LIFE EVENTS, DEPRESSION, SOCIAL SUPPORT SYSTEMS, REASONS FOR LIVING AND SUICIDE PROBABILITY AMONG UNIVERSITY STUDENTS

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ABSTRACT

LIFE EVENTS, DEPRESSION, SOCIAL SUPPORT SYSTEMS, REASONS FOR LIVING AND SUICIDE PROBABILITY AMONG UNIVERSITY STUDENTS

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The purpose of this study was to investigate the relationship of life events, depression, social support and reasons for living to the level of suicide probability among university students. The aim was to find the best predictor of suicide probability, among these variables, for university students. The participants of the study were 401 university students from Bilkent University and Middle East Technical University. The data were gathered by administering seven instruments; Life Experience Survey, Multidimensional Scale of Perceived Social Support, Perceived Social Support from Family and Friends, Suicide Probability Scale, Reasons For Living Inventory, Beck Depression Inventory and the information questionnaire of demographic characteristics of the respondents.

Multiple Regression was used to analyze the data. Findings indicated that the best predictor of suicide probability was the depression score, for all the subscales of Suicide Probability Scale. Other important predictors were, support from friends, support received from family and reasons for living. The results were discussed within the context of the relevant literature.

Keywords: Suicide Probability, Life Events, Depression, Social Support, University Students.

ÖZ

ÜNİVERSİTE ÖĞRENCİLERİNDE YAŞAM OLAYLARI, DEPRESYON, SOSYAL DESTEK SİSTEMLERİ, YAŞAMA NEDENLERİ VE İNTİHAR OLASILIĞI

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Bu araştırmanın amacı üniversite öğrencilerinde yaşam olayları, depresyon, sosyal destek sistemleri ve yaşama nedenleri ilişkisini intihar olasılığı düzeyinde incelemektir. Amaç, üniversite öğrencileri için bu değişkenler arasında intihar olasılığını en iyi yordayan değişkeni bulmaktır. Araştırma Bilkent üniversitesi ve Orta Doğu Teknik Üniversitesi'nde okuyan 401 öğrenci üzerinde yürütülmüştür. sonuçlar yedi ölçeğin dağıtımı sonucu toplanmıştır: Yaşam Deneyimleri Anketi, Çokboyutlu Algılanan Sosyal Destek Ölçeği, Aile ve Arkadaştan Algılanan Sosyal Destek Ölçeği, Yaşamı Sürdürme Nedenleri Envanteri, Beck Depresyon Envanteri ve demografik özelliklerin sorulduğu bir ölçek. Sonuçların analizi için çok yönlü regresyon analizi uygulandı. Elde edilen

sonuçlara göre intihar olasılığını, İntihar Olasılığı Ölçeği'nin tüm alt ölçekleri için, en iyi depresyon sonuçları yordamaktadır. Diğer önemli yordayıcılar arkadaştan algılanan destek, aileden algılanan destek ve yaşama nedenleridir. Sonuçlar ilgili literatür içinde tartışılmıştır.

Anahtar Kelimeler: İntihar Olasılığı, Yaşam Olayları, Depresyon, Sosyal Destek, Üniversite Öğrencileri

To My Parents, İnci and Güngör Tüzün

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CHAPTER I

INTRODUCTION

Suicide, the act of killing oneself purposely, has influenced societies as an important problem since the beginning of mankind. It can be considered from two perspectives. First, it is a personal act that an individual can take and personal factors play a role. Second, social factors play an important role and suicide is of concern to the society.

In order to give a clear definition of suicide, National Institute of Mental Health (Beck, Kovacks & Weissman,1979; Garrison, Lewinsohn, Marsteller, Langhin Richsen & Lann; 1991) decided on three categories. 1) Completed suicide: occurs when someone takes his or her life with conscious intent. 2) Attempted suicide: occurs when all the elements of a completed suicide are present except that the person survives beyond his or her control. This category includes incomplete suicide, unsuccessful suicide, suicide gesture (act that is symbolic of suicide but that constitutes no serious threat to life) and ambivalent attempts. 3) Suicide ideation: occurs when thoughts or fantasies about killing oneself are present, but there is a lack of behavior.

The suicide rate among young adults is particularly alarming. The rate has increased much more dramatically than it has in the general population. Suicide is listed as the second leading cause of death among 15-24 years olds, and each year this rate

seems to be increasing. The suicide rate for persons 15-24 years old tripled between 1950 and 1980, moving from the fifth leading cause of death in 1950, to the third in 1980 and to the second by 1989 (Cole, 1989; Dixon, Heppner and Rudd,1994). This is alarming in Turkey also. Among 15-24 years old the rate per 100.000, has increased from 28.2 in 1981 to 31.2 in 1990.

Besides the completed suicide, suicide ideation which occurs when thoughts or fantasies about killing oneself are present, but there is a lack of behavior, is also alarming among young adults especially among students (Rudd, 1989; Rickgarn, 1994).

There is a wide range of theories to explain suicidal behavior. The major theories of suicide may be grouped under: (a) sociological, (b) psychological and (c) biological theories of suicide. Although many of the major theories were not specifically constructed to explain youthful suicide, they are applicable to young people also.

Among sociological theories Durkheim's sociological theory is important. He proposed that an explanation of suicide was best rested with the nature of society and its level of control over the individual, rather than biological or psychological factor. He argued that, suicide results from society's strength or weakness of control over the individual (Durkheim, 1857/1951; cited in Whitaker & Slimak,1990; Berman & Jobes, 1991).

Besides this theory, in Social - Psychological approach it is asserted that adolescent suicide is a social phenomenon with psychological components and that adolescent suicide is related to interjections of multiple social (e.g., family conflict, school adjustment, and social relationships) and cognitively based psychological (e.g., hopelessness, intention and conceptions of death) factors (Petzel & Riddle, 1981; cited in Berman & Jobes, 1991).

Among Psychological theories of suicide, first one is that of Freud. Freud (Freud, 1917; cited in Berman & Jobes, 1991) explained the psychological mechanisms involved in turning hostility against the self. He stated that suicide resulted from extreme depression that was initiated by the loss of a significant love relationship. Aggression due to frustration and the displacement of that aggression inwardly is assumed to be a causal path to suicidality.

For the Social Learning theory Lester (1987) stated that suicide is a learned response to stressful life conditions. This approach assumes that suicidal adolescents imitate the behaviors of other family members and friends (Lester, 1987; cited in Eskin, 1995). A family history of suicide is considered significant as an alerting sign to suicide risk in adolescence.

Another psychological theory is Family Systems theory. The essence of this perspective is that disturbances in the family structure, including role conflict and blurring of role boundaries, dysfunctional alliances across boundaries, secretiveness and failures of communication, and rigidity with inability to accept change or

tolerate crisis, have been thought to increase suicidal acting out within the family system (Richman, 1986; cited in Berman & Jobes, 1991).

Cognitive theorist Beck (1976) has emphasized the role of cognitive errors and distorted thinking in suicidal behaviors. It is assumed that the thoughts and attitudes of the suicidal individuals are distorted in a systematic way. Within this cognitive perspective, hopelessness has been defined as a negative expectation for the future and have been found to be the most important clinical variable implicated in suicidal behavior.

Last theory is Biological theory. Studies within the biological perspective generally look at the relationship between suicidal behavior and a disturbed balance of seratonin and other monoamine neurotransmitters in the brain by measuring concentration levels of their metabolites in the cerebrospinal fluid (CSF), blood and urine. There seems to be a strong relationship between low levels of 5-hydroxyindoleactic acid (a seratonin metabolite) in the CSF and suicidality (Asberg, 1990; cited in Eskin, 1995).

These theories are intended to indicate the current trends and findings. The act of suicide has also been found to be affected by some long term risk factors like physical illness, substance abuse, and psychiatric illness.

Among psychiatric illnesses depression is the most important in terms of suicide. Studies done on depressive patients show that suicide is very common among these

patients. Depression has been frequently reported among both completers and attempters. The risk for suicide is at its highest point relatively early in the course of the disorder. The lifetime suicide risk for depression is reported to be %15 (Hawton, 1987). Depression is also common among students and become a risk factor for suicide. Schotte and Clum (1987) studied university students and their result indicated that suicidal ideators were under high levels of stress, were more hopeless and had higher levels of depression than non ideators. Similarly in Cole's (1989) two studies with high school students, depression was found to be significantly related to suicidal behavior

There were also some precipitating life events that affected the act of suicide. These stressful life events are mostly precipitating or triggering factors and occur closer to the suicidal act (Heikkinen, Aro, Lönnqvist, 1993). These events span a range of threatening, undesirable, shameful or humiliating experiences. The stressful life events for young people have been investigated by many researchers (Peck, 1987; Neiger & Hopkins, 1988; Dukes & Lorch, 1989; Rubenstein, Heeren, Housmann, Rubin & Stechler, 1989; Cole, 1989; Westefeld, Range & Whitehard, 1990; Simonds, Mc Mohan & Armstrong, 1991; Clum & Febbraro, 1994; Garland & Zigler, 1993; Butler, Noviy, Kagan & Gates, 1994) and they have found that in youth suicide the life events that contribute to suicide included family, school, interpersonal problems, and other life events.

