HS is the Hopelessness Scale; MEPS is the Means-End Problem Solving Procedure; SIS is the Suicide Intent Scale and was used only with the suicide group.
<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>PR &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>1</td>
<td>3080.53</td>
<td>3080.53</td>
<td>18.35</td>
<td>0.0002*</td>
</tr>
<tr>
<td>Error</td>
<td>28</td>
<td>4700.93</td>
<td>167.89</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>29</td>
<td>7781.47</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 3

Hopelessness Scale ANOVA

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>PR &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>1</td>
<td>282.13</td>
<td>282.13</td>
<td>12.47</td>
<td>0.0015*</td>
</tr>
<tr>
<td>Error</td>
<td>28</td>
<td>633.33</td>
<td>22.62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>29</td>
<td>915.47</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4

Means-Ends Problem Solving Procedure ANOVA

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>PR &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>1</td>
<td>410.70</td>
<td>410.70</td>
<td>5.24</td>
<td>0.03</td>
</tr>
<tr>
<td>Error</td>
<td>28</td>
<td>2193.60</td>
<td>78.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>29</td>
<td>2604.30</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
the group of adolescents who had attempted or gestured suicide. These responses were correlated with the same group's responses to the HS. A Pearson product moment coefficient of correlation of .49, \( p < .06 \), was found.

The last hypothesis in this study stated that the severity of suicide intent in adolescents who have attempted or gestured suicide will covary with the severity of hopelessness; the study did not support this. The correlation coefficients among all dependent variables are presented in Tables 5 and 6.
Table 5

Control Group Correlations

<table>
<thead>
<tr>
<th></th>
<th>MLES</th>
<th>HS</th>
<th>MEPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLES</td>
<td>1.000</td>
<td>-0.309</td>
<td>-0.083</td>
</tr>
<tr>
<td>PR &gt; R</td>
<td>0.000</td>
<td>0.262</td>
<td>0.768</td>
</tr>
<tr>
<td>HS</td>
<td></td>
<td></td>
<td>-0.043</td>
</tr>
<tr>
<td>PR &gt; R</td>
<td>0.000</td>
<td></td>
<td>0.879</td>
</tr>
<tr>
<td>MEPS</td>
<td></td>
<td></td>
<td>1.000</td>
</tr>
<tr>
<td>PR &gt; R</td>
<td></td>
<td></td>
<td>0.000</td>
</tr>
</tbody>
</table>
Table 6

Suicide Group Correlations

<table>
<thead>
<tr>
<th></th>
<th>MLES</th>
<th>HS</th>
<th>MEPS</th>
<th>SIS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MLES</td>
<td>1.000</td>
<td>-0.333</td>
<td>-0.090</td>
<td>-0.598</td>
</tr>
<tr>
<td>PR &gt; R</td>
<td>0.000</td>
<td>0.226</td>
<td>0.748</td>
<td>0.018</td>
</tr>
<tr>
<td>HS</td>
<td></td>
<td>1.000</td>
<td>-0.376</td>
<td>0.487</td>
</tr>
<tr>
<td>PR &gt; R</td>
<td>0.000</td>
<td>0.168</td>
<td>0.066</td>
<td></td>
</tr>
<tr>
<td>MEPS</td>
<td></td>
<td></td>
<td>1.000</td>
<td>0.303</td>
</tr>
<tr>
<td>PR &gt; R</td>
<td>0.000</td>
<td>0.273</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIS</td>
<td></td>
<td></td>
<td></td>
<td>1.000</td>
</tr>
<tr>
<td>PR &gt; R</td>
<td></td>
<td>0.000</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Discussion

The present study explored the behavior of adolescents who had attempted or gestured suicide and compared it to that of adolescents who had never attempted or gestured suicide. The variables of hopelessness, negative life experiences, and interpersonal problem solving ability were investigated. In addition, the suicide intent of the adolescents who had attempted or gestured suicide was examined.

The findings were in agreement with the previous literature on life stress and hopelessness in suicidal adolescents. However, the results concerning problem solving ability were not in agreement with the previous literature. In addition, the responses by the suicidal adolescents to the Hopelessness Scale did not covary with their responses to the Suicide Intent Scale, as anticipated.

