Suicidal Behavior Among College Students

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IN RECENT YEARS much attention has been focused on the suicidal college student. With the increasing visibility of campus behavior, behavioral scientists and the mass media have become increasingly interested in almost all aspects of college life other than classroom activity. Suicidal deaths attract interest because they seem to occur suddenly, apparently without explanation, in a youthful population that seems to have much to live for. Suicide is estimated to be the second leading cause of death among college students (*1, 2*).

Concern with suicidal behavior among college students has led to two major foci in research efforts. One group of studies dealt with suicide rates among students versus those among nonstudents of the same age group. Temby at Harvard (*3*), Braaten and Darling at Cornell (*4*), and, more recently, Bruyn and Seiden at Berkeley (*5, 6*) concluded that the suicide rate was considerably higher among students than among nonstudents of the same age. An earlier study by Parnell at Oxford University in England (*7*) concluded that the suicide rate for Oxford students was considerably higher than for nonstudents. A common factor in these studies was that they were conducted at large, prominent American and British universities whose prestige and academic standing are hardly typical of the so-called "typical" 4-year liberal arts college.

In a study preliminary to the research reported here (*8*), our findings were contrary to the foregoing. We gathered statistical data from the Los Angeles County coroner's office which included all the committed suicides among college students in the county from 1960 to early 1967. We were confident of the accuracy of the data because of the procedure used by the staff of the Los Angeles Suicide Prevention Center in investigating all equivocal deaths.

From 1960 to early 1967, 78 college students committed suicide. The population of college students ranged from 176,000 in 1960 to 264,000 in 1966. During this time, the suicide rate among college students varied from 5.0 per 100,000 to 5.1 per 100,000 with minor fluctuations in between. The more recent extension of that earlier study included data from 1968; the suicide rate in that year among the same student population, which now numbered 300,000 and included 52 colleges and universities, was 7.2. Although this rate was higher than in previous years, it was much lower than the rate for nonstudents aged 15 to 29 in Los Angeles County.

In 1960, the suicide rate for all persons in the county aged 15 to 29 years was 9.1; in 1965 it was 16.6. This was roughly two to three times the college student rate. While we admit that some bias may occur with the use of this age group, the figures clearly indicate that the suicide rate among nonstudents is higher than among college students, at least in Los Angeles County.

Seiden (*6*) suggested that it was reasonable for suicide rates at top-ranked American universities,

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such as Harvard, Yale, Cornell, and Berkeley, to be higher than the rates at schools of lesser academic reputation. The data in our study support this suggestion because in Los Angeles County the large universities have higher suicide rates than the junior colleges and small liberal arts colleges. The factors that apparently account for the largest amount of variance in these rates are the average age and sex ratios of the student body. The presence of older males (in this case over 25) may account for much of the higher rates of the larger, more prestigious institutions.

The other major area of interest in studies of suicides among students is the issue of campus stress and its effect on suicidal behavior. As early as 1910, world-famous psychoanalysts met in Vienna to discuss the effect of academic stress and autocratic teachers on the increasing rate of suicides among students (*9*). More recent research in this area, such as that of Lyman (*10*), suggests that academic pressure may be an important variable in student suicide. This theme has also occurred frequently in many reports by the mass media. Other researchers, such as Rook (*11*) and Seiden (*6*), suggest that although the prestige universities may have higher suicide rates, it may be that selection of unstable students contributes more to these rates than does academic pressure. Rook stated that higher entrance requirements at the prestige universities may lead to a selection of more emotionally unstable students.

Our study includes the two major issues—academic stress and student versus nonstudent suicide rates—as well as a host of others, such as the relation of suicidal behavior to academic achievement, sexual behavior, drug usage, religious convictions, and parental behavior. This study differs from other similar research in two major respects. Previous research on student suicide generally focused on one major college or university or, in a few instances, on several selected universities. Our study includes all 52 of the colleges, universities, and community colleges in Los Angeles County—a geographically large and heterogeneous community of more than 7 million people. Most studies of student suicide attempt to present a statistical overview of a fairly large population of students or a few selected case studies of suicidal college students. Our research includes both of these components.

