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# ADOLESCENT SUICIDE:

# NONCONTEMPLATORS, CONTEMPLATORS, AND ATTEMPTERS

A Thesis

Presented to the

Faculty of

California State University,

San Bernardino

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

in

**Interdisciplinary Studies** 

Carole Ohlendorf Dockstader

by

June 1996

# ADOLESCENT SUICIDE:

# NONCONTEMPLATORS, CONTEMPLATORS, AND ATTEMPTERS

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June 1996

Approved by:

Dr. Elizabeth Klond Chair, Psychology

Dr. John Heeren, Sociology

Dr. Richard Eberst, Health Science

#### **ABSTRACT**

The purpose of this study was to examine the association between suicidal contemplators, noncontemplators, and attempters and their attitudes about suicide. In addition, feelings of loneliness, hopelessness, and perceived social support were investigated. Attitudes toward suicide was assessed using the Suicide Opinion Questionnaire. The Multidimensional Scale of Perceived Social Support was given to assess social support, the UCLA Loneliness Scale was given to assesss loneliness, and Beck's Hopelessness Scale was given to assess hopelessness. 141 women and 63 men university freshman students completed all assessment instruments. As predicted, those who have considered or attempted suicide were more tolerant and accepting of suicide than nonattempters. Also, as predicted, the contemplators and attempters group scored higher on the loneliness and hopelessness scales and lower on the perceived social support scale. Data failed to support that African Americans and Latino college students scored higher on perceived social support than Whites. In addition, no support was found for the hypothesis that women would report greater suicidal ideation, more acceptance of suicide, less loneliness and hopelessness, and more perceived social support than men. These results were discussed in terms of their implications for assessment and intervention strategies.

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#### INTRODUCTION

This study will examine the association between suicidal contemplators, noncontemplators, and attempters and their attitudes about suicide. In addition, feelings of loneliness, hopelessness, and perceived social support will be studied to see how they are related to suicide contemplation and behavior.

Although the rate of suicide has declined for persons aged 20-24 years, the rate has increased among persons aged 15-19 years by 28.3% and for persons aged 10-14 years by 120% (Morbidity and Mortality Weekly Report [MMWR], 1995a). In addition, for persons aged 20-24 years, the suicide rate declined for all ethnic and gender groups except African American men. For persons aged 15-19 years, the suicide rate increased for all groups except men of races categorized as "other". The rate for African American men increased by 165.3% and for persons aged 10-14 years the rate increased profoundly in all ethnic and gender groups (MMWR).

The suicide rate among college students is estimated to be 50% higher than that of the general population (Bonner and Rich, 1987). Rudd (1989) states that there is reason to believe that suicide among college men and women may be more serious than previously thought. Recent surveys of college students suggest that around 50% of those responding experience some degree of suicidal contemplation (Bonner & Rich, 1988; Rudd, 1989). Mishara (1982) also found a significantly higher suicide rate among college students than that of the same-age, nonstudent population.

Despite the magnitude of the problem, little is known about suicidal behavior among the nonpsychiatric population. The majority of existing data pertaining to suicide

among young people,

has been derived from the study of (1) general mortality statistics; (2) youths who commit or attempt suicide while under psychiatric care; (3) psychological autopsies of consecutive suicides in a given geographical region; or (4) those attempted suicides reaching medical, police or social services attention. (Garrison, 1989, p. 120)

The etiology of suicide in college students needs to be understood in order to promote effective prevention, intervention, and postvention. Understanding suicidal behaviors has been the basis for various types of research. Research has shown that among the contributing factors to suicidal behavior is one's accepting attitude toward suicide (Beck, Kovacs, & Weissman, 1979; Domino, 1991) a lack of social support (Sarason, Levine, Baham & Sarason, 1983; Whatley & Clopton, 1992) feelings of hopelessness (Beck, Steer, Kovacs, & Garrison, 1985; Bonner & Rich, 1987, 1988; Schotte & Clum, 1982) and a sense of loneliness (Bonner & Rich, 1987, 1988, Rich & Bonner, 1987; Trout, 1980).

#### Attitudes About Suicide

Although there are some studies examing attitudes toward suicide, a general scarity of research exists in this area. Since a knowledge of attitudes toward suicide is an important part of education and prevention services further investigation into this area is needed (Domino, 1991). In addition, attitudes toward suicide appear to be of utmost importance to the understanding of suicide and to any preventive process.

Feifel (1969) has called the investigation of attitudes toward death an entryway to

understanding strategies used in coping with pain, crisis, and stress. In addition, he concludes that this investigation extends our comprehension of how death affects the social organization of society. Neuringer (1979) asserted that understanding how an individual perceives suicide is fundamental to explaining why a suicidal decision is made, and Beck, Kovacs, and Weissman (1979) have suggested that suicide risk may be reflected in an individual's attitude toward suicide.

Few studies have attempted to link findings on college students' suicide ideation and behavior with their attitudes about suicide, therefore part of this study will examine the relationship between attitudes about suicide and suicidal behavior.

### Noncontemplators, contemplators, and attempters

In a survey conducted by Marks (1989), young adults and the aged were both found to have a more liberal attitude or more acceptance toward suicide. Younger respondents, ranging in age from 18 to 35, and older adults, aged 60 and over, were more likely to agree with the concept that an individual has the right to take their own life.

Boldt (1982) also looked at different generations and suicide attitudes and reported that today's youth are more accepting of suicide and death than their parents.

Stillion, McDowell, Smith, and McCoy (1986) found support for their hypothesis that the state of mental health relates to attitudes toward suicide. They compared institutionalized 15 to 24 year olds and college students. Suicide attitudes were measured by the Suicide Attitude Vignette Experience Scale (SAVE, Stillion, McDowell, & Shamblin, 1984). Results showed that the institutionalized group agreed more with all reasons for suicide than the non-institutionalized group. Students who score higher on

one measure of inner-directedness (using the Personal Orientation Inventory, Shostrom, 1966) sympathize, empathize, and agree less with all reasons for suicide than students who score lower on the same measure. Some studies have looked at moral attitudes and suicidal behavior (Deluty, 1988; Feifel & Schag, 1980; Ingram & Ellis, 1992; Minear & Brush, 1981). For example, Beck and Morris (1974) measured moral attitudes regarding suicide, depression, hopelessness, and suicidal intent. Those who reported suicide as being never morally wrong had a significantly higher intent score than those who felt suicide was always morally wrong. De Wilde, Kienhorst, Diekstra, and Wolters (1994) investigated hopelessness, social support, and restrictive attitudes toward suicide in high risk and low risk adolescents. Their results showed that the high risk adolescents had a more permissive attitude about suicide, less support and understanding from parents, and more hopelessness than the low risk group. In another study, DeWilde, Kienhorst, Diekstra, and Wolters (1993) compared suicide attempters, depressed, and nondepressed adolescents. They found significant differences in the suicidal group and the nondepressed group. Suicide attempters and the depressed group had a more permissive attitude toward suicide than the normal adolescents. Again, hopelessness and family support was less in the suicidal group. Range and Penton (1994) also found a relationship with attitudes and hopelessness using the Reasons for Living (RFL, Linehan, Goodstein, Nielsen, & Chiles, 1983) scale. College students were given the RFL scale, and the Hopelessness Scale (HS, Beck, Weissman, Lester, & Trexler, 1974). The Moral Objections (against taking one's own life) section of the RFL correlated significantly with hopelessness.

Wellman and Wellman (1988) surveyed over 900 college students about knowledge of the facts about suicide, attitudes and feelings about suicide, and participants' own suicidal contemplation and behaviors, and contact with others who had attempted suicide. Their findings included: 1) as the degree of seriousness of suicidal contemplation increased, the degree of personal contact with someone who had attempted or committed suicide also increased and 2) students reporting more serious suicide contemplation were generally more accepting of suicide than those who have had less serious or no suicide contemplation. In another study, Israeli adolescents were examined as to whether their own suicidal tendencies were in some way related to their attitude about suicide (Stein, Witztum, Brown, DeNour, and Elizur, 1992). They also found that as the suicidal risk increased it was associated with a more positive attitude toward suicide. Canadian college freshman were investigated by Hurteau and Bergeron (1991) in areas of suicidal behavior, family problems, lack of social support, and attitudes of life and death. The students who had attempted suicide had severe family problems, lacked social support and had apparent problems in their attitudes of life and death.

Domino and his colleagues have written many articles about attitudes toward suicide using the Suicide Opinion Questionnaire (SOQ) and a variety of populations have been investigated, including children, adolescents, college students, adults, mental health professionals, nurses, and various cross-cultural comparisons (Domino, 1990; Domino, Gibson, Poling & Westlake, 1980; Domino, MacGregor & Hannah, 1989; Domino, Moore, Westlake, & Gibson, 1982; Domino & Su, 1995; Limbacher & Domino, 1986).

Domino, et al. (1980) explored college student attitudes involving 800 students across the

United States. The findings included that suicide attitudes were closely related to religion, personal values, one's view toward mental illness, and one's self-concept. In addition, 72 percent of the students believed there should be some intervention if someone wished to commit suicide and forty-seven percent see suicide as going against the laws of a higher being. Limbacher and Domino (1986) also used the SOQ with college students. In this group of 649 there were 35 attempters, 131 contemplators and 483 with no history of contemplation or attempts. The results of the survey showed that attempters were more likely than contemplators to believe that those who attempt suicide really wish to die, suicide contemplators and attempters were more accepting of suicide than those with no history of suicidal behavior, and those with no suicidal behavior believed that suicide attempts were manipulative and they showed little acceptance or tolerance of the behavior.