The importance of negative life experience and hopelessness to suicidal behavior is significant for its predictability and treatment. The first hypothesis stated that adolescent suicide attempters or gesturers will have been under higher negative life stress than adolescents who have not attempted or gestured suicide. Prior research has shown that the stresss in some adolescents' lives has become so great that they have chosen suicide as a way of escaping their problems (Ferguson, 1981; Harl & Keidel, 1979; Miller & Salter,
This study demonstrated that adolescents who have attempted or gestured suicide do exhibit significantly more stress than adolescents who have never attempted or gestured suicide. The modified LES constructed for this study allowed the objective measurement of both negative and positive life stress in adolescents for the first time.

Negative life experience was, thus, shown in this study to be an important indicator of potential suicidal behavior in adolescents and, as such, worthy of serious scrutiny by parents and guardians, persons in authority in the school environment, physicians, and clinicians. As a part of this study, an instrument was constructed to measure both positive and negative life stress in adolescents. While instruments such as the Life Experiences Survey (Sarason et al., 1978) measure both positive and negative stress in adults, there was no such measure for adolescents. This new instrument can, therefore, be used in general stress maintenance therapy for adolescents, as well as in the assessment of negative life stress. The specific stressors can be identified in the adolescent's life and treatment can be centered on those stressors.

Because high negative life stress is a good predictor of probable future suicide attempts, it should be thoroughly investigated and the effects treated, especially in adolescents who have already attempted or
gestured suicide. Cognitions about the high negative stress can be modified and the adolescent can be taught that past stressors need not control the future. In addition, the adolescent can be aided in working through each negative life experience as it arises and in reevaluating its relative importance; the experience can even be perceived as a learning tool to be used to his or her advantage in the future.

Hopelessness has been found to be a better indicator of suicide than depression (Beck et al., 1985; Dyer & Kreitman, 1984; Minkoff et al., 1973). It is a predictor of future suicide and can serve to differentiate suicidal from nonsuicidal persons. The second hypothesis stated that adolescent suicide attempters and gesturers will demonstrate more hopelessness than adolescents who have not attempted or gestured suicide. It was determined in the present research that the suicide group did demonstrate significantly more hopelessness than the control group. High school aged subjects were used exclusively.

Adolescents who appear to have a negative view of the future should be closely observed by the faculty and staff of high schools and by parents and guardians, as well. Certain types of behaviors are indicative of hopelessness: showing no interest in planning for future activities such as college, vocational training, or employment; depressive behaviors, such as
self-isolation, changes in sleeping and eating patterns, and general malaise. When combinations of these types of behavior are observed, therapy directed at changing the individual's outlook on the future is indicated.

Hopelessness can also be treated in adolescents who have already attempted or gestured suicide. Therapy would center on constructing concrete and achievable plans for the future. The benefits of higher education could be emphasized with those who are good students, while specific types of vocational training or employment would be more appropriately emphasized with others. Helping the adolescent to picture a future filled with more reinforcing experiences than encountered in the present or the past is the primary goal of such therapy.

Schotte and Clum (1982) demonstrated that college students who are poor problem solvers when highly stressed are likely to become hopeless and engage in suicidal behavior. The study found that the control group subjects were better problem solvers than the suicide group subjects, however, there was not a significant difference. Perhaps the Means-End Problem Solving Procedure (Platt et al., 1971) does not measure the problem solving skills needed to ask another person for assistance in combating the stressors which adolescents encounter. As was previously mentioned, this study used high school aged adolescents as subjects.
to measure the effects of problem solving ability, life experiences, and hopelessnessness as they relate to suicide. These particular variables have not been investigated together using this age population.

In other suicide research, hopelessness has correlated with suicide intent (Beck et al., 1974). The fourth hypothesis of this study stated that suicide intent will vary with hopelessness in the suicide group. While there was a positive correlation between these two variables, the correlation was not large enough to be significant. Because of the small sample size, it is hypothesized that a significant relationship may be found if more subjects were used.

The findings of this study suggest that the negative life occurrences in a group of adolescents led to less hope for a promising future and suicide attempts or gestures became a means of response. Future research using a larger number of subjects would further confirm this hypothesis. Because only subjects of middle socioeconomic status were used in this study, future research should include subjects of low socioeconomic status to determine if the findings may be generalized to the adolescent population at large. A treatment study including therapy to counteract hopelessness and past negative life experiences would also be beneficial. The Hopelessness Scale (Beck) and the Modified Life Experiences Survey could be used as pretest and posttest
measurements of the effectiveness of such therapy.