There are also some factors that protect individuals from suicide. Religious values, beliefs in own capabilities, the value of living in general, and survival and coping

beliefs may be important considerations against contemplating suicide (Linehan, Goodstein, Nielsen and Chiles,1983; Connell & Meyer,1991). Two other important factors also play an important role for protecting individuals from suicide: Cognitive factors and social support.

Cognitive factors include flexibility in thinking styles, using coping mechanism, and having problem/solving skills (Fremouw, Callahan and Kashden, 1993). There is extensive evidence for the role of social support in stress and in suicide. Sarason (1983) defined social support as the existence or availability of people on whom we can rely, people who let us know that they care about and value us Social support is provided by networks composed of family, relatives, friends, neighbors and coworkers, especially when the interaction is positive.

As a conclusion, there is an with the increasing rate of attempts and completed suicides, and suicide probability or ideation is an important factor especially for student population. It is important to increase our understanding of suicide ideation among young people. It is important to find the likelihood of the suicide ideation or probability and its predictive and protective variables among normal student populations in order to see how the suicide ideation and predictive variables happen in a non - clinic sample, and in order to develop prevention programs.

The purpose of the present study is to investigate the relationship of life events, depression, reasons for living, and social support to the level of suicide probability

among Turkish university students. The aim is to find the best predictor of suicide probability among these variables for Turkish university students.

CHAPTER II

REVIEW OF LITERATURE

2.1Definition

Suicide, the act of killing oneself purposely, has influenced societies since the beginning of mankind. Suicide can be considered in terms of two dimensions. Suicide is a result of interaction of psychological and social factors. First of all, it is a personal act that an individual can take and, therefore personal factors play a role. For example, gender differences, age, educational level, family life, coping abilities, the network system, and mood changes are some of the personal factors that could be effective in suicide. Secondly, social factors play an important role and the act of suicide is of concern to the society. Social and physical changes of the world, such as the increase of the population, unemployment, homelessness, whether changes, and economic problems could also be effective. With the effect of these two factors, it can be said that, in almost all cultures and societies suicide occurs in a variety of circumstances and across different phases of the life cycle. The reasons of suicide and its results have been the subjects of researchers for years.

In order to give a clear definition of suicide, National Institute of Mental Health (Beck, Kovacks & Weissman,1979; Garrison, Lewinsohn, Marsteller, Langhin Richsen & Lann; 1991) decided on three categories. 1-Completed suicide: occurs when someone takes his or her life with conscious intent. 2- Attempted suicide: occurs when all the elements of a completed suicide are present except that the

person survives beyond his or her control. This category includes incomplete suicide, unsuccessful suicide, suicide gesture (act that is symbolic of suicide but that constitutes no serious threat to life) and ambivalent attempts. 3-Suicide ideation: occurs when thoughts or fantasies about killing oneself are present, but there is a lack of behavior.

There are some common characteristics of suicide. Shneidman (1987) has identified ten characteristics that can be delineated in each suicide, and these characteristics are applicable to youth suicides also (Shneidman, 1987 pp. 123-149; cited in Patros & Shamoo, 1989; Eskin, 1995). They are:

1. *The common stimulus in suicide is unendurable psychological pain.* Suicide is usually characterized as a reaction to an emotional pain that is so intense as to seem never ending. The suicide notes clearly testify to the suffering of the individual.

2. *The common purpose of suicide is to seek a solution.* Due to the pain, suicide becomes a way out of a problem, a self-destructive strategy.

3. *The common goal of suicide is cessation of consciousness.* Stopping the awareness of pain by shutting down the consciousness.

4. *The common stressor in suicide is frustrated psychological needs.* The needs for security, achievement, trust and friendship are unfulfilled. The suicidal individuals are generally found to be socially, interpersonally and physically at a disadvantage.

5. *The common emotion in suicide is helplessness-hopelessness.* A sense of powerlessness and impotence in dealing with pain are clearly associated with both affective disorder and suicide.

6. *The common internal attitude toward suicide is ambivalence.* This ambivalent attitude, wanting to die and to live, is clear from the attempt to commit suicide and at the same time a cry for help.

7. *The common cognitive state in suicide is constriction.* The cognitive state is very rigid and the range of options are narrowed.

8. *The common action in suicide is escape.* It is an ultimate run away. Due to either internal-personal or external-life difficulties suicidal person tries to escape by committing suicide.

9. *The common interpersonal act in suicide is communication of intention.* Clues are given about suicidal intent. Contrary to general belief, suicidal individuals generally communicate their intention to others.

10. *The consistency in suicide is with life-long coping patterns.* Suicidal outcome is dependent upon the individual's coping skills. Suicidal individuals have inadequate or ineffective problem solving strategies in dealing with the current issues.

As it is clear from the above classification, Shneidman's approach in stating the common stimulus, purpose, goal, strssor, emotion, internal attitudes, cognitive state, action, interpersonal act and common consistency in suicides touches to the central issues of suicide. His views are central to the study of suicide.

2.2 Prevalence

There is a slow but continuous rise of suicide rates in various countries. It was estimated that in 1980 there were 300.000 or 400.000 completed suicides all over the world (Diekstra, 1989). Suicidal behavior is an increasing concern for US

society. Data from National Center for Health Statistics (National Center for Health Statistics, 1991; cited in Smons & Murphy,1985; Dixon, Rumford, Heppner & Lips, 1992; Rickgarn, 1994) revealed that during 1983 there were 20.000 reported suicides and, this number increased to 28.500 in 1985 and to 30.810 in 1991 for persons of all ages. Today, in USA, suicide is considered to be the eight leading cause of death in general population

The rate of adolescent's and young adults' suicide has increased much more dramatically in the past few decades than it has in the general population. National Center for Health Statistics (National Center for Health Statistics, 1991; cited in Garland & Zigler, 1993) reported that in the United States, in 1988, a total of 2059 young adolescents aged 15-19 and 243 children under age 15 committed suicide. This increase is the same for 15-24 year-old age group also. In the United States for the people in the 15-24 year age group, the suicide accounted for 13.1 deaths per 100.000 people in 1991 (Rickgarn, 1994).

Suicide rate for persons 15-24 years old tripled from 1950 to 1980, moving from the fifth leading cause of death in 1950 (the rate was 3.6 per 100.000 in 1960) to the third leading cause in 1980, and to the second by 1989 (the rate was 13.1 per 100.000 in 1991). This increase is more than 200%, compared with a general population increase of 17% (Cole, 1989; Dixon, Heppner & Rudd, 1994).Young people who are in this age group of fifteen to twenty-four are mostly students. This increase of suicide rate for the 15-24 age group is alarming for high schools,

universities, and colleges. Silverman (1993) stated that one specific group in which the suicide rate has increased in the U.S. is college and university students.

Suicidal ideation and attempts are frequent events among adolescent and young adults. Among 313 high school students, Smith and Crawford (1986) found that 62.5 % had reported some degree of suicidal ideation or action, including 8.4 % who had actually attempted suicide. In another study of 737 university students, Rudd (1989) documented 43.7 % of the students as having experienced some level of suicidal ideation during the previous year. Of those suicidal ideators, 14.9 % had acted on their thoughts in some way. They had told others about their suicidal thoughts and some had come close to making an attempt. An additional 5.5 % had made attempts to kill themselves. After a mental health needs assessment at Columbia University, it was found that, among 344 students, more than 1/4 reported suicidal thoughts as a concern (Rickgarn, 1994). Recently, Steer, Kumar and Beck (1993), found suicidal ideation in 39.8 % of adolescent psychiatric inpatients. Bagley and Remsey (1993) in Canada, found more suicidal ideas and behavior among young (18-24 years old) than among other age groups. Surveying nearly 10.000 secondary education students in the Netherlands; Kienhorst, De Wilde, Bout, Burg, Diekstra and Wolters (1990) found that 5.2 % of the girls and 2.2 % of the boys currently had thoughts of suicide.