Subjects

We studied four groups of subjects obtained over a 2-year period, from September 1967 to August 1969, in Los Angeles County. Group 1, 14 committed suicides, was obtained through the coroner's office. The relative accuracy of the data was enhanced because we are deputy coroners who investigate equivocal modes of death, and thus we have complete access to the information. These 14 suicides represented one-third of all college student suicides during the 2 years. We obtained group 2, 14 attempted suicides, and group 3, 20 suicide threats or suicide ideations, through personal contact with all student health centers, counseling centers, major inpatient psychiatric facilities, and outpatient clinics in the county. Group 4, 17 nonsuicidal controls, consisted of student volunteers at several universities and colleges and volunteers among students visiting the Suicide Prevention Center to gather information for term papers on suicide. The only criterion for group 4 was that the student had never been, nor was he currently, suicidal.

In the following text, the terms "nonsuicidal," "control," and "nonsuicidal control" are used interchangeably in reference to group 4. The term "suicidal groups" refers to groups 1, 2, and 3 combined.

Procedures

A group of research assistants was trained to conduct interviews with the suicidal students and other persons who were judged to have significant knowledge about the students for whom we use the term "significant others." The interviewers were mostly psychiatric social workers and psychology graduate students. The interviews concerning group 1, the committed suicides, were conducted mainly with parents, other relatives, friends, and therapists. For almost all of group 1, at least two interviews were held with either a friend, relative, or therapist.

A major reason for the multiple interviews was a concern that the data would be unknown or of questionable validity when only single interviews were done. When we found that this was not so—there were few contradictions in the data when two or three different informants were interviewed—later in the study only single interviews were done for many of the subjects when other informants were difficult to contact. This procedure was particularly common for the nonsuicidal control group.

The structure of the interview situation was as follows: The interviewer began with an 11-page data sheet entitled "Student Interview Guide." This guide contained 88 items answerable by yes, no, or do not know concerning the student's family, social and educational history, sexual behavior, religious attitudes, suicidal and psychiatric history, and drug usage. The final section, administered only to students, requested the student to estimate the amount of drug usage at the school he was currently attending.

As the interviewer posed the questions and marked the answers, he checked certain areas which he felt required greater in-depth inquiry. The method for determining this was taught during the training period. This final part of the interview generally lasted 20 minutes to ½ hour. The second phase of the interview, the open-ended in-depth phase, was then conducted with the same informant and tape recorded. An effort was made to elicit more detailed psychodynamic information that the objective interview guide could not cover; the areas covered, however, closely parallel the general areas covered by the data sheet. This in-depth phase required ½ to 1 hour. Second or third interviews with other informants followed exactly the same format.

When occasional discrepancies, contradictions, or conflict in objective information occurred, we examined all the data and made judgments as to which were more likely to be accurate. All of the second phase, in-depth interviews were transcribed.

Results

Demographic description of sample. The total sample for intensive study consisted of 65 college students ranging in age from 18 through 27 years, with a mean age of 21.4 years. Although the committed suicide group tended to be slightly older than the others, the total variation in mean ages between the four groups was so small as to be statistically nonsignificant.

The total sample of 35 males and 30 females was distributed as follows:

Group	*Males*	*Females*
Committed suicide	13	1
Attempted suicide	2	12
Suicide threat and ideation	12	8
Nonsuicidal control	8	9

The variation seen in these groups substantially reflects the variations found in the general population; for example, the number of male suicides is greater than female suicides, while many more females attempt suicide than do males. The sample may be biased toward more males, reflecting the fact that there are more male college students.

Of the 65 students, only 10 were married, 55 were single, one was divorced, and two had been married more than once. Little variation was seen in the marital statistics other than a slight tendency for the nonsuicidal group to have a higher percentage of married students than the other groups. The distribution of the groups by marital status and by religious affiliation is shown in the table.

Interviews with students and significant others. The following results are reported according to the categories appearing in the interview guide.

CATEGORY 1, FAMILY HISTORY OF THE STUDENT: No significant differences were seen among the four groups for parental death, parental separation or divorce, or history of parental suicide.

There were no significant differences in the occurrence of a psychiatric history among parents, but whenever a psychiatric or suicidal problem did occur, regardless of which group, the mother was more likely to be represented.

Families of the committed suicide group and of the nonsuicide control group tended to have a higher socioeconomic status rating (income and education) than families of the other groups ($P<0.10$). There was a tendency for parents of the suicide attempt, threat, and ideation groups to have had a serious physical illness more frequently than parents of the committed suicide group ($P<0.10$).