An instrument that measures the problem solutions which may lead to suicide or prevent its choice should be constructed. Problem solving ability deficits have been implicated in the choice of suicide as a method of managing stress in some persons' lives. This type of problem solving would be measured better by an instrument designed to examine the behaviors and stresses that are part of the decision making process which leads to suicide.
References


Psychiatrische Praxis, 8, 31-33.


Clinical Psychology, 47, 937-945.


DeCatanzaro, D. (1984). Suicidal ideation and the residual capacity to promote inclusive fitness: a


Holmes, T. H., & Rake, R. H. (1967). The social


overdoses. *Journal of Nervous and Mental Diseases, 171*, 250-252.


Mishara, B. L. (1975). The extent of adolescent


New York: Scribner.


Pfeffer, C. R. Suicidal fantasies in normal children.


Psychology (in press).


Parental rearing patterns and suicidal thoughts.  
**Acta Psychiatrica Scandinavica, 67, 429-433.**


White, R. J. (1978). Suicide intent and death attitudes among adolescents: distinguishing suicidal from suicidalogenic attitudes (Doctoral dissertation, California School of Professional Psychology,


Appendix A

Two Factor Index of Social Position
PLEASE NOTE:

Copyrighted materials in this document have not been filmed at the request of the author. They are available for consultation, however, in the author's university library.

These consist of pages:

Appendix A, pages 88-89
Appendix D, pages 98-100
Appendix E, pages 103-104
Appendix F, page 106
Appendix G, pages 108-109
Appendix H, pages 111-112
Appendix B

Psychiatric Institute Consent Form
CONSENT FOR PARTICIPATION IN
A RESEARCH PROJECT

I, [Subject], agree to participate in a research project concerning Adolescent Suicide to be conducted by Sally Stephenson (Investigator).

1. General Project Description:
   Adolescents who have attempted or gestured suicide will be compared to a group of adolescents with physical problems on questionnaires concerning hopelessness, life experiences, suicide intent, and problem-solving ability.

2. Alternative treatments that might prove equally as advantageous:
   N.A.

Howard A. Hoffman, M.D., F.A.P.A., President Medical Director
Lawrence A. Brain, M.D., Director of Child/Adolescent Services
Cecilia M. Scoran, R.N., M.S.N., Director, Patient Services
Donald F. Silver, Administrator

Psychiatric Institute of America
a subsidiary of National Medical Enterprises, Inc.
3. Potential discomforts and risks:
   Some anxiety.

   (Signature of Investigator)

4. I, the undersigned, understand that this research project is completely voluntary.

5. I understand that medical information obtained during the research project is confidential.

6. I understand that insurance benefits will be used to cover all medical costs arising directly from participation in the research project and that the Hospital will bear financial responsibility for only those costs not covered by medical insurance up to a maximum of One Thousand ($1,000.00) dollars.

7. I understand that my consent may be revoked at any time without affecting my status in The Psychiatric Institute treatment program.

8. I acknowledge that: (1) I have read this consent form, (2) All my questions have been answered, and (3) I understand the nature of this project.

   Signature of Subject         Age         Date

   Guardian                    Date

   In my opinion, the subject has signed this consent form knowingly and voluntarily.

   Signature of Witness        Date
Appendix C

Georgetown University Hospital Consent Form
1. Project Name: Adolescent Suicide Attempters and Life Stress, Problem Solving Ability, Suicide Intent and Hopelessness

2. Project Director: Telephone:
This research was approved by the Georgetown University Institutional Review Board.

3. The purpose of this research is: To determine whether or not adolescent suicide attempters demonstrate more negative life stress, poorer problem solving ability and more hopelessness than a control group of adolescents who have not attempted suicide.

4. The general plan of the research is: To administer psychological tests. These are all relatively short answer questionnaires. The results will be sent to the attending physician and the patient. These measures will be administered to 30 suicide attempters and 30 Inpatient adolescents who have not attempted suicide.