When some other countries are examined for the completed suicide event, we see that the suicide rate is also increasing for most of them. Aro, Martunnen and Lönqvist (1993) examined the suicide mortality among the Finnish youth for a 10

year period by using the official Finish mortality statistics and the population statistics between 1979 and 1988. Suicide rates increased sharply during adolescence. The Canada's Health and Welfare's Report (Health and Welfare, Canada, 1987; cited in Leenars & Lester, 1990) showed that the average rate of suicide between the years 1960 and 1985 for the age range of 15 to 19 years old was 16.1 per 100.000. It is reported that Canada's suicide rates for the young were greater than those for the United States in the 1980s (Leeners & Lester, 1990). The data from Central Bureau of Statistics of Netherlands (CBS, 1985; cited in Diekstra, Maris, Platt, Schmidtke & Sonneck, 1989) showed that in the age group 15-19 (the rate was 3.1 per 100.000 in 1955, and 7.4 per 100.000 in 1984) suicide was the third most important cause of death and in the age group 20-29 (the rate was 7.2 per 100.000 in 1955, and 24.5 per 100.000 in 1984) it had the second place.

According to the 1987 report of the WHO (World Health Organization, 1987; cited in Diekstra, 1989) in Arabic and Latin American countries the rate of suicide was relatively low. The European countries and countries populated in the majority by people of European descent, such as Australia, United States and Canada, tend to have relatively high rates. Within the European countries, southern countries similarly have also relatively low rates, while northern and middle European countries have higher rates of suicide. When a comparison was made between 1960 and 1985, it was found that the rank of the countries was not very much different from today's ranking, but more countries have witnessed an increase than a decrease (Diekstra, 1989).

Gender difference was also of interest in epidemiological studies of suicide. In every country reported in the WHO statistics for 1987 annual (World Health Organization, 1987; cited in Diekstra, 1989), the total completed suicide rates for males were higher than those for females. In United States the suicide rate was higher among males than among females and the increase between 1960 and 1988 was most striking among white males (Diekstra, 1989; Garland & Zigler,1993). This gender difference also applies to young population. Statistical Abstract of the United States (Statistical Abstract of the United States, 1992; cited in Rickgarn, 1994) reported that the rate of suicide among 15-19 years old white males was 19.4 per 100.000 in 1989 and black males 10.3 per 100.000, compared to the rate of 4.5 per 100.000 in white females and 2.3 per 100.000 for black females. For 20-24 years old white males the rate was 26.8 per 100.000 and for the black males 23.7 per 100.000, compared to 4.3 per 100.000 in white females and 3.4 per 100.000 for black females. Leenaars and Lester (1990) reported that in Canada the average suicide rate for 15-19 years old was 13.9 per 100.000 for males compared to 3.1 per 100.000 for females, between 1960 and 1985. On the other hand, it was estimated that female's rates of *suicide attempts* were much higher than males, because males who committed suicide, had only the thought of dying; therefore, their acts were serious. For females, the rate of *completed suicide* was lower compared to males because their acts were not as serious as those of males. The *attempted suicide* rate of females was higher because, it is thought that their aim was not to end their lives but to attract attention and a cry for help (Diekstra, 1989).

Turkey is mentioned among those countries where suicide rate is comparably lower. Güleç and Küey (1989) reported that in an epidemiological study Turkey was found to be a country in which the suicide rate was low. Although the suicide rate was not as high as in other countries, there is a slow but constant increase. The suicide rate per 100.000 was 1.7 in 1979 but it rose to 2.42 in 1990 (Devlet İstatistik Enstitüsü, 1990). There are an increasing rate and also a peak rate in 15-24 age group, as in other countries. The rate per 100.000 was 28.2 in 1981 but it increased to 31.2 in 1990, and 1/3 of all suicides occurred in this group. Concerning gender differences in Turkey, suicides ending in death are twice as much among males than in females, whereas *attempted suicides* are twice as much among females than in males (Sayıl, 1992).

Suicidal behavior and mortality rates show a increasing rate from one setting to another, but the message is clear, suicidal behavior is a major mental health problem among young people in almost all human societies. Suicide probability and the ideation also began to be another important problem especially among young student population.

2.3 Theories of suicide

There is a wide range of theories to explain suicidal behavior. The major theories of suicide may be grouped under: (a) sociological, (b) psychological and (c) biological theories of suicide. Although many of the major theories were not specifically constructed to explain youthful suicide, they are applicable to young people.

2.3.1 Sociological theory of suicide

Durkheim's sociological theory

With the beginning of the twentieth century major attempts were made to investigate the reasons and to develop theories of suicide. Emile Durkheim (1897/1951) a French sociologist, made the first large sociological study of suicide in the late 19th century. He examined suicide by correlating the national suicide rates of various European countries with social, political and economic indicators of those countries and by taking into account the large events and trends over time. He proposed that an explanation of suicide was best rested with the nature of society and its level of control over the individual, rather than biological or psychological factor. He argued that, suicide results from society's strength or weakness of control over the individual. His theory assumed an inverse relationship between suicide rate and the level of social integration. Social integration is defined as the need of integration into the larger community. As a result of his analysis, Durkheim proposed four kinds of suicide, all of them emphasizing the strength or weakness of the person's relationships or ties to society. "Alturistic" suicides are required by the society as a response to its expectation, under certain circumstances. They result from an individual's excessively strong integration; hara-kiri is an example. "Egoistic" suicide occurs when the individual has too few links and a lack of social integration with his or her society. Durkheim believed that egoistic suicide occurred because of excessive individualism. For example, according to Durkheim, there are more suicides among individuals without families or religious ties, than those individuals who have such ties. "Anomic" suicides are those that occur when a routine or established relationship between the individual and his society is

suddenly broken up. Suicide is chosen as the solution of the problem; suicides after the loss of a spouse, job or a close friend are examples. "Fatalistic" suicide derives from excessive social regulation that restricts an individual's freedom. Victims of fatalistic suicide feel that they have no viable future; suicides in the prisons after being arrested and the reactions of slaves to oppression are examples (Durkheim, 1857/1951; cited in Whitaker & Slimak,1990; Berman & Jobes, 1991).

Social Psychological approach

In order to address some of the limitations of purely sociological approach, some recent theories attempt to synthesize both inter- and intra-personal variables of suicidal behaviors. In an extensive review of the literature about adolescent suicide as a social phenomenon with psychological components, it is asserted that, adolescent suicide is related to interjections of multiple social (e.g., family conflict, school adjustment, and social relationships) and cognitively based psychological (e.g., hopelessness, intention and conceptions of death) factors (Petzel & Riddle, 1981; cited in Berman & Jobes, 1991). This integrative social and psychological conceptualization of youthful suicide provides to understand the psychological meaning of death and related behavior.

2.3.2 Psychological theories of suicide

Psychodynamic theory

Psychology and psychiatry also have studied the phenomenon of suicide. Psychological views of suicide begin with Sigmund Freud. According to him suicide was essentially a personal phenomenon. His focus on the mind as the locus for

suicide motivation, rather than the focus on society as Durkheim did, indicates an intra-personal rather than an inter-personal perspective. He never wrote a paper specifically about suicide, but as he worked with some suicidal patients, he provided some important perspectives on the topic. In his work "Mourning and Melancholia" (Freud, 1917; cited in Berman & Jobes, 1991). Freud explained the psychological mechanisms involved in turning hostility against the self. He stated that, suicide resulted from extreme depression that was initiated by the loss of a significant love relationship. Aggression due to frustration and the displacement of that aggression inwardly is assumed to be a causal path to suicidality. Unconscious hostility as a reaction to psychological loss played a central role in the development of suicidal behavior. According to him self-reproach and suicidal ideation was often seen in melancholic depressions

Another psychoanalytical explanation was proposed by Menninger in his book "Man Against Himself" (Menninger, 1938; cited in Diekstra et al., 1989). He explained the wish of living and dying and defined suicide as a conflict between them. He has identified three motives for committing suicide: (a) the wish to kill, (b) the wish to be killed and (c) the wish to die. According to him each of these three wishes is present in every suicide. For him, suicide involves a conscious wish to die, while suicide attempts involve an unconscious wish not to die Zilboorg (Zilboorg, 1937; cited in Berman & Jobes, 1991) refined these psychoanalytic hypotheses of Menninger and Freud and stated that every case of suicide contains not only unconscious hostility but also an unusual lack of capacity to love others

Social Learning theory

Lester (1987) has applied the social learning theory to suicide. He stated that suicide is a learned response to stressful life conditions. This approach assumes that suicidal adolescents imitate the behaviors of other family members and friends (Lester, 1987; cited in Eskin, 1995). A family history of suicide is considered significant as an alerting sign to suicide risk in adolescence. Exposure to the suicidal behavior of another person in the social network or the families of completers or attempters, appears more common to the risk groups (ideators and attempters) than to normals. (Rickgarn, 1994).