CATEGORY 2, SOCIAL AND EDUCATIONAL BACKGROUND OF THE STUDENT: Of the suicidal students, 61 percent were reported to have spent "considerable spare time in solitary activities" before high school, while only 31 percent of the nonsuicidal students reported this ($P<0.05$).

A larger percentage of the nonsuicidal students had above-average grades in high school than the suicidal students ($P<0.02$). This continued into

Distribution of study subjects by marital status and religious affiliation

Group category	Marital status				Religious affiliation				
	Married	Single	Divorced	Multiple	Catholic	Protestant	Jewish	Other	None
Committed suicide	2	12	0	0	2	5	2	3	2
Attempted suicide	1	11	0	2	2	8	3	1	0
Suicide threat and ideation	2	18	0	0	6	7	3	0	4
Nonsuicidal control	5	11	1	0	3	8	4	1	1
Total	10	52	1	2	13	28	12	5	7

college where the nonsuicidal student had a higher grade point average than the suicidal ($P<0.001$). Only 8 percent of the suicidal students were actually failing, however.

A larger percentage of the nonsuicidal students (59 percent) and students who committed suicide (64 percent) entered first-rate colleges from high school than did students in the suicide attempt, ideation, and threat groups (23 percent), $P<0.01$.

The nonsuicidal students dated more frequently in high school and college than did their suicidal counterparts. Of the nonsuicidal students, 70 percent dated one or more times a week, while only 51 percent of the suicidal students dated that often ($P<0.001$).

CATEGORY 3, SEXUAL BEHAVIOR: Of the suicidal students, 43 percent had never had sexual intercourse, while only 18 percent of the nonsuicidal students had not had this experience. The difference was significant ($P<0.01$), and it is even more impressive because 56 percent of the suicidal students were males, while 47 percent of the nonsuicidal students were males. Furthermore, there was a slight tendency for the committed suicide group to have less sexual experience than the other two suicidal groups ($P<0.100$), although more than 90 percent of the committed suicide group were males, while less than 40 percent of the other suicidal groups were males.

CATEGORY 4, RELIGIOUS INVOLVEMENT OF THE STUDENT: No significant difference was seen in religious affiliation (Protestant, Catholic, Jewish, other) as a function of suicide or nonsuicide category. There also were no differences among the students in belief in God. However, nonsuicidal students actually attended religious services less often than the suicidal students. Students in the committed suicide group tended to express some belief in an afterlife more frequently than the other suicidal groups ($P<0.10$). No difference in this regard was seen between suicidal and nonsuicidal students.

CATEGORY 5, SUICIDAL AND PSYCHIATRIC HISTORY OF THE STUDENT: Of the suicidal students, 58 percent had had some prior psychotherapy or counseling, while this was true for only 17 percent of the nonsuicidal students ($P<0.01$).

The suicide groups were more likely to have had a history of psychiatric hospitalization than the nonsuicide group ($P<0.05$). The committed suicide group was more likely to have had a history of psychiatric hospitalization than the combined suicide attempt, threat, and ideation groups ($P<0.01$). Although 58 percent of the committed suicide group had been in psychiatric hospitals in the past, only 35 percent had been known to be suicidal in the past. This difference was highly significant statistically ($P<0.01$).

The same trend was evident when prior suicide attempts were considered. Only 28 percent of the committed suicide group had made a prior attempt, while 59 percent of the suicide attempt, threat, and ideation groups had made a prior attempt ($P<0.01$).

CATEGORY 6, DRUG USAGE: Few differences were seen in the use of nonprescription drugs among the different groups. Suicidal students used marihuana or LSD to the same degree that nonsuicidal students used them. About half of all the students had tried marihuana at least once, and about one-fifth had tried LSD or some other hallucinogenic drug at least once. The only significant differences were in the use of barbiturates and sedatives. Suicidal students used sleeping preparations in a nonprescribed, nontherapeutic context more often than the nonsuicidal students ($P<0.05$). The committed suicide students tended to use drugs of any kind less frequently than any of the other groups ($P<0.10$).

Ratings of the data sheet summaries. Four experienced members of the professional staff of the Suicide Prevention Center took part in the ratings. The rating sheet contained six items for which interrater reliability was measured by percentage of agreement. The percentage of agreement among the raters across the items was 0.69. A measure of the accuracy with which the raters placed the summaries in the correct category (blind—without knowledge of the actual outcome) was the comparison of the actual number of correct placements compared to what would be expected by chance. Correct placements were 56 percent, while chance expectation was 25 percent. This was a highly significant difference ($P<0.01$).