Domino and Leenaars (1989) compared Canadian and United States college students and in another study Domino, MacGregor, and Hannah (1989) compared college students from New Zealand and United States. The Canadians viewed suicide as more acceptable for the infirm, the elderly, and those with incurable diseases. In addition, suicide was viewed as more lethal, in that a person attempting suicide was not likely to be dissuaded by a "friendly ear". The Canadians also perceived suicide as a more normal event than the United States students. The New Zealand sample also tended to believe that an individual has the right to take their own life and that suicide is a cry for help. Although neither group felt suicide was related to mental illness, the New Zealand students perceived a greater relationship between the two samples.

#### Gender Differences

The question of gender differences in suicide attitudes has been investigated by several researchers (Marks, 1989; Overholser, Hemstreet, Spirito, & Vyse, 1989; Wellman & Wellman, 1986; White & Stillion, 1988). Wellman and Wellman conducted two surveys with college students to assess gender differences in attitudes toward suicide. Most men and women recognized that people could be suicidal, did not judge them too harshly, and were receptive to and supportive of suicidal people. However, men more than women, were likely to have more strict attitudes toward suicidal people and were less likely to discuss the subject with them because of the belief that it would precipitate suicide. Men were more likely to deny the increase in adolescent suicide, believing that the media was exaggerating the incidence. The authors emphasized that most men do not have negative attitudes toward suicide, but men are more likely to have negative attitudes than women. Neuringer (1979) also found that women judged to be high suicide risks.

Stillion and collegues (Stillion, McDowell, & May, 1984; Stillion, McDowell, & Shamblin, 1984; Stillion, McDowell, Smith, & McCoy, 1986) have looked at suicide attitudes in adolescents and gender differences using the SAVE. All three studies concluded that adolescent women sympathize more with all reasons for suicide than do adolescent men. They hypothized that mental health is related to attitudes toward suicide. Stein, Wiztum, Brom, DeNour, and Elizur (1992) in their study of adolescents and attitudes toward suicide, also concluded that women demonstrated a significantly more accepting attitude than men.

Gender differences in relation to suicide prevention and awareness programs were investigated by Overholser, Evans, and Spirito (1990). They found adolescent women consistently showed higher levels of knowlegde and less support of common myths about suicide than adolescent men. In contrast to most studies, Limbacher and Domino (1986) also found gender differences using the SOQ. Adolescent men nonattempters were more accepting of suicide than female nonattempters and were more likely than females to believe that suicide is an impulsive behavior.

#### Ethnic Differences

A few studies have looked at ethnic differences and attitudes. Domino and Su (1995) examined Taiwanese-Americans and United States adults and Domino, Niles, and Raj (1993) compared Singapore and Australian university students. Domino and Su found overall that suicide contemplators are more tolerant and accepting of suicide than noncontemplators. On the other hand, Dominos, Niles, and Raj found differences in their two samples. For example, the Sinapore sudents perceived suicide as less acceptable and normal, and believed that suicide was related to religious values and beliefs more than the Australian students. Cruikshanks and Slavich (1994) used the SOQ with college students and found no signifiant differences in ethnicity. However, Marks (1989) reported that non-Whites (mostly African Americans) were more likely than Whites to view suicide as immoral behavior and were significantly more likely than Whites to support the idea that normal people do not contemplate suicide. Domino (1981) examined attitudes using the SOQ with Mexican-Americans and Anglo adolescents. The Mexican American adolescents agreed more often than the Anglo adolescents that there was a relationship

between a lack of religious values and suicide. In addition, the Mexican Americans found suicide less acceptable than Anglos to end incurable diseases. They were also more likely to label suicide attempters as mentally ill and believed that suicide was morally wrong.

In conclusion, attitudes concerning suicide seem to play an important role in suicidal behavior. Therefore, it is important to examine these attitudes and suicidal tendencies in order to understand how they can be potential predictors or indicators of suicidal risk. In addition, the relationship between attitudes about suicide and suicidal behavior can be useful in prevention and awareness programs.

# Social Support

Suicide has become the second leading cause of death in the college-age population (National Center for Health Statistics [NCHS], 1990). One possible explanation for this high rate is a lack of social support resulting from decreased accessibility to the family and weakened ties with longtime friends (Whatley & Clopton, 1992). However, research is limited on the possibility of a direct link between suicidal ideation and a lack of social support.

We most often define social support as the availability or existence of people that we can rely on and who let one know that they care about, value, and love us (Sarason, Levine, Basham and Sarason, 1983). In addition, social support seems to have two basic factors: 1) the perception that there is an adequate number of available others to whom one can turn and 2) a level of satisfaction with the available support (Sarason, et al.)

#### Noncontemplators, contemplators, and attempters

A number of studies have looked at social support in high school and college students. Riggio, Watring, and Throckmorton (1993) found that social skills and social support in 136 undergraduates were positively linked to most of the psychosocial measures (e.g. loneliness, self-esteem, life satisfaction) they tested. This was opposite to their hypothesis that college students who participate in school activities would have higher levels of perceived social support.

Sarason, Levine, Basham and Sarason (1983) examined social support using the Social Support Questionnaire with college students. They found that those with high social support seem to have more positive incidents in their lives, have higher self-esteem, and have a more optimistic view of life than those with low social support.

Several articles have been written about the Multidimensional Scale of Perceived Social Support (MSPSS) (Karzarian & McCabe, 1991; Zimet, Dahlem, Zimet & Farley, 1988; Zimet, Powell, Farley, Werkman, & Berkoff, 1990). Zimet developed the MSPSS (Zimet et al. 1988). First, the scale looks at the subjective perceptions of social support. Secondly, it was designed to assess perceived social support from three areas: family, friends, and significant other. Zimet et al. (1990) extended the findings of Zimet et al. (1988) by using three different sample groups and found the scale to be psychometrically sound.

Some studies have specifically investigated suicide and social support. For example, Whatley and Clopton (1992) hypothesized that college students who have more social support will have less suicide contemplation than those with less social support. In

a study of 305 college students, they found that social support was significantly related to suicidal contemplation. College students were less likely to have thoughts of suicide as their amount of social support increased. Rudd (1993) in a review of other studies of suicide and social support concluded that it is necessary to investigate the specific type of support, as family or friends, and the accessibility of that suport in studying suicide and social support.

D'Attilio, Campbell, Lubold, Jacobson, and Richard (1992) looked at the relationship between the quantity and the quality of perceived social support in 50 adolescents whose age ranged from 16 to 20 years. They found there was a greater risk of suicide when there are fewer social contacts and there is less satisfaction with social support from friends and family members.

In a comparison of 20 serious adolescent suicide attempters and 20 nonattempters, Morano, Cisler, and Lemerond (1993) found support for their hypothesis that there was a relationship between loss, family support, hopelessness, and suicidal behavior in adolescents. Although attempters did not report less social support or less satisfaction with their support, they did report significantly less family support than nonattempters.

De Man, Leduc, and Labreche-Gauthier (1992) investigated 558 Canadian high school students and 150 residents selected randomly from the same city. They reported that suicide ideators most often have less people they can rely on in time of need and are less satisfied with their social support than nonideators. Ideators frequently do not count their parents or siblings among those they feel they can rely on for support.

In a study conducted by Miller, King, Shain, and Naylor (1992) 15 suicidal adolescents, 14 adolescents in a psychiatric control group, and 14 adolescents in a normal control group rated their families on cohesion and adaptation, communication, and parental bonding. The suicidal group rated their families significantly lower on cohesion and higher on rigidity than the other two groups. They found that suicidal behavior may occur when isolation is experienced within an inflexible family system. Both the suicidal and the psychiatric control groups rated their families as having deteriorated parent and adolescent communication, less parental empathy and warmth, and greater parental overprotectiveness than the normal control group. There are some limitations to this study because of the small sample size.

Lester, in his book Why People Kill Themselves? (1983), found that suicidal people are more socially isolated and have worse interpersonal relationships than nonsuicial people. Future research should investigate how suicidal people are more isolated and in what ways their relationships are worse than non-suicidal people.

In a study of 300 high school students, Rubenstein, Heeren, Housman, Rubin, and Stechler (1989) examined suicidal behavior, the family, and peer relationships. It was found that adolescent with families that share mutual interests and emotional support lowered the risk of suicide. At the same time, peer relationships were less satisfactory for suicidal adolescents. They concluded that there is more support by belonging in a social group than having isolated friendships.

Strang and Orlofsky (1990) studied suicide contemplation in college students and asked them about their current involvement with peers and the relationship with their

parents. They found that insecure attachments to parents was more highly correlated with suicide contemplation than to insecure attachment with peers.

#### Gender Differences

Sarason, Shearin, Pierce, and Sarason (1987) compared seven different social support measures in three separate studies and found some gender differences. They concluded there might be a bias toward the types of associations that women are more likely to find supportive. For example, to confide in someone who cares for them is a type of relationship more characteristic for women than for men. In addition, men of college age seem to receive less social support from their family than women of the same age.

In another study, Frydenberg and Lewis (1991) examined the different ways men and women of high school age cope. They found significant gender differences using the Ways of Coping Checklist. Their results show a greater use of giving and receiving social support by women rather than men

In a comparison of men and women Canadian adults, Turner (1994) looked at social support and depression. He found that women reported significantly greater contact with family members and friends, had more confidents, more empathy, and expressed their feelings to a greater degree than men. In contrast to Turner, Vaux (1985) in a survery of the literature, found that women have better social support resources and are much better than men in giving and receiving support. However, the differences Vaux revealed pertain to friends but not family and apply to adolescents and college students but not to adults.