Family Systems theory

Richman (1986) is an important author of the family systems approach to suicide and its application to family therapy treatment of suicidal individuals. The essence of this perspective is that disturbances in the family structure, including role conflict and blurring of role boundaries, dysfunctional alliances across boundaries, secretiveness and failures of communication, and rigidity with inability to accept change or tolerate crisis, have been thought to increase suicidal acting out within the family system (Richman, 1986; cited in Berman & Jobes, 1991). Dysfunctional families and parental psychopathology appear more common in the risk groups (ideators and attempters) than in normals. (Rickgarn, 1994).

Cognitive theory

From the perspective of the cognitive theory, Beck (1976) has emphasized the role of cognitive errors and distorted thinking in suicidal behaviors. It is assumed that the

thoughts and attitudes of the suicidal individuals are distorted in a systematic way. Beck's concept of the "cognitive triad (negative thoughts about oneself, the future, and the others) is central to the cognitive theory. According to this theory the depressed individuals are characterized by a negative view of the self; a negative view of the world; and a negative view of the future. Within this cognitive perspective, hopelessness has defined as a negative expectation for the future and have been found to be the most important clinical variable implicated in suicidal behavior.

2.3.3 Biological theory

Biological approach to suicidal behavior has examined biological correlates of suicide. Research tries to find biochemical correlates of suicidal behavior. These studies generally look at the relationship between suicidal behavior and a disturbed balance of seratonin and other monoamine neurotransmitters in the brain by measuring concentration levels of their metabolites in the cerebrospinal fluid (CSF), blood and urine. There seems to be a strong relationship between low levels of 5-hydroxyindoleactic acid (a seratonin metabolite) in the CSF and suicidality (Asberg, 1990; cited in Eskin, 1995). Reviewing studies about this relationship, Roy (1994) concluded that depressed patients who had attempted suicide and those who had reattempted over a 5-year follow-up period had significantly lower CSF concentration of the metabolite acid than patients who had not attempted or did not reattempt suicide. Biological explanations do not exclude psychological variables which exert an influence in the suicidal process. Biological, psychological and social systems interact and influence one another. Asberg (1987) proposed that the low

levels of CSF 5-hydroxyindoleactic acid constitute a vulnerability factor for suicide in the face of subjectively perceived adverse life conditions (Asberg, 1987; cited in Eskin, 1995).

2.4 The etiology of Suicide

The study of the causes, origins and reasons for suicidal behavior is an attempt to answer the question, "Why?". The etiology of suicide needs to be understood to generate effective prevention, intervention and postvention activities. Especially when the rise of suicide among adolescents and young adults is considered, research on the reasons of suicide and the development of these activities becomes very important. The information that the professionals have on the reasons of suicide has been derived in various ways. On the basis of suicide victims' suicide notes and interviews with suicide victims' families and friends, and information that has been given by those individuals who have attempted suicide, it was found that there were some variables found to be associated with the act of suicide, both among adults and adolescents. It is thought that there was no single causative factor that produce suicidal behavior, and that suicide was the end result of a process, not the process itself (Beck, Resnick & Lettieri, 1974; cited in Rickgarn, 1994). There are number of variables that enter into the suicidal behavior. There is a continuum of interaction among the variables that found to be associated with the act of suicide. These variables can be examined under two broad categories: (a)some major components which are defined as "risk factors" and (b) some precipitating factors, "life events".

2.4.1 Risk factors for suicide

The risk factors found to be associated with the act of suicide includes physical illnesses, psychiatric disorders especially depression, and alcohol and substance abuse. The identification of these factors should be an indicator to the possibility that this person may attempt to suicide.

Physical Illness: Physical disorders, especially those of a chronic nature, are common among suicide's victims (Hawton, 1987). Maris (1991) reported that suicide victims' physical illness rate ranged between %30 to %40. The rate of physical illness in the suicide completers was %38 in Denmark, %28 in England, %20 in United States, and %29.9 in Switzerland (Rao, 1990).

When these physical disorders are examined it can be said that the majority of suicide completers had cancer. Suicides occurred among all types of cancer patients, but women had a stronger suicidal tendency than men. Older man formed a high-risk group also. It was found that %70 of women suicide completers had cancer of the breast and genitals (Hjörstsjö, 1987). Allebeck, Peter, Bolund and Christina (1991) analyzed suicides and suicide attempts in cancer patients in Stockholm from 1975 to 1985. Among 59.845 cancer patients 144 (% 0.24) completed suicides and 196 (% 0.32) attempts were identified. Physical illnesses that have been found to be related to suicide other than cancer were cardiovascular disease, malignant neoplasmas, gastrointestinal and musculoskeletal disorders, and epilepsy (Maris, 1991).

Psychiatric disorders: Studies examining the prevalence of suicidal behaviors in psychiatric populations focus on suicidal behaviors within specific diagnostic groupings, for example, mood disorders or schizophrenia and they have shown that nearly all suicide victims were psychiatrically ill in the time period immediately preceding the suicidal act (Michels & Cavener, 1987). Rich, Young and Fowler (1986) studied a large cohort of completed suicides under the age of 30 in San Diego and summarized their findings by stating that "psychiatric illness is a necessary (but insufficient) condition for suicide" (p.118). These researchers were able to retrospectively provide DSM-III diagnoses to %92 of the cases they studied. Similarly, Berman and Jobes (1991) have noted also that only a very small proportion of suicides appears free of psychiatric symptoms.

Research (Westermeyer, Harrow & Marengo,1991) showed that the rate of suicide in schizophrenia is %10 and it occurred in early and more chronic phases of the illness. The long term research of Winokur and Tsuang (1975) showed that %10 of 170 diagnosed schizophrenics had died from suicide. Similarly, Drake and Cotton (1986) reported that out of 104 schizophrenic patients they studied 15 (% 14.4) committed suicide. They were experiencing major depressive disorders at the same time. Westermeyer and his colleagues (1991) found that in a sample of 94 male schizophrenics 10 (% 10.6) committed suicide. In another research it was again found that 22 (% 47.8) out of 46 suicidal patients were diagnosed as schizophrenics (Kotler, Finkelstein, Molcho, Botsis, Plutchik, Lynn-Brown & Van Praag, 1993).

Completed suicide is rarely found in personality disorders. However, personality disorders are noted among those threatening suicide and those making non lethal suicide attempts. The risk for them may increase if personality disorder is complicated by substance abuse (Michels & Cavener, 1987). Soloff, Lis, Kelly, Cornelius and Ulrich (1994) found that out of 84 patients with borderline pathology 61 (% 72.6) patients had a lifetime history of non lethal suicide attempts.

2.4.1.1 Depression

The most frequent psychiatric disorder that is observed in suicide is depression. Depression is reported to be the disorder with the highest prevalence in our century. The WHO (WHO, 1987; cited in Michels & Cavener, 1987) estimated that in 1983 there were 200 million people with depression in all over the world. Studies done on depressive patients show that suicide is very common among these patients. Depression has been frequently reported among both completers and attempters. The risk for suicide is at its highest point relatively early in the course of the disorder. The lifetime suicide risk for depression is reported to be %15 (Hawton, 1987).

According to Beck (1963), suicidal behaviors of depressive patients are a result of cognitive distortions. Wetzel and Reich (1989) reported that the cognitive triad (negative thoughts about oneself, the future, and the others) and suicide intent in depressed patients is correlated. Most of the people who attempt suicide are trying to find a solution for their helplessness or hopelessness. Hopelessness or negative expectations about the future have been emphasized as one of the most important

factors leading to suicide in depressed individuals (Minkoff, Bergman, Beck & Beck, 1973; Beck & Lester, 1973; Beck, Kovacks & Weissman, 1975). There have been lots of studies which attempted to show the relationship between suicide and hopelessness. A significant association is found between level of hopelessness and seriousness of suicide intention and between level of depression and seriousness of suicide intention (Minkoff et al, 1973; Beck, Brown, Berchich, Stewart & Steer, 1990).

In a 10-years longitudinal study (Beck, Steer, Kovacks & Garrison, 1985) on 165 depressive patients, it was found that from the hopelessness scores of the patients their suicidal behaviors could be predicted. Hopelessness scores of the suicidal patients were significantly higher than those of the other depressive patients. Beck, Brown and Steer (1989) and Beck, Steer, Beck and Newman (1993) supported the above findings. Hopelessness appears to be an important predictor of suicide.

Depression is generally agreed to be the most common mental health problem among college and university students. Blatt, D'Affitti and Quinlan (1976) studied depression in normal college students and believed that there was a continuum of depression from normality to severity. They found that there were three major variables that contributed to varying levels of depression: (1) a sense of dependency - students were in need of help and support from others; (2) a sense of self-criticism - students had an exaggerated tendency to criticize their fault and to self-devaluate; and (3) inefficacy - students had a sense that things were "out of control" of their

own efforts and actions. It was found that depression was the most significant contributing factor in college dropouts (Sherer, 1985).