This rough, but satisfactory, measure of validity of rater judgment, inspired greater confidence in the results of the raters' judgments that follow.

Using the case summary sheets, the raters attempted to assign a lethality rating which assessed the probability that a given person would commit suicide within a given period of time. There was bound to be a marked difference in the ratings of lethality as a function of suicide category. The committed suicide group was more likely to be rated as having a high lethality, and the nonsuicidal group was more likely to be rated as having a low lethality. The lethality ratings for the suicide attempt, ideation, and threat groups were in between the other two groups. All these differences were highly significant statistically ($P<0.01$).

Fifty percent of the committed suicide group was rated as having a high degree of emotional disturb-

ance, while the other groups showed a lesser degree of emotional disturbance: suicide attempt, 38.5 percent; suicide ideation and threat, 21.1 percent; and nonsuicide, 6.3 percent.

Another interesting finding was that the raters saw no differences in overt communications regarding suicide attempt occurring throughout the different suicidal groups. For the committed suicide group, however, the raters saw overt communications as less frequent. Regarding covert communications, the raters saw no differences in any of the groups.

The raters were also asked to evaluate the relative contribution of 12 factors to the student's suicidal behavior. They read the case summaries for material that might be regarded as related to or predisposing to suicidal behavior. The highest ratings were assigned to such contributing factors as predisposing character and early childhood experiences. In these factors, the mother first and then the father were judged to play significant roles in contributing to suicidal predisposition. Although these factors may appear rather vague and all encompassing, they are nevertheless clearly discernible from such factors as drug usage, campus pressures, and other such immediate stresses which the raters saw as relatively minor contributing factors.

Discussion

This discussion is based on the results presented in the previous section. Extensions of and generalizations from the data must be viewed within the limitations, geographic and otherwise, of our sample. The results lend themselves to a description of the background and lifestyle characteristics of students in the different categories of suicide.

The college student who commits suicide is more likely to be a male than a female and to come from an intact middle-class family with few gross disturbances such as mental illness, alcoholism, or psychiatric problems. This student tends to have average grades in college. The stereotyped picture of the brilliant but neurotic student or the failing student is not supported by this study. The student who commits suicide shows a pattern in early adolescence and perhaps as far back as preadolescence of spending much of his spare time alone. While this tendency was seen in all the suicidal groups as opposed to the nonsuicidal group, it was most pronounced in the committed suicide group.

Clinical findings by Schrut (*12, 13*) indicate that if the history of the student is one of progressive or continued isolation from early childhood to the present time, the prognosis for suicide is far more grave than if the student's history is one of being able to relate fairly well, at least, at some point early in his life and then tend toward social isolation during adolescence. These studies suggest that the quality of the solitary activities is significant for prognosis. They further indicate that children who had a poor emotional relationship with significant others in early childhood are more likely to become suicidal adolescents and young adults.

The inability of the committed suicide students to communicate is borne out further in our study by the fact that they were seen as overtly communicating suicide less than the other two suicidal groups. Since boys generally are less communicative emotionally than girls, this may explain the large ratio of boys over girls who commit suicide. On the other hand, the isolation and withdrawal is so great that by the time the student approaches the suicidal act he feels that he has no one with whom he can communicate.

Thus, the students who committed suicide were essentially more isolated, felt more hopeless, and were less likely to send out communication signals for help. This is consistent with the character of a large segment of the suicidal students whose ability to relate to others was minimal and who were unable to or less likely to ask for help even by means of either threatened or attempted suicide. The students who commit suicide are different from the adolescent females who are most likely to signal for help by means of threatened or attempted suicide. The majority of the suicide attempt sample in our study were females, a direct contrast to the sex ratio of the committed suicide sample.

Females, in contrast to males, characteristically are able to ask for medical help and to communicate their anxieties and fears to significant others. In addition, males tend to be acutely aware of feelings of sexual inadequacy or inadequacy of masculinity and believe it shameful to communicate such feelings much more than females with similar problems. This seems to hold true for college-age males and females as well as adolescents.