Zimet et al. (1988; 1990) using the MSPSS, have found in their studies that women reported significantly more support from friends and significant others than men. However, there was not a significant difference in gender regarding family support. In addition to the MSPSS they administered the Hopkins Sympton Checklist (Derogatis, Lipman, Rickels, Uhlenhuth & Covi, 1974) and concluded that college women may have more stress than men despite a higher degree of perceived social support.

In other studies (Ashton & Fuehrer, 1993; Coates, 1987; Whatley & Clopton, 1992) it was found that women report receiving and giving more social support than men. Coates concluded that women prefer emotional support with family rather than peers, while men prefer peer or nonfamily members.

In addition to Strang and Orlofsky's (1990) findings on peer and parental realtionships, they found that a secure relationship with parents may be an important factor for a lack of suicidal contemplation in both men and women, but is a more important factor for women.

#### **Ethnic Differences**

Several studies have directly compared support characteristics across ethnic groups (Coates, 1987; Crocker, Luhtanen, Blaine, & Broadnax, 1994; Keefe, Padilla & Carlos, 1979; Raymond, Rhoads, & Raymond, 1980; Vaux, 1985). In a household survey of adult residents, Raymond et al. (1980) found that Latinos and African Americans attributed significantly more importance to family relationships than did Whites. On the other hand, African Americans attribute more importance to other social relationships than

did either Whites or Latinos. The three groups did not differ on satisfaction with family or other social relationships.

In addition to examining gender differences, Vaux (1985) also explored the literature pertaining to ethnicity. He concluded that ethnic differences in levels of social support are complex and vary by age, gender, socioeconomic status, and social roles taken. In a study of adolescents, Cauce, Felner, and Primavera (1982) found that African Americans reported higher degrees of family support than Whites or Latinos. Overall, African American students reported higher levels of support than the other groups in areas of family, peers, and other adults.

Coates (1987) also investigated gender and ethnic differences but looked at

African American adolescents in an age range from 12 to 15 years. It was found that

African American women seem to be more family oriented than other groups reviewed by
the author. The family was also indicated as the only source of support for emotional or
material help.

Latino families were examined by Keefe et al. (1979) in surveys and interviews in three Southern California cities. They found that Latinos turned to their immediate families and extended family network for support while Whites are more likely to seek help from friends, neighbors, and coworkers. Also, Latinos are more likely than Whites to have relatives living in their community, and often this will include more than three generations. Negy and Woods (1992) looked at Latinos and acculturation and found a high level of perceived family support is characteristic of the Latino culture. Family support was found in all generations of Latinos, despite changes in acculturation.

Queralt (1993) examined suicidal risk factors in Latino adolescents. A total of 14 adolescents, 13 to 19 years of age, committed suicide in Miami, Florida between January 1988 and June 1989. According to the author, this was the first study in the United States to explore psychosocial risk factors associated with Latino suicide completion in adolescents. One of the factors investigated was the relationship with the family. It was found that the completers had a poor relationship compared with the control group. A questionnaire was completed by the counselors of the victims and compared to the control group. The results showed that the completers' parents were divorced or separated, the completers' had a history of running away from home, and had feelings of being rejected and unloved, and that the parents were too strict and punishing.

In conclusion, it has been established by a number of studies that social support plays an important role in suicidal contemplation. It has been shown that alienated and isolated individuals are at a significantly higher risk for suicide than those individuals with close family ties and strong social support networks. In addition, it has been established that these factors apply to certain ethnic groups and specifically with women.

It is particularly important to examine college students and their perceived social support because this is a time when they are generally "on their own" unless they seek out a new group. Former friends and family may not be as readily available as they were previously and therefore new networks need to be made.

# Hopelessness

Hopelessness has been described as negative expectations about the future (Beck, Brown, Berchick, Stewart, & Steer, 1990). In addition, Stotland (1969) defines hopelessness as negative anticipation concerning the self and the future. Extensive evidence demonstrates hopelessness to be the best predictor of suicidal behavior (Beck, Steer, Kovacs, & Garrison, 1985; Bonner & Rich, 1991). In addition, hopelessness has been found to predict suicidal contemplation (Bonner & Rich, 1987, 1988; Schotte & Clum, 1982, 1987), suicide attempts (Minkoff, Bergman, & Beck, 1973), and suicide completions (Beck et al., 1985). Hopelessness has been strongly demonstrated to be a component in the risk of suicide.

# Noncontemplators, Contemplators, and Attempters

Dixon, Rumford, Heppner, and Lips (1992) explored different sources of stress to predict hopelessness and suicide ideation in a college population. They surveyed 393 students in their two studies and concluded that together hopelessness and stress are related to suicidal thoughts.

Several studies used the RFL scale along with the HS with high school and college students (Connell & Meyer, 1991; Kirkpatrick-Smith, Rich, Bonner, & Jans, 1991; Range & Penton, 1994; Rich, Kirkpatrick-Smith, Bonner, & Jans, 1992). For example, Connell and Meyer (1991) assessed 205 college students and categorized them into four groups: never suicidal, brief ideation, serious ideation, and parasuicidal. Hopelessness was found to be very low for those who had never considered suicide but increased greatly with more serious suicidal ideation. Kirkpatrick-Smith et al. (1991) had 613 high school students

complete self-report measures of hopelessness, reasons for living, life stress, and others. They hypothesized that eight predictor variables would be significantly correlated with suicidal ideation. The variables included hopelessness, loneliness, depression, life stress, few reasons for living, and alcohol and drug abuse. As predicted, each variable was significantly correlated.

Others, (Holden & Fekken, 1988; Petrie & Chamberlain, 1983; Reynolds, 1991) have also found hopelessness to be signifiantly correlated with suicide ideation. Morano et al. (1993) researched 20 attempters and 20 nonattempters and found the suicide attempters reported more hopelessness in comparison to the nonattempters while controlling for depression. This study was important because it simultaneously examined hopelessness and family support. Morano, et al. also support Beck's (Beck et al., 1990) evidence that hopelessness is a stronger predictor of suicide than depression.

Beck, et al. (1990) hypothesized that hopelessness can be thought of as a "risk factor" (p. 194) and is a characteristic that can be modified. Their study looked at 1, 958 psychiatric outpatients between the years of 1978 and 1985. They concluded that the HS was a strong predictor of suicide potential. Hopelessness was also examined by Schotte and Clum (1982) in a college population. The study looked at 175 students and a number of measures were used including the HS. It was concluded that suicide ideators are more hopeless, more depressed, and have higher levels of negative stress than nonideators.

Strang and Orlofsky (1990) investigated suicide contemplation, parent and peer relationships, locus of control, and hopelessness in college students. They discovered that

moderate to high contemplators showed more hopelessness than both low contemplators and noncontemplators.

#### Gender Differences

Few studies have assessed the relationship between hopelessness and gender and the results of these are mixed. Connell and Meyer (1991) and Whatley and Clopton (1992) report that they found no significant difference in hopelessness between men and women college students. Spirito, et al. (1993) surveyed 41 men and 161 women adolescent suicide attempters and found no differences in hopelessness, depression, or suicidal contemplation. Perhaps gender differences would have occurred if more men had been in the sample. Strang and Orlofsky (1990) examined hopelessness in college students. They also found no significant gender differences in the HS with the 92 men and 99 women they surveyed.

In contrast, Adock, Nagy, and Simpson (1991) gave The National Adolescent Student Survey to 3,803 participants. They found women experienced more hopelessness and sad feelings than men. However, Holden and Fekken (1988) found men to be higher in hopelessness than women. Men reported significantly higher mean scores in the HS. On the other hand, Rich et al. (1992) gave 613 high school students the RFL inventory, the HS, and a number of other measures. Men reported as much hopelessness as females. Ethnic Differences

There is limited research that examines hopelessness and ethnicity. Suicidal contemplation, hopelessness, and depression was investigated in 42 African American and

21 Latino high school students by Lester and Anderson (1992). There were no significant differences between the two groups on hopelessness scores.

Adcock, Nagy, and Simpson (1991) also looked at ethnicity in their study using the National Adolescent Student Health Survey. They concluded that African Americans were more likely to feel sad and hopeless, however Whites were more likely to have feelings of less hope about the future. These results seem identical, however the questions concerning hopelessness were in two categories: 1) if they felt sad and hopeless in the past month and 2) if they felt they had nothing to look forward to in the past month. Other ethnic groups consisted of only 3% of the sample and were not analyzed.

In summary, hopelessness is known to be a major predictor of suicidal behavior. With the growing rate of suicide among the college population, hopelessness is an important clue that should alert others to a suicidal potential. In addition, as mentioned previously, hopelessness is a characteristic that can be altered. There seems to be no support for differences in the relationship of gender and ethnicity with hopelessness.

#### Loneliness

According to Medora and Woodward (1986) loneliness is defined as a response to the lack of a satisfactory positive relationship to people, places, or things. Woodward (1988) also states that adolescence is frequently characterized by alienation, solitude, loneliness, and distress. In addition, lonely people frequently feel worthless, unloved, and incompetent. Trout (1980) defines loneliness "... as a state in which interpersonal contacts

and relationships are disrupted or nonexistent" (p. 10). Trout adds that social isolation and loneliness have been related to suicide contemplation, attempts, and completions.