The existence of a relationship between depression and suicidal behavior is well established among students. In research, significant correlations between suicidal ideation, suicide attempt, or suicide on the one hand and depressed mood or depressive syndrome on the other have been reported (Sherer, 1985; Cole, 1988; DeWilde, Kienhorst, Diekstra & Wolters 1992). Lester and Miller (1990) reported that, in a sample of 250 high school students, depression was found to be a much stronger correlate of suicidal preoccupation than shyness, alienation or academic performance. Westefeld and Furr (1987) surveyed 926 students in three institutions and they found that 81% of the students stated that they had experienced depression since entering college. Furthermore 32% of them had experienced suicidal ideation while 4.5% had attempted suicide (Westefeld & Furr, 1987; cited in Westefeld, Whitechard and Range, 1990). Schotte and Clum (1987) studied university students and their result indicated that suicidal ideators were under high levels of stress, were more hopeless and had higher levels of depression than non ideators. Unlike research with adults, in Cole's (1989) two studies with high school students, depression was significantly related to suicidal behavior even after hopelessness was statistically controlled. Hopelessness also appeared to be a significant factor in this age range. In fact, Dixon, Heppner and Anderson (1991) found that, in their sample of 1600 university students, hopelessness appeared to be a more important predictor of suicide than negative life events. Continuing this research, Dixon et al. (1992) surveyed 1793 students in their two studies. In addition to negative life events, they

predicted that hassles would be a significant predictor of hopelessness. However, they did not include depression among their variables in these studies.

In conclusion, it seems that depression is a very important disorder and a significant factor in suicidal behaviors among adolescents, and that hopelessness is an important predictor for suicide.

Alcohol and substance abuse: On the basis of several follow-up studies, Hawton (1987) estimated that approximately %15 of alcoholics eventually committed suicide and that the majority of them were also depressed. Murphy (1988) stated that the lifetime risk of suicide in alcoholism was %11 to %15. The population at risk consisted of seriously affected alcoholics. Greenwald, Reznikoff and Plutchik (1994) found that suicide and violence risks were significantly positively correlated for alcoholics.

For young population substance abuse is also another risk factor for suicide. Suicidal adolescents and young adults report higher frequencies of drug and alcohol abuse problems relative to non-suicidal individuals. Patros and Shamoo (1989) stated that drug and alcohol abuse is seen as a slow form of suicide and a signal of a youth's inability to cope with the stresses of reality and often a withdrawal into themselves. In addition, alcohol and/or drugs will often intensify aggression, which, if turned inward toward oneself, may result in suicide. Drug and alcohol abuse have been found with greater frequency among completers. It is found that between 45 to 50 percent of suicidal deaths in the 15-25 age group appear to be related to the

use of alcohol and drugs (Whitaker & Slimak, 1990). In their study of a survey of 43 colleges and universities on the relationship between substance use disorder and suicide attempts and/or completed suicides Whitaker and Slimak (1990) found that 56 % of the completed suicides were assessed to be intoxicated with either alcohol or another psychoactive chemical and 65 % were thought to have diagnosable substance use disorder. For the attempted suicides they found that 35 % of attempters were intoxicated with alcohol or another drug and 43 % were diagnosed to have a substance use disorder at the time of assessment. Runeson (1990) found that, among the 58 suicides committed between 1984-1987 by adolescents and young adults (age 15-24), psychoactive substance abuse was present in %47 of the victims. Murphy (1988) reported that %67 of the suicides under the age of 30 years were identified as substance abusers.

In studies of adolescent substance users, suicide attempts have been found to occur at rates three times those of controls, with the "wish to die" increasing dramatically after the onset of substance use (Rickgarn, 1994). Whitaker and Slimak (1990, pp. 50-51) stated that there appears to be five general groups of suicidal gestures related to substance abuse:

1) During intoxication the chemical or chemical combination produces depression and impulsive suicidal gestures are a direct result.

2) Suicide attempts may be related to chemical withdrawal and to remorse over events and loss of control occuring during intoxication.

3) Suicide attempts or completed suicides occur when a student takes an intoxication drug in hope of relieving depression and finds it ineffective.

4) Suicide attempts occur among a group of students who are already addicted to a psychoactive chemical.

5) Students further at risk are those who have both a substance use and a psychiatric disorder.

Suicidal adolescent report higher frequencies of drug and alcohol abuse problems compared to non-suicidal adolescents. Wright (1985) investigated the incidence of serious suicidal thought and its relationship to family stress, drinking and drug abuse problems among both high school and college students. He found that both student groups who reported serious suicidal thoughts significantly think themselves as having a drinking problem and a drug abuse problem. Similarly Robins and Alessi (1985) found that alcohol abuse was significantly associated with suicidal tendencies, the number of suicidal gestures, the seriousness of suicidal intent and the medical lethality of the behaviors (Robins & Alessi, 1985; cited in Rickgarn, 1994). Workman and Beer (1990) also found a significant relationship between alcohol dependency and suicide ideation among 126 high school students. In their study of suicidal ideation in adolescence Kandel Raveis and Davies (1991) found that, among 597 high school students there was a strong association of drug use with suicidal ideation among girls, and a stronger relationship with attempts among boys.

It is clear that there is a significant correlation between alcohol/drug abuse and suicidal behaviors among adolescents and young adults. It is also clear that there are a considerable number of potential college students. Students may be abusing

alcohol and/or drugs to provide an escape from their problems that are creating intolerable situation. It is important to determine these underlying causes.

2.5 Life events

People experienced different events in their daily lives, like death of a loved one, divorce, loss of a job, illness, failures in education life. Probably a large portion of these events is daily routines that are common to most of us but some are less frequent and yet more important major events that may have marked effects in our lives. Researchers (Lin & Walter, 1989; Rickgarn, 1994; Kienhorst, 1995) consider life events as sources of stress, but they also consider that individual differences, such as the meaning an event holds for an individual as, mediating factors. Life events are sources of stress but appraisal styles are also important for the impact of the event on well - being (Clum & Febbraro, 1994). Folkman and Lazarus (1980, 1985) stated that cognitive appraisal is an important critical mechanism of stress. In cognitive appraisal the person evaluates whether a particular event is relevant to his or her well-being. When a person evaluates the situation as stressful, the degree of stress increases depending on available coping resources. When these resources are inadequate the degree of stress increases again and the events become more stressful (Folkman & Lazarus, 1980/1985; cited in Rickgarn, 1994). Bandura (1977) also has emphasized the role of cognitions about the meaning and implication of stressful events for one's self efficacy and one's perception of personal coping abilities (Bandura, 1977; cited in Berman & Jobes, 1991).

According to Schotte and Clum model (1982), when people who are deficient in problem-solving abilities are exposed to naturally occurring stressful life events they can not find effective solutions for adaptive handling of difficult situations and this results in hopelessness and in turn, hopelessness exposes individuals to an increased risk for suicide. Depression also becomes a significant factor when people are exposed to stressful life events. It also becomes a significant factor when people's coping mechanisms begin to fail and their view of the world and of themselves becomes significantly negative (Rickgarn, 1994).

These stressful life events are mostly precipitating or triggering factors and occur closer to the suicidal act (Heikkinen, Aro, Lönnqvist, 1993). These events span a range of threatening, undesirable, shameful or humiliating experiences. They are experiences of a relatively short duration, ranging from six months to a year (Garland & Zigler, 1993; Paykel,1994).

Most of the research on suicide (Hawton, 1987; Diekstra, 1989; Wolf, Elstan & Kissling, 1989; Lin & Ensel, 1989; Mallinckrodtf & Leong, 1992 a/b; Vilhjalmsson, 1993: Heikkinen et al., 1993; Paykel 1994; Clum & Febbraro 1994) examined these stressful life events as precipitating factors and identified them as predictors of suicidal behavior. These life events can be listed as follows: Death of a key person, bereavement of a parent, a close family member, or bereavement of the spouse; a major difficulty or a severe event during the period prior to suicide, such as, somatic illness in the person and illness in the family, family problems, and arguments and discord with key interpersonal figures; personal losses (excluding death) of various

kinds, such as, break up of a relation, separation (from spouse or family), and job losses; significant changes of living conditions, such as, job problems, moving to another place, financial troubles, and unemployment. Some of the above life events could be beyond subject's control, requiring great readjustment. Other stressful life events are exposure to suicide (a sibling's or a friend's attempted or completed suicide), a parent's or an adult relative's suicidal ideation, death of any one close to the subject by an accident or homicide.