What are some antecedents which might explain how the youngsters who committed suicide got to that point? Since the study revealed no major overt disturbances in the parents, how is it that parents are still seen as playing a major contributory role? Careful study of the individual students in the committed suicide group revealed a pattern among the parents of much overt striving for themselves and their children to be successful. While this is hardly abnormal in itself, in these parents it tends to compensate for their own feelings of failure, inadequacy, and insecurity. They must see their children as an extension of their fantasied successes, and therefore

they are likely to block out other kinds of communication, especially those implying failure, from their children. These children learn early that only by being a perfect projection of their parents' fantasies will they win their approval. The parents of these students have great personal expectations from their children and place a greater onus of responsibility on them.

The failure of such a child to live up to parental expectation is often experienced as a great humiliation by the child whose super ego frequently continues to make demands of him far beyond those that the parents are actually making at this point in his life. These parental expectations of students who commit suicide are far more than the usual wishes for success that most parents have for their children. They represent a total lack of acceptance of their children as they are.

Children who commit suicide find that their efforts to express their feelings of unhappiness, frustration, or failure are totally unacceptable to their parents. Their feelings are ignored, denied, or met by defensive hostility: "What have you got to be unhappy about; you have everything; we don't beat you; what do you want?" Such a response seems to occur often in these families, driving the children into further isolation with the feeling that "something" is terribly wrong with them.

Frequently there is also a quality in the male student who commits suicide which suggests that he has not lived up to his own expectations of masculine accomplishment. Sometimes a young male in that state of mind is struggling with homosexual conflicts, and few emotions are more devastating to a young man in the transition from adolescence to adulthood than the fear that he has failed his family and himself by perhaps having a homosexual orientation. The data in our study do not suggest that any of the young men were homosexual or that they had homosexual contacts, but rather that the underlying conflict and fear may have been present.

We also saw some specific, clear-cut differences between the committed suicide group and the other suicidal groups. The greater frequency of psychiatric hospitalization, combined with a higher rating of emotional disturbance and fewer prior suicide attempts, suggest a higher incidence of psychotic disorders in the committed suicide group.

From work done at the Los Angeles Suicide Prevention Center, there is some clinical evidence that a suicidal person who is also diagnosed as psychotic is a higher suicide risk. The evidence suggests that the student who commits suicide has a greater predisposition toward self-destruction and therefore requires less overt stress to initiate the suicide act. This was borne out to some degree by the fact that the stress or "trigger" factor is such that a loss or threatened loss of a loved one occurred less often among the committed suicide group. While this particular example may be an artifact of the other data (the committed suicide group tends not to have a loved one to begin with), the reports of stress were higher in the suicide attempt, threat, and ideation groups. The reaction of the latter groups was to communicate suicide openly, verbally, or behaviorally, but often in such a way as to let others know the psychological pain they were experiencing and to ultimately reduce the stress.

In our study, the suicide attempt group contained a much higher number of females than males. This probably represents the general picture among female college students. Two previous studies showed that female adolescents have the highest suicide attempt rates (*14, 15*). Yet, another study showed that female adolescents have a relatively low suicide rate, far lower than a group of males of similar age (*6*). It appears that college-age females are also more able to communicate their emotional pain to others in attempting to alleviate their stress. Thus it can be expected that a group of college students will have a higher percentage of females than males in the suicide attempt and threat categories and a higher percentage of males than females in the committed suicide category.

We then speculate that the psychodynamics of the students who attempted suicide in relation to their childhood experiences with their parents were different from those of the students who committed suicide. They may have seen their parents as unresponsive to their needs rather than denying their needs and used their parents as fantasied projections, whereby they will become unconscious projections of their parents. The parents of the suicide attempt and ideation groups were seen as more passive and having relatively little in the way of goals for their children. On the other hand, these parents tend to not give supportive or enthusiastic response to their children in relation to success or failure.

Further clinical impressions gleaned from the data are that the suicide attempt and ideation students realize early in life that they cannot really please their parents and that most of the things they do fail to get a response. Under stress, then, these students may turn to the dramatic expression of suicidal behavior as a desperate way of making certain that they will be heard.