Non-contemplators. Contemplators, and Attempters

Roscoe and Skomski (1989) investigated the impact of loneliness on university students. Lonely and nonlonely adolescents were compared on a number of variables and statistically significant differences were found. Nonlonely adolescents were discovered to be more aware of available services at their school, belonged to a social or professional group, and sought out others when lonely. The researchers major concern were strategies used by adolescents during times of loneliness.

Woodward and his associates examined a number of populations in rural Nebraska, including adolescents, adults, freshmen and senior high school girls, freshman and senior high school students, and college students (Brange, Meredith, & Woodward, 1993; Medora & Woodward, 1986; Woodward & Kalyan-Masih, 1990). All studies used the Woodward Loneliness Inventory to evaluate loneliness under varied conditions and circumstances (Woodward & Kalyan-Masih, 1990). Medora and Woodward (1986) found a significant relationship between lonelines scores and ease in making friends and in persons who experienced varying degrees of happiness during the past year. There was also a significant difference in loneliness scores and the perceived level of loneliness. Brange, Meredith, and Woodward (1993) examined adolescents and found that depression was most highly correlated with loneliness. In addition, a significant relationship was found between loneliness and self-esteem.

A study by Mahon, Yarcheski, and Yarcheski (1993) examined adolescents and the health consequences of loneliness. Their results indicate that loneliness had a direct effect on psychological distress and an indirect effect on perceived health status. In addition to social support, Riggio, Watring, and Trockmorton (1993) examined loneliness and psychosocial adjustment in college students. They found that possession of social skills was linked to decreased feelings of loneliness, increased self-esteem, and satisfaction with college and life in general.

Trout (1980) reveiwed the literature pertaining to social isolation and suicide and concluded that social isolation and loneliness have been consistently shown to be related to suicide contemplation, attempts, and completions. According to Trout, social isolation and loneliness on a broad scale is a problem that most societies have not acknowledged.

Bonner and Rich (1987, 1988), Kirkpatrick-Smith, Rich, Bonner, and Jans (1991), and Rich and Bonner (1987) all investigated loneliness, hopelessness, RFL, and other measures, with suicidal ideation in college students. Results from Bonner and Rich (1987) indicate that loneliness, along with hopelessness and depression are not independent of one another, but work together to form a negative state of withdrawal from the self and others. Because of feelings of helplessness, the individual may be at risk for increased loneliness and depression, and suicidal ideation may occur. Bonner and Rich (1987, 1988) and Rich and Bonner (1987) found in several studies that loneliness, depression, low reasons for living, life stress, and irrational thinking were important factors in suicidal ideation.

#### Gender Differences

There are conflicting reports concerning gender differences and loneliness. Several studies reported that college men and women were equally lonely (Brage, Meredith, & Woodward, 1993; Maroldo, 1981). Others show evidence that women, especially adolescents, are lonelier than men (Medora & Woodward, 1986; Sundberg, 1988). Still others have found that men are lonelier than women (Koenig, Isaacs, & Schwartz, 1994; Schultz & Moore, 1986).

According to Sundberg (1988), part of the confusion might come from the type of test using to determine loneliness. Men typically have higher scores when asked indirect questions pertaining to loneliness. On the other hand, women admit to being lonely more often than men when using self-report or direct questions. Schultz and Moore (1986) report that men admit to loneliness less than women do because they tend to attribute loneliness to personal failure and weakness.

Brage et al. (1993) looked at high school adolescents and found no significant difference in men and women in the mean score of loneliness. This has contrasted with other studies (Medora & Woodward, 1986; Schultz & Moore, 1986; Sundberg, 1988). A major finding was that loneliness was significantly correlated to depression. In contrast, Medora & Woodward, 1986) found that women were lonelier than men. One explanation was that women are more aware of their feelings and can accept lonelinesss more readily. On the other hand, men may not be able to accept feelings of loneliness.

Sundberg (1988) also concluded that men are significantly more lonely than women. They scored higher in the general category of loneliness and also in four of the

six factors (feelings of being alone or alienated, feelings of lack of ability or control, feelings of self-pity, rejection, or lack of purpose, and feelings experienced during special occasions) of loneliness using the Woodward Loneliness Inventory (Woodward, 1967). Women adolescents were examined, but not compared to males, by Ammaniti, Ercolani, and Tamabelli (1989). Using a self-descriptive personality questionnaire, it was concluded that loneliness is a distressing state of inadequacy and loss.

Studies predominate stating that males are lonelier than females. For example, using the University of California, Los Angeles (UCLA) Loneliness Scale (Russell, Peplau, & Cutrona, 1980), Koenig, Issacs, and Schwartz (1994) found males having a higher score on loneliness than females. They also noted that mildly depressed males were significantly lonelier than mildly depressed females. Consistent with findings from college samples, Stokes and Levin (1986) found that men reported higher levels of loneliness than women in all three of their samples, and two of the samples were significantly different. They discovered that men are more group oriented with friendships, while women develop stronger close social ties. They concluded that it may be the quality of close relationships that show women to be less lonely.

Other studies have found men to be more lonely. Schultz and Moore (1986), looked at college students, Boyrs and Perlman (1985) compared studies using the UCLA Lonelines Scale, Roscoe and Skomski (1989) examined college students attending a rural university, and Rich et al. (1992) looked at high school students and correlated psychosocial measures and suicidal ideation. All concluded that men are lonelier than women.

#### **Ethnic Differences**

Few studies on loneliness have examined ethnicity. Austin (1983) found that in comparing Whites to all others there were significant differences in the UCLA Loneliness subscales in Social and Belonging but not in the Intimate factor. Whites were less likely to report loneliness than non-Whites in this college sample.

Sundberg (1988) looked at White and African American college freshman. The White students were significantly lonelier than the African American students, especially in regard to feelings of self pity, rejection, and lack of purpose than African Americans. This study found that African American freshman were more isolated than the White freshman.

Austin (1983) found that in comparing Whites to all others there were significant differences in the UCLA Loneliness subscales in Social and Belonging but not the Intimate subscale. Whites were less likely to report loneliness than non-Whites in this college sample.

Households surveyed by Page and Cole (1991) compared loneliness and demographic variables. Ethnicity was not found to be a significant factor in loneliness. Simmons, Klopf and Park (1991) compared Korean and American university students living away from home on loneliness. The Koreans were significantly more lonely than the American students. It was concluded that Americans are more independent and more satisfied being away from home than the Koreans.

In summary, it is important to note that many people can cope with loneliness in a positive way. However, it can be a distressing problem for many people. In fact, Medora and Woodward (1986) concluded that adolescents can experience loneliness even when in

the company of close friends. On the other hand, some adolescents may be socially isolated from others for a period of time yet not feel lonely.

The literature suggests that loneliness plays a direct role in suicide contemplation.

Research also indicates that loneliness is a common problem among college undergraduates. Specifically, much has been written concerning gender differences but very little about ethnicity.

#### Suicide Ideation: Women and Men

Research has substantiated that men commit suicide more frequently than women but women attempt suicide more frequently than men (Bingham, Bennison, Openshaw & Adams, 1994; MMWR, 1995a. However, in reviewing suicide contemplation, it is not so clearcut. Some studies have investigated gender differences regarding suicidial contemplation and found no significant differences in women and men (Connell & Meyer, 1991; Wellman & Wellman, 1986, 1988; Whatley & Clopton, 1992). Connell and Meyer (1991) examined college students and found no significant differences between women and men on the Suicidal Behaviors Questionnaire (Linehan & Nielsen, 1981). Suicide ideation and college students were also examined by Strang and Orlofsky (1990). They grouped participants into catagories of no ideation, low, and moderate to high ideation and found that men and women did not differ significantly.

On the other hand, there is support for higher suicidal contemplation in women by a number of studies (Canetto, 1994; De Man, Leduc & Labreche-Gauthier, 1992; Meilman, Pattis, & Kraus-Zeilmann, 1994; Payne & Range, 1995; Simmons & Murphy,

1985). Meilman et al., studied records of a college counseling center during the course of a school year and concluded that the rate of suicide threats among women was more than double than that of the men. In another study, De Man, Leduc and Labreche-Gauthier, evaluated 558 Canadian adolescents and 150 adults. The data revealed that the women seem to be more prone to suicide ideation than the men. Simons and Murphy (1985) also found in their sample of 407 high school students that the adolescent women showed a significantly higher rate of suicide ideation than the men adolescents. According to a national survey of Youth Risk Behavior (MMWR, 1995b) given to several thousand high school students, adolescent women students were significantly more likely than adolescent men students to have considered attempting suicide. Across all ethnic and grade levels (except African American women and 11th grade students) the adolescent women were significantly more likely than adolescent men to have made a suicidal plan. Another study of 900 adolescents, (Rosenstock, 1985) that continued for nine years in a hospital setting, found that a statistically significant number of women had more suicidal ideation than men.

In summary, suicidal contemplation is not an uncommon phenomenon. In order to understand suicide itself, it is important to look at gender differences. This knowledge could provide useful information for suicide prevention and awareness programs.

# The Present Study

The present study examines the association between suicidal contemplators, noncontemplators, and attempters and the differences in their attitudes about suicide. In addition, feelings of loneliness, hopelessness, and perceived social support will be

analyzed to determine if they significantly affect outcomes of suicidal contemplation.