Stressful life events for young people that can precipitate or trigger suicide have some differences than those for other ages. They are related with the changes during adolescence and young adulthood. Besides these life events the changes during these years have to be considered. These years comprise a period of unique developmental changes in the individual's life. The period is characterized by a complex set of developmental tasks or demands that move the young person from childhood to young adulthood. The rapid physical, psychological, and social changes that occur include: the experience of puberty, establishing different relationships with peers, achieving new and more mature relations with age-mates of both sexes, achieving a masculine or feminine social role, accepting socially responsible behavior, achieving emotional independence from parents and other adults, achieving distinct cognitive or intellectual capabilities, preparing for a career, selecting a mate, marriage, taking more responsibilities, and finding a social group (Santrock, 1989).

With these complex set of developmental tasks and demands, socio-environmental factors also received considerable attention in the adjustment of the young person to the changes that experienced during adolescence and young adulthood (Aro, Martunnen & Loinnqvist, 1993). Socio-economic factors, such as, family poverty, lower levels of parental education, and problems at school were considered to have influences in this adjustment process (DuBois, Felner, Meares and Krier, 1994).

The stressful life events for young people have been investigated by many researchers (Peck, 1987; Neiger & Hopkins, 1988; Dukes & Lorch, 1989; Rubenstein, Heeren, Housmann, Rubin & Stechler, 1989; Cole, 1989; Westefeld, Range & Whitehard, 1990; Simonds, Mc Mohan & Armstrong, 1991; Clum & Febbraro, 1994; Garland & Zigler, 1993; Butler, Noviy, Kagan & Gates, 1994) and they have found that in youth suicide the life events that contribute to suicide included family, school, interpersonal problems, and other life events.

Among family problems, poor communication, value conflicts, alienation from family, inadequate love, affection and support provided by family members, dysfunctional family pattern, death of a parent, divorce, family suicidality and family emotional disorders are found. In his review article, Wagner (1997) evaluated the empirical support for the claims that various aspects of family dysfunction are risk factors for completed suicide or suicidal symptoms in childhood and adolescence, and the evidences showed that a history of physical or sexual abuse, poor family or parent-child communication, loss of a caregiver by separation or death, and psychopathology in first-degree relatives were risk factors. Peck, Farberow and

Litman (1985) found a large consensus among suicidologists that the emotional climate in the family is strongly related to suicidal behavior among children and adolescents. Parental divorce, separation, and death and psychiatric disturbances of the parents may all have negative effect on this climate. Bolger, Downey, Walker and Steininger (1989) indicated that, in their study with 364 college students, the risk of suicidal ideation is affected by the experience of parental absence and this absence has the strongest affect during preadolescence. Patros and Shamoo (1989) stated that the loss of a parent figure before age twelve had a significant impact upon a child's susceptibility to suicide. It removes the role model for developing young people. Apart from death, the loss of a parent could occur from separation and divorce also. Parental divorce is often shown to have a negative impact on the psychological adjustment and well-being of adolescents. It is found that relative to the children of intact families, adolescents from the disintegrated families show higher levels of distress and that parental divorce and separation are strong precipitating life events for suicidality in adolescence (Garfinkel, Froose & Hood, 1982; Berman & Jobes, 1991; Peck et al., 1985). Crook and Raskin (1975) is found a significant excess of childhood parental loss due to divorce or separation among depressed psychiatric inpatients with a history of suicide attempt relative to the non-suicidal depressed group (Crook & Raskin, 1975; cited in Eskin, 1995). A family history of psychiatric disorders is often demonstrated to be a powerful precipitating factor for suicide. Garfinkel et al (1982) reported a family history of psychiatric disorders among 50 % of suicidal adolescents compared to 16 % for non suicidal group. Similarly, a family history of suicidal behavior is consistently found to be a potential risk factor for suicidal behavior among youth (Wilson, 1991). Recently

Gould, Shaffer, Fisher, Kleinman and Morishama (1992) reported that 40 % of the adolescent suicide completers had a first or second degree relative who had previously attempted or committed suicide (Gould, Shaffer, Fisher, Kleinman and Morishama, 1992; cited in Eskin, 1995). The qualitative aspects of the family environment also have effects on suicide. De Wilde et al. (1992) found that adolescents who attempted suicide differ from both depressed and non-depressed adolescents in that they had experienced more turmoil (physical abuse and problematic life events) in their families, starting in childhood and not stabilizing during adolescence. In Turkey also there were similar studies, like in the study of Yüksel, Özgentaş, Çalangu and Ekşi (1986), it was found that, 51 % of adolescents who had a suicide attempt, had serious family problems, and 1/4 of them came from divorced families. Palabıyıkoğlu, Azizoğlu, Özayar and Ercan (1993) investigated 31 suicide attempters about how they perceive their families compared with 31 controls, and they found that suicide attempters perceived some common themes among their families, including; lack of support and tolerance, undefined roles of the members, and poor family communication especially a defensive communication. Similarly, Ceyhun , Ergin and Durukan (1991) found that, among their sample of 90 suicide attempters aged 15 years, 30 attempters reported serious problems within the family. De Jong (1992) found that 84 students, out of 126 suicide ideator undergraduate students, had a history of family instabilities. Wright (1985), investigated the incidence of serious suicidal thought among 207 high school and 901 college students and found that those considering suicide attempts in both group were more likely than the others to view their parents as having many conflicts with each other, to think of their relationship with their father as poor, and

to see at least one of their parents as either angry or depressed. Recently, Brent, Perper, Moritz, Baugher, Roth, Balach and Schweers (1993) assessed 67 completed adolescent suicides and found that in the year before death suicide completers were more likely to have experienced interpersonal conflict with parents. Some researchers (Rubenstein et al., 1989; Meneese & Yurtzenka, 1990; Choquet, Kovess & Poutignat, 1993; Morano, Cisler & Lemerond, 1993) conceptualized the qualitative aspects of family environment as perceived family support and cohesion, and their studies show that low family support and cohesion are an indicator of increased risk for suicidality among adolescents and young adults. Fremouw, Callahan and Kashden (1993) found that, family cohesion and adaptability were major contributors to the prediction of suicide risk with depression in both of their hospitalized suicidal adolescents, hospitalized adolescents with psychiatric problems, and control groups. Similarly family cohesion was found to offset the effect of stress among 300 high school students (Rubenstein et al., 1989).

School problems contributing to adolescent suicide are academic pressure, disjunction with one's academic achievement, poor academic performance, lack of achievement, and other life events that are related to school life. There is considerable evidence that the suicide rate among college and university students is significantly higher than that among youths not in college and university. With regard to this group in particular, the assumption has prevailed that academic pressures, especially an increasing academic pressure on the students to achieve and maintain, can be a responsible for suicide (Peck et al., 1985). With the beginning of a new life with many unknowns, any causal factor could develop stressful times for

students. This new life also means that old support systems may not be as intact and immediately available especially for students separated from their families and friends. According to Rickgarn (1994) regardless of their own internal or external strengths and support systems, any student who enters a college or university encounters significant stressors. These years are full of with incredible personal, physical, social and sexual changes and complications. Paykel (1989), and Mallinckrodt and Leong (1992 a/b) reported high rates of stress in the lives of college students. Recently, Fagan (1994) examined 240 undergraduate students with social well-being measures. He found that, these students showed signs of moderate to severe stress, especially in terms of depression and concerns about their health and vitality. Similarly Şahin, Rugancı, Taş, Kuyucu and Sezgin (1990) investigated 575 students from three universities of Ankara. They reported that the stress and depression levels of these students were not different from those of the normal university student populations reported in the literature. They found that, % 13 of the students reported high level of depression, %16 reported loneliness, and % 15 reported high rates of stress in their lives. In the literature all of these variables are considered as predictive for suicide ideation and/or attempt. Wolf et al.(1989) found that among freshman medical students, daily hassles were found to be a better predictor of concurrent and subsequent negative mood. These hassles, negative life events and stress for students are related also with suicide ideation and/or attempt. Schotte and Clum (1987) found that college student suicide ideators reported more negative life events over a 6-month period than did non ideators. Rubenstein et al. (1989) reported that achievement pressure was found to be a significant independent risk factor for suicide among 300 high school students. Similarly Dukes

and Lorch (1989) also found that academic achievement and satisfaction with academic achievement were linked to suicide ideation. Dixon et al. (1992) also found a correlation between daily hassles, hopelessness and suicide ideation in a college population. Recently, Clum and Febbraro (1994), found a significant correlation between stressful life events, especially related with college life, and severe suicide ideation among college students.