An important difference between the suicidal and the nonsuicidal groups was the greater amount of sexual experience among the latter. Among the

suicidal groups, there was less sexual activity among the committed suicide group than among the others. This tendency was also seen in the ratings of emotional disturbances; the committed suicide students were rated as most disturbed and the nonsuicidal students as least disturbed. While frequency of sexual behavior is at best only a rough measure of sexual adequacy, at least in this population it may serve as a rough estimate of positive feelings of orientation toward life. However, we see sexual behavior or lack of such behavior as indicative of the student's overall psychosexual development and representative of his overall image of himself and his emerging identity, so that his lack of sexual contact is a byproduct of these and certainly not a cause.

The issue of the relation of drug usage to suicidal behavior has attracted much attention lately. Our study results indicate that the students who committed suicide used drugs less often than all the other students in the study. Even for those students who committed suicide who did use drugs, such as LSD and barbiturates, it was evident that they had manifested serious psychiatric problems before their initial use of drugs.

The relative absence of drug usage among the students who committed suicide might also reflect another way in which they were cut off from experiences common to their nonsuicidal peers. It may well be that the lack of experimentation with drugs among the committed suicide group, particularly with marihuana, can be explained partially by the fact that marihuana is often used in association with social interaction, and, of course, this group tended to be socially withdrawn and isolated.

The pattern of drug usage among the suicidal students may represent two different psychodynamic meanings. One meaning may reflect the student's inability to deal with problems, conflicts, and feelings, and he may use drugs as a temporary escape route into oblivion. This old psychodynamic interpretation of drug usage is similar to the explanations of alcohol use among alcoholics. Drug use is a self-destructive equivalent to some suicidal behavior and may have the same meaning to various persons. A second related interpretation takes the explanation a step further—in some cases the drug user actually makes his unhappy life bearable through drugs and thus postpones the ultimate suicide act. Yet, many of these students may have such strong self-destructive drives that they eventually die of an "accidental" overdose of drugs.

All the suicidal groups combined used barbiturates for "nontherapeutic" purposes more than the nonsuicidal group. This reflects the usual association of use of barbiturates and suicidal depressive behavior. It certainly fits the psychology of the self-destructive person who may first experiment with the feelings of blissful drowsiness, then near oblivion, and finally loss of consciousness and death. In such instances, the barbiturate use clearly becomes a tool by which the suicidal person can act out his self-destructive impulses or experiment with his ambivalence toward death. It is not, however, a cause of his being suicidal.

A cursory examination of our interview data and clinical experience indicates that the students who use drugs persistently are more likely to be chronically emotionally disturbed. Drugs of all types, including marihuana, are commonly but not exclusively used as "tranquilizers" in an attempt to find relief from anxiety. Generally, the patient is emotionally ill before using drugs, and the drugs reflect rather than cause the emotional illness.

What emerges most clearly from our data is that although chronic drug usage may be related to degree of emotional disturbance, it does not seem to be related to patterns of suicide among college students. Again, even here, it seems that the more troubled the student, the more likely he is to use marihuana or other drugs frequently and regularly in contrast to the emotionally healthy student.

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PECK, MICHAEL L. (University of Southern California School of Medicine) and SCHRUT, ALBERT: ***Suicidal behavior among college students. HSMHA Health Reports, Vol. 86, February 1971, pp. 149–156.***

A study of all college students in Los Angeles County from 1960–68 revealed a suicide rate in this population that ranged from 5.1 to 7.2 per 100,000. This rate was somewhat lower than previous estimates and lower than the rate among a control group of non-college students. Despite the lower estimated suicide rate, suicide remains the second or third leading cause of death in this age group. When other suicidal behaviors, such as attempts and threats, are added, and the impact of all suicidal behaviors on significant others and the community are studied, the magnitude of the problem reaches great proportions.

According to data obtained on 65 college students, from 1967 to 1969, the typical student who committed suicide was withdrawn, isolated, and tended to not communicate well with his peers. Parents of these students, while not necessarily overtly disturbed, tended to cover their own feelings of inadequacy as parents by making their children into fantasied projections of themselves. They seemed to be uninvolved with the student himself, as he really was.

Those who committed suicide were mostly males, average-grade students, who had few social or sexual contacts, and who tended not to be involved with drug usage. There was little evidence that campus pressures contributed to their suicides.

The findings suggested that for students who commit suicide there is a common factor of social isolation and withdrawal and that lack of sexual experience or drug usage are symptomatic of this withdrawal.

The students who attempted suicide were mostly females, and they exhibited different characteristics from the committed suicide group.