Gender will also be examined in the areas of suicide ideation, attitudes, social support, hopelessness and loneliness, while ethnicity will be examined in the area of social support. While each of these variables has been used individually, no known study has combined all variables to see the relationship between them. The purpose of this study is to see how feelings of loneliness, hopelessness, and perceived social support are related to suicidal contemplation and behavior. Four hypotheses are proposed:

- 1. Those who have considered or attempted suicide will be more tolerant and accepting of suicide than nonattempters as shown in the subscales of the SOQ.
- 2. Contemplators and attempters will score higher on the loneliness and hopelessness scales, and lower on the perceived social support scale than nonattempters.
- African Americans and Latinos will score higher on perceived social support than Whites.
- 4. Women will report greater suicidal ideation, more acceptance of suicide, less loneliness and hopelessness and more perceived social support than men.

#### **METHOD**

## **Participants**

Potential subjects were students enrolled in a suggested seminar course for first time freshman at a southern California university. Two hundred four students, 63 men and 141 women, volunteered to particapte. Their age ranged from 16 to 20 years (mean = 18.049, s.d.=.541) and their ethnic distribution included: Whites, 85 (41.7%); Latinos, 63 (30.9%); Asians, 20 (9.8%); African Americans, 15 (7.4%); Pacific Islanders, 13 (6.4%); Native Americans, 6 (.5%); and others, 1 (.5%). Participants were treated in accordance with the ethical standards set by the American Psychological Association.

## **Materials**

The Suicide Opinion Questionnaire (SOQ) is a 107-item questionnaire (100 attitudinal and factual, and seven demographic questions) developed to assess attitudes toward suicide (Domino, Moore, Westlake and Gibson, 1982). For the present study 36 items pertaining to factual knowledge of suicide were omitted, leaving a total of 64 items scored on eight clinical scales. The omitted items were not part of the subscales. Respondents are asked to give their honest opinion on each item using a five-point Likert-type scale ranging from strongly agree to strongly disagree. The SOQ covers a rather wide range of attitudes of suicide and parasuicide, and includes items as: (item 1) "Most persons who attempt suicide are lonely and depressed"; (item 11) "Those who threaten to commit suicide rarely do so"; and (item 38) "Suicide is normal behavior." In addition to questions about attitudes, there are 10 demographic items.

The test-retest reliability for each of the eight scales is: Moral Evil .75; Cry for Help .86; Religion .82; Impulsivity .76; Mental Illness .83; Normality .77; Right to Die .79; Aggression .75; ( Domino, MacGregor, and Hannah, 1989, p. 354). The SOQ is not included in the Appendix at the request of the author, George Domino.

Multidimensional Scale of Perceived Social Support (MSPSS). The MSPSS (Zimet, Dahlem, Zimet, and Farley, 1988) is a 12-item scale measuring support from three specific areas: family, friends, and significant other. Participants respond using a 7-point Likert-type scale ranging from very strongly disagree to very strongly agree with each item. Items include (item 3); "My family really tries to help me."; (item 12) "I can talk about my problems with my friends"; and (item 1) "There is a special person who is around when I am in need."

Zimet, Powell, Farley, Werkman, and Berkoff (1990) report excellent psychometric properties for the MSPSS. For example, an alpha coefficient of .88 for the total scale has been reported with subscale reliability reported alpha values of .81 to .90 for the Family subscale, from .90 to .94 for the Friends subscale, from .83 to .98 for the Significant Other subscale, and from .84 to .92 for the scale as a whole. In the current sample, the alpha values were similarly high (subscale Family .93; subscale Friends .90, subscale Significant Other .93). Zimet et al. (1988) demonstrated construct validity by showing correlations between the MSPSS subscales and the Anxiety and Depression subscales of the Hopkins Sympton Checklist (HSCL). These correlations ranged from -.13 to -.24. A varied population has been studied using the MSPSS including, college

undergraduates, high school students, women receiving prenatal care, and first year medical students.

Hopelessness Scale (HS). The HS (Beck et al., 1974) is a 20-item true-false inventory that assesses the degree to which a person holds negative expectations about the future. Scores can range from zero to 20, with higher scores indicating a greater degree of hopelessness. Nine of the items are keyed false ("I look forward to the future with hope and enthusiasm") and 11 are keyed true ("I might as well give up because I can't make things better for myself"). Internal consistency reliability of .93 has been reported, along with concurrent validity of .74 with clinical ratings of hopelessness and .60 with other scales of hopelessness (Beck et al.).

University of California at Los Angeles (UCLA) Loneliness Scale Short Form.

(Orignal: Russell, Peplau, and Ferguson, 1978; revised: Russell, Peplau, and Cutrona, 1980; short form: Oshagan and Allen, 1992). The UCLA Loneliness Scale (short form) consists of seven questions that measure general feelings of loneliness due to a lack of interpersonal ties. Respondents indicate their feeling about loneliness on a 4-point scale, ranging from never (1) to often (4). Sample questions from this scale include: (item 5) "No one really knows me well" and (item 6) "I feel isolated from others." Russell et al. (1978) report that this scale is internally consistent (Coefficient alpha = .96), reliable (test-retest = .73), and valid (correlation between self-reported loneliness and scale scores = .79). The short form (Oshagan and Allen) is reported to preserve the general concept of loneliness but is a more focused scale that is highly reliable. The correlation between the revised and short forms is r = .96.

## Procedure

The questionnaires were administered in the six new student seminar classes for freshman at a medium sized university in Southern California. The students were informed that their participation was voluntary and anonymous and there was no penalty if they did not wish to participate. The questionnaires, which included a demographic assessment, (see Appendix E) were distributed by the researcher in class and turned in during the class session. After the questionnaires had been completed by all the participants the data were then analyzed using the Statistical Package for the Social Sciences-Personal Computer (Norusis and SPSS-PC, Inc. 1990).

### RESULTS

In order to test the hypotheses, definitions of considered versus attempted needed to be developed. This was done using three methods. The first method (PROBABILITY) was based on responses to demographic question number 8, "what is the probability that some point in your life you might attempt suicide?" Subjects who responded "never" (n = 124 or 60.8% of the population) were classified as Never. Subjects who responded "less than 10%" (n = 57 or 27.9% of the population) were classified as 10% while subjects who responded "50% chance or greater" (n = 23 or 11.3% of the population) were classified as 50%.

The second method (ATTEMPTED) was based on responses to demographic question number 4, "have you ever *seriously* considered killing yourself?" and question number 5, "have you ever attempted suicide?" Subjects who responded "yes" to question 4 were classified as having Considered (n = 44 or 21.6% of the population). Subjects who responded "yes" to question 5 were classified as having Attempted (n = 12 or 5.9% of the population), while subjects who responded "neither" to both questions 4 and 5 were classified as Neither (n = 148 or 72.5% of the population).

The third method (CONSIDERED) was based on responses to demographic question number 4, "have you ever *seriously* considered killing yourself?" Subjects who responded yes (n = 56, 27.5%) of the population were classified as Yes. Subjects who responded no (n = 148, 72.5%) of the population were classified as No.

## Testing the Tolerance and Acceptance of Suicide

To assess the hypothesis that those who have considered or attempted suicide will be more tolerant and accepting of suicide than nonattempters, separate MANOVA's, using the three grouping methods defined above, were performed.

The first MANOVA, using PROBABILITY as the grouping factor, over the eight attitude subscales, was significant (Hotellings T<sup>2</sup> = .4061, F ( 16, 326), p = .0001) indicating that those who had never considered, had 10% chance, or had 50% or greater chance differed on the subscales of the SOQ. Follow-up one-way ANOVA's are shown in Table 1. The only differences were on the right to die, normality, and moral evil subscales. Post hoc comparison using the Tukey HSD method at p = .05 revealed that subjects in the Never group believed that suicide is a more abnormal act than subjects in both the 10% and the 50% groups. In addition, subjects in the 10% group believed suicide was more abnormal than subjects in the 50% group. Subjects in the 50% group believed more than subjects in the 10% and the Never group that suicide is a morally wrong act. Also, subjects in the 10% group believed suicide was less of a morally wrong act than subjects in the 50% group. Subjects in the Never group believed more than subjects in the 50% group that people do not have the right to take their own life.

The second MANOVA, using ATTEMPTED as the grouping factor over the 8 attitude subscales, was significant (Hotellings  $T^2$  = .21625, F (16,326) = 2.20306, p = .005) indicating that those who had considered, attempted, or never attempted or considered suicide differed on the on the subscales of the SOQ. Follow-up one-way ANOVA's are shown in Table 2. The only differences were on the normality subscale.