Interpersonal variables that have been proposed to influence suicide include conflict with friends, disruption of a romantic attachment, loss of love and intimacy between friends. An adolescent and young adult need to establish social relationship with peers. Insufficient contact with peers may result in feelings of loneliness and isolation. Aro, Hanninen and Paronen (1989) reported that lack of the intimacy between friends and conflict with friends were associated with psychosomatic symptoms and psychological well-being among adolescents. Recently, Fagan (1994) reported that, high social well-being was associated significantly with students who viewed themselves as healthy and were integrated with, and concerned about, others. Moreover, low social well-being was associated with students who were in college for primarily instrumental reasons and who lacked social integration. According to the findings of Grob, Klein and Eisen (1983), 80 high school professionals identified that, regarding adolescent suicide, difficulties in peer relationship and economic and ethics differences from other students were important risk factors for suicidal behavior. Lack of social contact with peers is a strong predisposing factor to suicide in youth. Peck (1987) found that, among 455 adolescent suicide victims, interpersonal factors such as intense feelings of

loneliness, recent break up of a romantic relationship, and problems getting along with friends were identified as causal problems for suicide. Similarly Kandel et al. (1991) reported that absence of peer interaction is a causal model which leads to suicidal ideation. Dixon et al. (1992) also found a correlation between daily hassles, including conflict with peers and boy/girl friends, hopelessness and suicide ideation in a college population.

2.5. Protective factors

Every individual is faced with difficulties but some of them, even under severally stressful conditions, do not attempt suicide, whereas others do. There are some factors that protect individuals from suicide.

2.5.1 Reasons for Living

People can generate a large and diverse number of reasons for staying alive when considering suicide. These include the importance of family and children, religious values, beliefs in one's capabilities, the value of living in general, and survival and coping beliefs (Linehan, Goodstein, Nielsen and Chiles,1983; Connell & Meyer,1991). Linehan et al. (1983) developed a scle which assess all these reasons thah were thought to be protective from suicide. They indicated that, Reasons for Living Scale differentiated suicidal from non-suicidal individuals in a normal and a psychiatric inpatients sample. Connell and Meyer (1991) also found that, among 205 college students a significant difference existed between suicidal and non-suicidal individuals on the Reasons For Living Inventory. Recently, Roehrig and Range (1995) reported that Reasons For Living scale showed significant negative

correlations with suicide ideation scores of 155 college students. Two other factors that play an important role in protecting individuals from suicide are cognitive factors and social support.

2.5.2 Cognitive Factors

Cognitive factors include flexibility in thinking styles, using coping mechanism, and having problem - solving skills (Fremouw et al., 1993). Flexibility in thinking style is the contrary to, for example, all or none thinking, over generalization, and predicting or expecting negative aspects of situations. Problem-solving skills were found to be negatively related to depression. Problem-solving skills enable the person to search for information, analyze a situation, generate alternative courses of action, weigh the anticipated outcomes, and select appropriate plans of action (Folkman, Schaefer and Lazarus, 1979; cited in Dixon et al, 1994). Lerner and Clum (1990) reported that problem-solving therapy was significantly effective for reducing depression, loneliness and suicidal ideation. Dixon et al. (1991) investigated 3659 university students with the measures of problem-solving appraisal, negative life events and suicide ideation. They found that problem solving appraisal and negative life stresses were significant predictors of suicide ideation and hopelessness. Recently Dixon et al.(1994) investigated 217 young adults in an intensive outpatient program that targeted suicidal behavior by using variables of hopelessness, problem-solving skills and suicidal ideation. The results indicated a significant effect for problem-solving appraisal in predicting suicidal ideation. Cole (1989) examined depression, hopelessness, survival-coping beliefs in relation to suicidal behaviors in 53 male juvenile delinquents. He found that survival-coping

beliefs were associated with self-predicted future and suicidal behaviors. Recently, Roehrig and Range (1995) also found that among 155 college students, coping beliefs was a significant predictor of suicide ideation. Coping is viewed as a stabilizing factor that can help individuals maintain psychosocial adaptations during stressful periods, and problem-solving skills like generating alternative solutions to problems and anticipating negative consequences for some solutions were found as predictors of suicide severity (Schotte & Clum, 1987; Clum & Febbraro,1994).

2.5.3 Social Support

There is extensive evidence for the role of social support in stress and in suicide. Social support is evaluated as an extremely valuable coping resource. Sarason (1983) defined social support as the existence or availability of people on whom we can rely, people who let us know that they care about and value us. Social support is provided by networks composed of family, relatives, friends, neighbors and coworkers, especially when the interaction is positive. Winefield and Tiggman (1992) found that among 483 adults the social support measures significantly predicted the psychological well-being.

For the association between social support and well-being there are two models that are examined in detail by Cohen and Wills (1985). According to the first model support is related to well-being for persons under stress. This is the "Buffering Model." According to the buffering model support protect persons from influence of stressful events. Support either intervenes between the stressful event and stress reaction by preventing a stress appraisal response or it intervenes between the

experience of stress and the onset of pathological outcome by reducing the stress reaction. The second model suggests that support itself is beneficial regardless of the presence of the stress. Social support is beneficial during non-stressful as well as stressful times. This is the "Main Effect Model." According to this model large social networks provide positive experiences and this kind of support could be related to overall well-being.

The contributions of social support to suicide, depression, and psychological well-being among adolescents have been investigated by a number of investigators. Meehan, Durlak and Bryant (1993) reported that social support was significantly related to positive dimensions of subjective mental health (happiness, gratification, and self-confidence) among high school students. Similarly Hoffman, Levy-Shiff and Ushpiz (1993) indicated that among 84 Israeli adolescents the positive effect of social figures' support on self esteem increased as a function interest in receiving aid from the specific source. . Newcomb and Bentler (1988) investigated longitudinally 654 teenagers with a history of drug and/or alcohol abuse and family problems. They reported that, general social support during adolescence provided a significant amelioration of problem areas four years later. In their review, Heikkinen et al. (1993) indicated that social support was a protective factor and social networks, by providing feelings of necessity and meaning for living, worked against suicide. Among suicide victims social support had been deficient and their networks were disintegrated. Clum and Febbraro (1994) found that social support mediated the relationship between stress and level of suicide ideation. Recently, De Wilde et al. (1992) reported that in their sample of 157 adolescents a high risk group with

suicide attempt was distinguished from the others by reporting less support and understanding from siblings and relations outside the family. There is a relation between social support and the level of depression, hopelessness and suicidal ideation among college students. Mallinckrodt and Leong (1992 a/b) stated that support from the families of graduate students had a positive effect on stress symptoms of the students, and support from their academic programs had both direct and buffering effects. Similarly, Windle and Tutzauer (1992) found that the family support measures correlated significantly with adolescent depressive symptoms. Procidano and Heller (1983) reported that, among 222 university students, perceived support from both friends and family inversely related to symptoms of distress, but the relationship was stronger for family support. They reported that students who received high social support from their friends were significantly lower in trait anxiety and talked about themselves more to friends and siblings than the students who received low support from friends. The findings showed that support from family and friend is a strong predictor of suicide ideation and attempts among adolescents and young adults.

2.6 Aim of the Study

In conclusion of the literature review, it can be said that suicide is a significant event in our lives, especially in young people who show increasing rates, and that depression is the most important predictor of suicide. Depression can be observed mostly during stressful situations which occur following stressful life events and that support from family and friends also are strong predictors of suicide ideation and attempts among adolescents and young adults.

The Turkish university students are reported to be under quite stressful circumstances. Şahin et al. (1990) investigated 575 students from three universities of Ankara. They reported that the stress and depression levels of these students were not different from those of the normal university student populations reported in the literature. They found that % 13 of the students reported high level of depression, %16 reported loneliness, and % 15 reported high rates of stress in their lives. The factors which were related with stress included: course grades, preparation for a presentation or a project, having the responsibility of too many courses, intrapersonal conflicts, and deficiency in problem solving. The author of the present study has been working in the counseling center of a university and her experiences was that Turkish university students were under the stress of some life events which included the family, school, interpersonal problems, and other unpredicted stressful life events. Their depression level was mostly related with the above factors. Moreover, when they feel depressed and lonely without a support from their environment, the suicidal ideation and probability of an attempt increased. As a result, in addition to almost universal problems of the students, specific problems of Turkish students make this group an interesting object of study. With these findings it can be said that to investigate the relationship of these significant factors among the Turkish youth, can give important results about a non - clinic population.

With the increasing rates of attempts and completed suicides, the suicide probability or ideation also is important factor especially for student population. It will be

important to find the likelihood of the suicide ideation or probability, and its predictive and protective variables among a normal student population, in order to see how the suicide ideation and predictive variables happen in a non - clinic sample, and in order to set some prevention programs.