5. The following procedures will be performed on those who participate in this research: Psychological tests

6. Those who participate in this research will be asked to do the following things: Sign a consent form and respond to psychological tests.
7. This research may result in the following discomforts:

Induced anxiety symptoms

8. Participation in this research may involve the following risks:

Induced anxiety

9. The investigators will do everything possible to prevent or reduce discomfort and risk, but it is not possible to predict everything that might occur. If a participant has unexpected discomfort or thinks something unusual or unexpected is occurring he/she should contact:

Suzanne M. Bronhelm, Ph.D.
Sally H. Stephenson, M.A.
for follow-up supportive care

In the event of any injury resulting from any research procedure, acute medical care will be provided at the usual charge, but no Federal, District of Columbia Government or Georgetown University funds will be available for compensation. Additional information on this subject may be obtained from the Office of the Medical Director, Georgetown University Hospital.

Anyone who agrees to participate in this research may change his/her mind at any time. Refusal to participate or to continue to participate will not harm an individual's relationship with the investigators, his/her physicians, the hospital or the University.

I have read the above description of a research project (or: it was read to me by: ) and I had all of my questions answered to my satisfaction. I agree to participate in this research.

I acknowledge I have received a personal copy of this signed consent form.

(signed) ___________________________  (Participant or Legal Representative)  Date

(signed) ___________________________  (Witness)  Date

(signed) ___________________________  (Investigator)  Date
Appendix D

Life Experiences Survey
THE LIFE EXPERIENCES SURVEY

Listed below are a number of events which sometimes bring about change in the lives of those who experience them and which necessitate social readjustment. Please check those events which you have experienced in the recent past and indicate the time period during which you have experienced each event. Be sure that all check marks are directly across from the items they correspond to.

Also, for each item checked below please indicate the extent to which you viewed the event as having either a positive or negative impact on your life at the time the event occurred. That is, indicate the type and extent of impact that the event had. A rating of -3 would indicate an extremely negative impact. A rating of 0 suggests no impact either positive or negative. A rating of +3 would indicate an extremely positive impact.
Appendix E

Modified Life Experiences Survey
The Modified Life Experience Survey

Listed below are a number of events which sometimes bring about change in the lives of those who experience them and which necessitate social readjustment. Please respond to those events which you have experienced in the recent past.

Please indicate the extent to which you viewed the event as having either a positive or negative impact on your life at the time the event occurred. That is, indicate to the left of each item the type and extent of impact that the event had. A rating of -3 would indicate an extremely negative impact. A rating of 0 suggests no impact either positive or negative. A rating of +3 would indicate an extremely positive impact.
Appendix F

Hopelessness Scale
Appendix G

Means-End Problem Solving Procedure Manual
Appendix H

Suicide Intent Scale
Vita

Name: Sally Hill Stephenson

Date of Birth: September 14, 1945

Education:

Ph.D.—Clinical Psychology
Minor—Developmental Psychology
Louisiana State University 1980-1985

M.A.—Clinical Psychology
Louisiana State University 1978-1981

Ph.D. Candidate—Educational Research
Internship completed
Coursework completed for New York State Certification in Educational Administration
Hofstra University 1971-1973

A.B.—History
Certification in Secondary Education
University of Georgia 1966-1967
Dean's List

Armstrong State College
Savannah, Georgia, 1965-1966
President of Class
Permanent Dean's List

St. Mary's Junior College
Raleigh, North Carolina, 1963-1965

Professional Experience: Clinical. 1. Psychology Consultant, Georgetown University Child Development Center and Hospital July 1984 - Present.
5. Co-therapist, Group Therapy: Behavioral Treatment of Obesity Patients, Department of Psychology, Louisiana State University, Fall 1980.

6. Co-therapist, Group therapy: Behavioral Treatment of Migraine and Muscle Contraction Headache Patients, Department of Psychology, Louisiana State University, Fall 1980.


Teaching. 1. Graduate Teaching Assistant, Hofstra University, Fall 1971.


2. Graduate Research Assistant, Louisiana State University, Fall 1982 - Spring 1983.


Publication:

McNally, L., & Stephenson, S. H. **Living Room School Cognitive Assessment Inventory.** Assessment procedure for federally funded project for economically disadvantaged preschoolers.
Memberships:

Junior League of Washington

Division 12—Pediatric Psychology, American Psychological Association

Kenwood Country Club, Bethesda, Maryland
DOCTORAL EXAMINATION AND DISSERTATION REPORT

Candidate: Sally Hill Stephenson

Major Field: Clinical Psychology

Title of Dissertation: Adolescent Suicide and Life Stress, Problem Solving Ability, Suicide Intent, and Hopelessness

Approved:

[Signatures and names of committee members]

EXAMINING COMMITTEE:

Date of Examination:

October 22, 1985