Table 1

Differences among the Never Group, 10% Group, and 50% or more Group on the subscales of the SOO

Never Group		10%	10% Group		50% or more Group				
Variable	М	SD	M	SD	M	SD	SS	F	Sig of F
Mentally Ill	35.75	5.32	36.00	4.76	36.55	5.76	11.13	.20	.82
Cry for Help	29.66	4.22	29.41	3.13	30.80	3.53	28.12	.94	.39
Right to Die	30.30	5.64	28.77	5.94	25.60	5.79	393.38	5.97	.001
Religion	21.56	4.53	22.06	4.71	24.25	4.72	122.27	2.23	.06
Impulsivity	20.27	2.77	20.27	2.87	20.10	3.84	.53	.03	.97
Normality	24.70	4.27	21.12	3.60	18.90	4.78	813.55	23.50	.001
Aggression	17.18	3.54	17.60	3.08	18.50	3.55	30.96	1.32	.27
Moral Evil	12.24	2.78	12.98	2.24	15.05	3.24	136.31	9.38	.001

Table 2

Differences among Consider, Attempt, and Neither on the subscales of the SOQ

	CONS	SIDER	ATTEN	<b>ДРТ</b>	NEITH	ER			
Variable	M	SD	M	SD	M	SD	SS	T	Sig of F
Mentally Ill	35.38	5.79	36.00	7.23	36.07	4.88	14.12	.26	.77
Cry for Help	29.44	3.38	31.56	4.48	29.68	3.97	33.65	1.12	.33
Right to Die	27.97	6.30	28.56	6.02	29.82	5.74	107.00	1.54	.22
Religion	21.67	4.95	24.00	5.81	21.97	4.48	40.45	.93	.40
Impulsivity	19.87	3.13	20.22	3.96	20.37	2.78	7.49	.44	.65
Normality	20.10	4.12	20.33	5.55	24.16	4.31	560,12	14.90	.001
Aggression	17.13	2.97	18.00	4.64	17.51	3.48	7.18	.30	.74
Moral Evil	13.36	3.00	13.56	3.84	12.52	2.67	26.71	1.69	.19

Post hoc comparisons using the Tukey HSD method at p = .05 revealed that the Neither group believed that suicide is a more abnormal act than subjects in both the Attempted and Considered groups.

The third MANOVA, using CONSIDERED as the grouping factor over the eight subscales, was significant (Hotellings  $T^2$  = .19315, F (8,165) = 3.98381, p = .0001) indicating that the two groups differed on the subscales of the SOQ. Follow-up one-way ANOVA's are shown in Table 3. Subjects responding that they had considered suicide, scored significantly lower than subjects responding that they had not considered, in the normality subscale. This means that those who seriously considered suicide found suicide to be a more normal act than those responding that had not considered suicide.

In summary, regardless of how the groups were constructed, subjects reporting never having considered or attempted suicide saw suicide as less normal than subjects who had considered or attempted. Other differences on the eight scales were apparent only when the probability of attempting suicide some time in the subject's life was used as the grouping factor.

## Testing Differences in Social Support, Loneliness, and Hopelessness

To assess the second hypothesis, that contemplators and attempters will score higher on the loneliness and hopelessness scales, and lower on the social support scale than nonattempters the three methods of defining groups described above were used again. The first MANOVA using PROBABILITY as the grouping factor was significant (Hotellings  $T^2 = .44050$ , F (10,348) = 7.66465, p= .001) indicating that those who had never considered, those who had a 10% chance, or those who had a 50% or greater

Table 3

<u>Differences among the No Group and the Yes Group on the subscales of the SOQ</u>

N.	No Gr	oup `	Yes Gro	up				
Variable	M	SD	M	SD	SS	F	Sig of F	
Mentally III	35.50	6.00	36.07	4.88	11.35	.42	.52	
Cry for Help	29.83	3.65	29.68	3.97	.79	.05	.82	
Right to Die	28.08	6.20	29.82	5.74	104.53	3.03	.08	
Religion	22.10	5.14	21.97	4.48	.64	.03	.86	
Impulsivity	19.94	3.26	20.37	2.78	6.59	.77	.38	
Normality	20.15	4.35	24.16	4.31	559.73	29.95	.001	
Aggression	17.29	3.30	17.51	3.48	1.63	.14	.71	
Moral Evil	13.40	3.13	12.52	2.67	26.43	3.36	.07	

chance differed on the subscales of the MSPSS, and the loneliness and hopelessness scales. Follow-up one-way ANOVA's are shown in Table 4. There were significant differences in all scales. Post hoc comparison using the Tukey method at p = .05 revealed that for the three positive variables (family support, friend support, and significant other support), the Never group always reported more support than the 10% group, who reported more than the 50% group. For the two negative variables (loneliness and hopelessness), the Never group always reported less loneliness and hopelessness than the 10% group, who reported less than the 50% group.

The second MANOVA, using ATTEMPTED as the grouping factor, was significant (Hotellings T² = .26973, F (10,348) = 4.69335, p = .0001) indicating that those in the Considered, Attempted, or Neither groups differed on the MPSS subscales, and the loneliness and hopelessness scales. Follow-up one-way ANOVA'S are shown on Table 5. There were differences on all scales except the friend support subscale. Post hoc comparison using the Tukey HSD method at p = .05 revealed that subjects in the Neither group had more family support than subjects in the Considered group, with no difference between subjects in the Attempted and Considered groups. Subjects in the Attempted group reported the highest amount of support from significant others followed closely by subjects in the Neither group. Both of these groups differed significantly from subjects in 39 the Considered group, with thesefrom subjects reporting significantly less support significant others. Subjects in the Considered group reported significantly more loneliness and significantly more hopelessness than subjects in the Neither group.

Table 4

Differences among the Never Group, 10% Group, and 50% or more Group on the MSPSS, Loneliness, and Hopelessness Scales

	Never Group		10%	10% Group		50% or more Group					
Variable	M	SD	M	SD	M	SD	SS	F	Sig of F		
Family	5.73	1.32	4.96	1.36	4.65	1.59	32.81	8.88	.001		
Friend	5.17	1.16	4.76	.92	4.50	1.19	10.98	4.52	.012		
Significant Other	6.21	1.09	5.78	1.08	5.55	1.45	11.36	4.46	.013		
Loneliness	15.46	3.12	17.09	3.40	19.95	2.76	375.11	18.71	.001		
Hopelessness	1.85	2.08	3.04	3.76	7.50	5.41	546.14	28.23	.001		

Table 5

<u>Differences among Consider, Attempt, and Neither on the MSPSS, Loneliness, and Hopelessness Scales</u>

	CONS	CONSIDER		ATTEMPT		NEITHER				
Variable	M	SD	M	SD	M	SD	SS	F	Sig of F	
Family	4.56	1.33	5.14	1.49	5.70	1.33	41.86	11.64	.001	
Friend	4.94	.97	5.20	1.17	4.98	1.17	.56	.22	.80	
Significant Other	5.54	1.12	6.52	.89	6.13	1.14	13.89	5.51	.005	
Loneliness	18.02	3.04	17.55	3.47	15.77	3.41	176.79	7.94	.001	
Hopelessne	ss 4.50	4.85	4.27	4.56	2.12	2.65	205.54	8.88	.001	

The third MANOVA using CONSIDERED as the grouping factor was significant (Hotellings T<sup>2</sup> = .22427, F (5,176) = 7.89413, p = .0001) indicating that those having seriously considered suicide differed from those not having seriously considered in the three support subscales, and the loneliness and hopelessness scales. Follow-up one-way ANOVA's, shown in Table 6, revealed significant differences in the MSPSS subscales of family and significant other, and loneliness, and hopelessness scales. Those who had not seriously considered suicide reported significantly more family and significant other support and significantly lower levels of loneliness and hopelessness than those who had considered suicide.

In summary, there were differences in the three methods of grouping (Never, Attempted, and Considered) in all of the support subscales. Also, subjects reporting having never considered or attempted suicide had less loneliness and hopelessness than those reporting that they had considered suicide.

## **Ethnic Differences**

To assess the third hypothesis, that African Americans and Latinos will score higher on perceived social support than Whites, the participants were first grouped into White, African American, Latino, and Asian based on their responses to the demographic question regarding ethnicity. Then, a MANOVA over the eight attitude subscales was performed, which was not significant (Hotellings  $T^2 = .25617$ , F (24,425) = 1.51209, p = .058). Next, a MANOVA over the support subscales, loneliness, and hopelessness scales using ethnicity as a grouping factor was also performed, and was also not significant (Hotellings  $T^2 = .06151$ , F (15,467) = .63834, p = .844).

Table 6

Differences among the No Group and the Yes Group on the MSPSS, Loneliness, and Hopelessness Scales

	No Gi	oup Y	es Gro	up			
Variable	M	SD	M	SD	SS	F	Sig of F
Family	4.68	1.37	5.70	1.33	38.94	21.59	.001
Friend	5.00	1.01	4.98	1.17	.01	.00	.95
Significant Other	5.75	1.14	6.13	1.14	5.50	4.23	.04
Loneliness	17.92	3.11	15.77	3.42	174.80	15.77	.001
Hopelessness	4.45	4.75	2.12	2.65	205.09	17.81	.001

Because the literature supports that Latinos have a high level of social support (Keefe, et al., 1979; Negy & Woods, 1992; Queralt, 1993) and because of the number of Latino subjects was high, relative to the number of subjects from other ethnic groups, an additional MANOVA, using only White (n = 85) and Latino (n = 63) was performed. A MANOVA over the eight attitude subscales was shown to be not significant (Hotellings  $T^2 = .07967$ , F (8,117) = 1.16510, p = .326). Similarly, a MANOVA over the support subscales and the loneliness and hopelessness scales using White versus Latino as the grouping factor was also not significant (Hotellings  $T^2 = .05373$ , F (5,127) = 1.36462, p = .242).

## Gender Differences

The fourth hypothesis, that women will report greater suicidal ideation, and more acceptance of suicide, was tested using a MANOVA over the eight attitute subscales; this MANOVA was not significant (Hotellings  $T^2$ = .08198, F (8,165) = 1.69075, p = .104). Similarly, a MANOVA over the support subscales, loneliness, and hopelessness scales was also performed and was not significant (Hotellings  $T^2$ = .02268, F (5,176) = .79839, p = .552).

Using the three previous methods of PROBABILITY, ATTEMPTED, and CONSIDERED chi-squares were performed to see if there were differences between men and women in the various categories of suicidal tendencies. No gender differences were found for PROBABILITY ( $\chi^2 = 2.29$ , df = 2, p = .318), ATTEMPTED ( $\chi^2 = 2.86$ , df = 2, p = .239) or for CONSIDERED ( $\chi^2 = 2.13$ , df = 1, p = .145). In other words, the

gender differences often reported by others (e.g., Canetto, 1994; De Man, Leduc, & Labreche-Gauthier, 1992; Meilman, Pattis, Kraus-Zeilmann, 1994) were not obtained in this sample.

## DISCUSSION

Partial support was found for the first hypothesis, that those who have considered or attempted suicide will be more tolerant and accepting of suicide than nonattempters as shown in the Right to Die and Normality subcales of the SOQ. These two subscales are more indicative of acceptance and tolerance of suicide. The higher the score on the Right to Die subscale means the greater belief that people have the right to take their own life. The higher the score on the Normality scale means the greater belief that suicide is normal behavior. As expected, the differences on subscale Normality were found regardless of the grouping methods used, however, only the group that examined suicidal tendencies about the future indicated differences on the Right to Die and Moral Evil subscales.

The higher the score on the Moral Evil subscale means a greater belief that suicide is morally wrong. Since those that responded with a high score were those that showed suicidal tendencies about the future, these results seem logically inconsistent. However, data support this finding. For example, Beck and Morris (1974) found that those who reported higher suicidal intent viewed suicide as always morally wrong. In addition Sanders (1990) in examining social work graduate students using the SOQ found that those in the high probability group were more likely to believe that suicide is morally wrong than those in the low probability group. It is possible that the moral issue of suicide as being wrong has acted as a buffer and kept those in the high probability group from actually committing suicide. Therefore, in dealing with those with a high probability of suicide, knowing that they might believe it to be a morally wrong act, it may be useful to reinforce issues of personal values, and a person's self-concept and self-worth.

These results may indicate that looking at future predictions of suicidal behavior may be of more significance than retrospective thoughts about suicide. This could have important implications for preventive measures in that it might be more significant to look toward the future rather than at past behaviors or thoughts. For instance, one goal of suicide prevention or awareness programs is to target those at high risk by looking at previous suicidal behavior. As stated previously, it may be more important to look at the current feelings and expected thoughts and actions concerning suicide.

These findings are partially consistent with the data from other studies, which support that contemplators and attempters are more accepting and tolerant of suicidal behaviors than nonattempters (De Wilde, Kienhorst, Diekstra, & Wolters, 1993, 1994; Limbacher & Domino, 1986; Wellman & Wellman, 1988). De Wilde et al. (1993) also found that suicide contemplators and attempters had a more permissive attitude toward suicide and less of a moral conviction than nonattempters. In addition, Domino and Su (1995) found that participants in their study tended to agree that people have a right to die, which was not consistent with the findings in the present study.

A major implication of this finding lies in the area of suicide prevention. If having more accepting attitudes toward suicide contributes to an increased possibility of attempting suicide, then prevention efforts need to be developed with this knowledge.

This implication is valuable if attitudes toward suicide influence the choice to attempt suicide. If attitudes of acceptance develop after the suicide attempt then these implications are less important. However, it is possible that by influencing attitudes we may also be able to influence behavior. In this study attitudes were found to be associated

with self-reported thoughts and actions about suicide, even though it is not possible to identify which precedes the other.

The second hypothesis, that contemplators and attempters will score higher on the loneliness and hopelessness scales and lower on the social support scale was supported. The results of this study clearly indicate that individuals who experience high levels of social support and low levels of loneliness and hopelessness have less suicidal contemplation than those with low social support and high levels of loneliness and hopelessness. Since those with high probability or serious contemplation of suicide had less family support than noncontemplators a possible explanation may be that those families of high risk adolescents were less caring, less helpful, and less emotional and physically supportive. It is important to note that the meaning of "family" may be different according to the age of the participant. Family may be the family of origin or the current family. In addition, the term "significant other" may be taken a number of different ways. For example, it may mean a girl or boy friend, spouse, close family friend, etc. Clarification may be necessary of these terms. Also, perceived support from family may be thought as differently from support by a friend or significant other. One explanation may be that perceived family support is more stable over time while support from friends and significant others may be more variable. The creation and evaluation of family support systems needs careful consideration. Positive parental involvement would be beneficial if parents can be convinced of this need and trained to help their children. In the case that some parents may not be able to participate, alternate adults such as a neighbor, extended family member, etc. may be solicited.

Loneliness and hopelessness are not necessarily independent of one another, but combine to form a state of withdrawal from others. In this sample of young college freshman, entrance into college may have meant a separation from family and friends. Isolation and feelings of loneliness and hopelessness may be common problems and interfere with the ability to establish stable and satisfying relationships. It is important then for those working with young people to be aware of these potential problem areas. College support groups for new students would be a way to help students feel less lonely and hopeless in a new and often lonely and intimidating surrounding. However, when an individual has a problem in coping, he or she must be able to see that other people are genuinely concerned and relating to them in a meaningful way. An important role for the helping person or support group would be to involve family and friends who might be hesitant to be involved. While family ties are important to adolescents, peer relations take on an increasingly influential role in their lives. Peers can become a positive force as peer role models or as peer counselors and older peers, in particular, can be positive role models. However, peer acceptance of a program is essential. It may not be possible to reach all students in a support group, but efforts can be made through residence halls, fraternities and sororities, clubs and interest groups on campus to provide social networks.

Often feelings of hopelessness and loneliness are felt because one does not recognize that others are also experiencing these same feelings and that these are normal events. Support groups would enable students to become acquainted and develop friendships on campus. Although residence halls have the greatest possibility, efforts must also be directed to the commuting student. Tutoring and peer groups developed around

academic work would be another option for students to be in a support network.

The first group examined was based on the probability of attempting suicide in the future. Those that never thought they would attempt suicide reported more social support in the areas of family, friends, and significant other. In addition, this group reported to be less lonely and less hopeless than those that had a higher chance of suicide. This finding was consistent with the literature that supports that noncontemplators will have more social support (D'Attilio et al, 1992; Whatley & Clopton, 1992) less loneliness (Bonner & Rich, 1987, 1988; Trout, 1980) and less hopelessness (Connell & Meyer, 1991; Kirkpatrick-Smith et al., 1991).

The second group was based on whether participants have ever attempted suicide. The group that had neither considered or attempted suicide reported they had more family support but interestingly, the group that had attempted suicide reported more significant other support than the other two groups. A possible interpretation of this finding is that those who have attempted suicide have received more attention and support from significant others since their suicide attempt. This raises the question of whether more support was given as a result of the suicidal behavior or as the result of a "cry for help" before any suicidal behavior took place. There was no difference between groups in the friend support. One possible explanation may be that the terms friend and significant other were not clear in their definition. Another explanation may be that since this questionnaire was given early in the fall quarter to new freshman, possibly their circle of friends had changed since they started college and new friendships were not fully established in a supportive way. This is an important finding with preventive implications,

as friendships may not act as a buffer for those with suicidal tendencies and may not be as important in preventing suicide as family or significant other support.

Friendship in adolescents may not be emotionally supportive, but rather a belonging to a social network of friends, rather than isolated supportive relationships. This may explain the lack of importance of friendship in perceived social support. If friendship is not as important a factor in preventing suicide in adolescents it would be more important to look at family and significant other relationships when dealing with suicidal adolescents or in preventive measures.

The third group examined was based on whether participants had ever considered suicide. As expected, those who had not seriously considered suicide reported they had more family and significant other support than the other groups, however once again, there was no difference in the friends support. Those who had not considered suicide reported lower levels of loneliness and hopelessness than the other groups as was anticipated.

The data from the present study failed to support the hypothesis that African Americans and Latino college students will score higher on perceived social support than Whites. These findings did not support the conclusions obtained by Negy and Woods (1992) and Raymond et al. (1980). One explanation for this result may be due to the population studied. Since prior studies have used community samples, they may have had different results (Keefe, Padilla, Carlos, 1979; Raymond, 1980). It may be possible that a more varied population would have brought the expected results. Also, young African American and Latino college students in this study may be more acculturated than those

in other studies that supported a difference with Whites. Because of high acculturation they may have different support systems than others in the same ethnic group. Further research using participants with a wider range of acculturation levels may find more of a difference between Latinos, African Americans and Whites. In addition, if a larger sample size of African American and Latino students had been available, the results may have been different. These results suggest the need for more cross-cultural research in the area of social support and ethnicity to determine cultural differences in this area.

The importance of culture differences will certainly increase as the proportion of African American, Latino, and Asian American youth increases in this country.

Assessment and prevention programs should adopt the principles of cultural accommodation in order to help preserve the original culture. This approach to program development requires that local cultural influences be integrated into more generic objectives and methods. Differences within groups must be understood in order to reach as many people as possible.

No support was found for the hypothesis that women will report greater suicidal ideation, more acceptance of suicide, less loneliness and hopelessness, and more perceived social support than men. These results are inconsistent with the view that women have a higher rate of suicidal risk and view death more positively than men (Neuringer, 1979). Others (Canetto, 1994; Stein et al., 1992; Stillion et al., 1986) concluded that women are more accepting of suicide than men. Both loneliness and hopelessness had conflicting support in the literature (Adock et al., 1991; Sundberg, 1988). However, women reported

that they have more social support than men (Ashton & Fuehrer, 1993; Whatley & Clopton, 1992).

In addition, no systematic relationship was found between gender and in what group participants were categorized. The grouping methods were not a factor in finding differences in suicidal tendencies and gender. Implications may be that today's youth may be more androgynous in nature and differences are less than they were when previous studies were done. This again would have implications for preventive work in suicide and dealing with adolescents. Perhaps it may be more important to focus on the area of suicide attitudes and tendencies, feelings of loneliness and hopelessness and perceived social support rather than gender issues.

## **Limitations and Conclusions**

It is important to identify some potential limitations to these findings. Since participants were limited to college students, these results may not be representative of all older adolescents. In addition, self report questionnaires, although useful and widely used, are not always the most reliable source of information. Thus, future research is necessary to understand the scope of the association between suicidal contemplators, noncontemplators, and attempters and their attitudes about suicide. Also, additional research is needed to help clarify the relationship between suicide, loneliness, hopelessness, and perceived social support with different populations of adolescents. However, this study made at least one advance over previous research, in that the relationships between these variables were all examined in the same study. Finally, to substantiate and extend the findings of this research, future studies might focus on specific

population groups, such as clinical versus nonclinical, college students versus non-college students, and larger samples of ethnic and gender diversity.

In conclusion, the present study was designed to assess the association between noncontemplators, contemplators, and attempters of suicide. In addition, feelings of loneliness, hopelessness, and perceived social support were examined. Attitudes were found to be significantly associated with suicidal tendencies. Also, loneliness, hopelessness and perceived social support were found to be related with suicidal contemplation.

A goal of this study has been to increase the knowledge base of adolescent suicide by furthering understanding of the relationship between adolescents' attitudes toward suicide and their personal background of suicidal behavior. This will eventually support the development of assessing adolescents and prevention methods. The findings of this study provide implications for those working with adolescents in prevention and awareness programs concerning suicide. These results suggest that some changes in assessment and intervention techniques with suicidal individuals are needed. Further study is required to evaluate the importance of these findings to understand how attitudes toward suicide and feelings of loneliness, hopelessness and a lack of perceived social support can serve as potential predictors of increased suicidal risk.

### APPENDIX A

### **Informed Consent Form**

The purpose of this study is to look at college students attitudes about suicide and their feelings of hopelessness, loneliness, and social support. There are no serious risks involved in answering this questionnaire, however, some questions might upset or disturb you. Please answer the questions as honestly as you can. There are no right or wrong answers. It should take approximately 30-40 minutes to complete the questions.

The information you will be giving will be totally anonymous. At no time will your participation or your identity ever be revealed. The information given will be reported in group format only. PLEASE TEAR OFF THIS SHEET BEFORE YOU TURN IN YOUR COMPLETED QUESTIONNAIRE.

I have read the above and understand that all information I provide will be kept confidential and at no time will my name be give or associated with any of the results. I also understand that I can drop out at any time without penalty.

If I feel that I need to talk with someone after or during the questionnaire I will let my professor know. In addition, I will be given hot line phone numbers and counseling information in case I need to talk to someone at a later time.

I have read the above and give my consent for participation.

Print name					2
Sign name					
Date					i. Na
For questions concernin	g this study	you may ca	1:		
Dr. Elizabeth Klonoff, C	CSU, San Be	rnardino (9	09) 880-55	67 or	
Carole Dockstader, Beh	avioral Healt	th Institute,	CSU, San	Bernarding	)
	(leave	message at	(909) 880	-5567)	

## APPENDIX B

## Multidimensional Scale of Perceived Social Support

There are no right or wrong answers to these questions. Please give the answers that are true for you. Use the following: 1=very strongly disagree 2=strongly disagree 3=disagree 4=undecided 5=agree 6=strongly agree 7=very strongly agree.

Circle your answer: very strongly disagree very strongly agree

There is a special person around when     I am in need.	1	2	3	4	5	6	7
There is a special person with whom I can share my joys and sorrows.	1.	2	3	4	<b>5</b>	6	7
3. My family really tries to help me.	1.	2	<b>.3</b>	4	5	6	7
I get the emotional help and support I need from my family.	1	2	3	4	5	6	7
5. I have a special person who is a real source of comfort to me.		2	3	4	5	6	7 7
6. My friends really try to help me.	1	2	3	4	<b>5</b>	6	7
7. I can count on my friends when things go wrong.	1	2	3	4	5	6	7
8. I can talk about my problems with my family.	1	2	<b>3</b>	4	5	6	7
I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
10. There is a special person in my life who cares about my feelings.	1	2	3	4	<b>5</b>	6	7
11. My family is willing to help me make decisions.	1	2	3	4	5	6	7
12. I can talk about my problems with my friends.	1	2	3	4	5	6	7

## APPENDIX C

# Hopelessness Scale

# Circle true or false:

1.	I look forward to the future with hope and enthusiasm.	True	False
2.	I might as well give up because I cannot make things better for myself.	True	False
3.	When things are going badly, I am helped by knowing They cannot stay that way forever.	True	False
4.	I cannot imagine what my life will be like in 10 years.	True	False
5.	I have enough time to accomplish the things I most want to do.	True	False
6.	In the future, I expect to succeed in what concerns me most.	True	False
7.	My future seems dark to me.	True	False
8.	I expect to get more of the good things in life than the average person.	True	False
9.	I just don't get the breaks, and there is no reason to believe I will in the future.	True	False
10	. My past experiences prepared me well for my future.	True	False
11	. All I can see ahead of me is unpleasantness rather than pleasantness.	True	False
12	I don't expect to get what I really want.	True	False
13	When I look ahead to the future, I expect that I will be happier than I am now.	True	False
14	Things just won't work out the way I want them to.	True	False
15	I have great faith in the future.	True	False
16	I never get what I want so it's foolish to want anything.	True	False

17. It is very unlikely that I will get an real satisfaction in the future.	True	False
18. The future seems vague and uncertain to me.	True	False
19. I can look forward to more good times than bad times.	True	False
20. There is no use in really trying to get something I want because I probably won't get it.	True	False

## APPENDIX D

## Loneliness Scale Short Form

Indicate how often you feel the way described in each of the following statements. Circle one number for each.

1. I feel in tune with the people around me.	Never	Rarely 2	Sometime 3	s Often
2. There is no one I can turn to.	1	2	3	4
3. I feel left out.	1	2	3	4
4. My social relationships are superficial.	1	2	3	4
5. No one really knows me well.	1	2	3	4
6. I feel isolated from others.	1	2	3	4
7. People are around me but not with me.	1	2	3	4

## APPENDIX E

# Demographic Questionnaire

Pl	ease check the correct box:			
1.	Are you: ☐ Male ☐ Female	e		
2.	How old are you?			
<b>3</b> .	Please check your ethnic group:  Black/African American Latino Asian	□ White □ Native Ame □ Pacific Islar		☐ Other
4.	Have you ever seriously consider	red killing yours	elf?	□ Yes □ No
5.	Have you ever attempted suicide	?		□ Yes □ No
6.	Have you personally known some	eone who comn	nitted suicide?	□ Yes □ No
7.	If you said yes to the above ques	tion, was the pe	rson: (check all	that apply)
	☐ a member of your immedia☐ a relative (e.g. cousin)☐ a close friend☐ an acquaintance	ate family ( e.g.	parent, sibling)	
8.	What is the probability that some	point in your li	fe you might at	tempt suicide?
	□ zero □ less than 10% □ 50-50 □ somewhat probable □ highly probable			
9.	Do you currently live (check all t	hat apply):		
	In the dorm? 🔲 Yes	□ No	With friends?	□Yes □ No
	On your own? ☐ Yes (that is, alone)	□No	With spouse o	r significant other? ☐ Yes ☐ No

	With both parents? ☐ Yes ☐ N	o				
	With one parent? ☐ Yes ☐ N	o				
10.	Do you have any brothers? ☐ Yes	□ No	If yes	, how mar	ıy?	
	Do you have any sisters?	□ No	If yes	s, how mar	ny?	
	In answering a questionnaire like this, be able or wish to be fully honest. In l					
☐ a	ccept them as fully honest	□ pro	bably d	lisregard tl	nem	
☐ a	ccept them but with some reservation	☐ dis	regard t	them as no	t true	

### APPENDIX F

## Subject Debriefing Form

Thank you for participating in this study. As stated in the informed consent form, our goal is to look at your attitudes about suicide, feelings of hopelessness, loneliness, and social support. It is hoped that the results of this study will help gain an increased understanding of those areas.

For questions, concern, or comments concerning this study, you may call: Dr. Elizabeth Klonoff, CSU, San Bernardino (909) 880-5567 or Carole Dockstader, leave message at the Behavioral Health Institute, CSU, San Bernardino (909) 880-5567.

### **COUNSELING RESOURCES**

CSUSB Counseling Center provides free counseling to students
PS 227 (Physical Science Bldg.) Room 227
909 880-5040 - 8:00 a.m. to 4:30 p.m. Monday through Friday

County Crisis/Referral Line (8:00 a.m. to 5:00 p.m.) 909 387-7222

Redlands Crisis Hotline 909 886-4889

Riverside Suicide Prevention (24 hours) 909 880-5345

Suicide Crisis Intervention (San Bernardino - 24 hours) 909 886-4889

Victor Valley Hotline (24 hours) 619 240-8255

Humanistic Foundation - Long Beach (6:30 a.m. to 10:30 p.m.) 1-800-333-4444

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