With these findings the purpose of the present study is to investigate the relationship of life events, depression, reasons for living, and social support to the level of suicide probability among Turkish university students. The aim is to find the best predictor of suicide probability among these variables for Turkish university students.

CHAPTER III
METHOD

3.1 SUBJECTS

The present study consisted of two stages. In the first stage 126 university students (53 females and 73 males), living in Ankara, were used for the reliability study of three scales (Life Experience Survey, Perceived Social Support from Friends and Family Scales, and Suicide Probability Scale). The students ranged in age from 17 to 27 with a mean of 19.39 (Sd=1.74). These students were from two universities of Ankara, Sixty-five of the students were from Bilkent University and the rest (61) were from Middle East Technical University. All of the students were at the English preparatory school of these universities. Some socio-demographic characteristics of the these groups are given in Table 1.

Table 1. Socio-demographic characteristics of the sample of the first study (N=126)

	Mean	SD
Age	19.39	1.74
	Frequencies	
Sex		
Male	73	
Female	53	
Faculties		
Engineering	37	
Architecture	13	
Arts and Sciences	13	
Education	9	
Music and Performing Arts	1	
Bureau Management	12	
Tourism	13	
Humanities and Letters	6	

Table 1. continued

Economy, Adm. and Social Sci.	21
Missing	1
Residence [a]	
Village	7
Town	3
City	42
Big city	73
Missing	1
Mother alive	
Yes	124
No	2
Mother's educational level	
Illiterate	3
Literate (no formal schooling)	4
Primary school graduate	20
Middle school graduate	13
High school graduate	43
University graduate	42
Missing	1
Mother's profession	
Housewife	70
Employer	4
Teacher	24
S1(Private jobs; trade, contractor etc.)	2
S2 (Private jobs; lawyer, doctor etc.)	14
Retired	7
Worker	1
Missing	4
Father alive	
Yes	119
No	7
Father's educational level	
Illiterate	0
Literate (No formal schooling)	3
Primary school graduated	13
Middle school graduated	8
High school graduated	23
University graduated	77
Missing	2
Father's profession	
Employer	11
Teacher	10
S1 (Private jobs; trade, contractor etc.)	38
S2 (Private jobs; lawyer, doctor etc.)	42

Table 1. continued

Retired	14
Farmer	3
Missing	8
Parents together	
Yes	113
No	8
Missing	5
Siblings	
Yes	121
No	4
Missing	1
Place of living	
Family	42
Relatives	5
Dormitory	63
Home alone	5
Home with friends	9
Home With Wife	2

[a] For the longest duration of time.

In the main study the sample consisted of 401 university students (203 females, 198 males) living in Ankara. These students were from two universities of Ankara, One hundred and twenty-one of the students were from Bilkent University and the rest (280) were from Middle East Technical University. Students were from different faculties of these two universities. Students ranged in age from 17 to 27 with a mean of 20.88 (Sd=1.81). The majority of them (%90) fell between the ages of 18 and 23. Some socio - demographic characteristics of the main group are given in Table 2.

Table 2. Socio-demographic characteristics of the sample of the main study (N=401)

	Means SD
Age	20.88 1.810
	Frequencies
Sex	
Male	198
Female	203
Faculties	
Engineering	105
Arts and Sciences	73
Education	64
Economy, Adm. and Social Sci.	126
Computer Science	33
Class	
1	118
2	93
3	109
4	81
Residence [a]	
Village	8
Town	29
City	109
Big city	255
Mother alive	
Yes	397
No	4
Mother's educational level	
Illiterate	11
Literate (No formal schooling)	0
Primary school graduate	91
Middle school graduate	27
High school graduate	129
University graduate	133
Mother's profession	
Housewife	216
Employer	26
Teacher	57
S1 (Private jobs; trade, contractor etc.)	7
S2 (Private jobs; lawyer, doctor etc.)	55
Retired	32
Farmer	0
Worker	7
Missing	1

Table 2. continued

Father alive	
Yes	387
No	14
Father's education level	
Illiterate	8
Literate (No formal schooling)	2
Primary school graduate	53
Middle school graduate	22
High school graduate	74
University graduate	241
Missing	1
Father's profession	
Employer	76
Teacher	32
S1 (Private jobs; trade, contractor etc.)	79
S2 (Private jobs; lawyer, doctor etc.)	124
Retired	62
Farmer	6
Worker	16
Missing	6
Parents together	
Yes	367
No	34
Siblings	
Yes	366
No	33
Missing	2
Place of living	
Family	154
Relatives	8
Dormitory	166
Home alone	14
Home with friends	52
Home with siblings	7

[a] For the longest duration of time.

3.2 INSTRUMENTS

The study included the following scales: Beck Depression Inventory (BDI), Life Experience Survey (LES), Perceived Social Support from Family and Friends

Scales (PSS-FA, PSS-FR), Suicide Probability Scale (SPS), Reasons For Living Inventory (RFL), Multidimensional Scale of Perceived Social Support (MSPSS), and the information questionnaire of demographic characteristics of the respondents.

The aim of the first stage of the present study was the reliability study of three scales (Life Experience Survey, Perceived Social Support from Friends and Family Scales, and Suicide Probability Scale). Data from 126 university students were analyzed by using Cronbach's coefficient alpha.

Translation, reliability, and validity studies of the Life Experience Survey (except for the last ten items that are related with the students) were conducted by Aslanoğlu (1985). In the first stage of the present study the last 10 items related with students were translated into Turkish and some of the items (i.e. marriage, death of a spouse, trouble with employer, divorce) that were not related with university students' life were eliminated from the scale. With these new translated items and eliminated items, a new form of the Life Experience Survey is obtained. It is decided to test the reliability of this form of the Life Experience Survey on university students before the main study. The internal consistency reliability (Cronbach's alpha) for the LES total life change score and the negative life change score were found to be .67 and .66, respectively. These results are given in Table 3.

The translation and reliability studies of the Suicide Probability Scale, and Perceived Social Support from Friends and Family Scales were conducted by Eskin (1993).

The subjects of this study were 41 Turks who were living in Stockholm. Seventeen were university students and the remainder were working in white-collar jobs. The size of the sample was small and the subjects were not living in Turkey. Because of these reasons, it was decided to test the reliability of the Suicide Probability Scale and Perceived Social Support from Friends and Family Scales on university students before the main study. The Suicide Probability Scale gave an alpha coefficient of .88. The Cronbach's alpha for the Perceived Social Support from Family scale was .89 , and for the Perceived Social Support from Friends Scale was .85. The values showed good internal consistency for the scales. These results are given in Table 3.

Table 3. Cronbach's Alpha Values of the Scales

Scales	Cronbach's Alpha
Life Experiences Survey (LES)	
Total Score	.67
Negative score	.66
Beck Hopelessness Scale (BHS)	.85
Suicide Probability Scale (SPS)	.88
Perceived Social Support from Family (PSSFA)	.89
Perceived Social Support from Friends (PSSFR)	.85

Besides the reliability study, in order to examine how these scales (Life Experience Survey, Perceived Social Support from Family and Friends Scale, and Suicide Probability Scale) correlate with a reliable and valid scale, correlations with the Beck Hopelessness Scale (BHS) were calculated in the first stage of this present study. The correlations of these scales with the BHS are given in Table 4.

Table 4. Correlations with the BHS

Scales	BHS	SPS	LES	PSSFR	PSSFA
BHS		.68**	.20	-.17	-.44**

*p<0.01, **p<0.001

[a] Negative score

As can be seen from Table 4 the correlation of the Perceived Social Support from Family Scale with the Beck Hopelessness Scale was negative and significant (r = -.44, p<.001). The correlation of Beck Hopelessness Scale and Suicide Probability Scale was significant (r = .68, p <.001). However the Life Experience Survey and Beck Hopelessness Scale and the Perceived Social Support from Friends Scale and Beck Hopelessness Scale did not correlate significantly. Because of this reason in the main study, the correlations of Life Experience Survey and Perceived Social Support from Friends with another reliable and valid scale, Beck Depression Inventory were calculated. The correlation of the Perceived Social Support from Friends Scale with the Beck Depression Scale was negative and significant (r = -.37, p<.001). The correlation of Life Experience Survey and Beck Hopelessness Scale was significant (r = .34, p <.001).

3.2.1 Beck Depression Inventory (BDI)

The first version of the BDI was developed by Beck, Ward, Mendelson, Mock and Erbaugh (1961) and it was revised in 1978 (Beck, Rush, Shaw & Emery, 1979) to present clearer statements for self administration and to permit simpler scoring. The 1978 version of BDI is a self-report assessment scale containing of 21 items that are rated from 1 to 3 in terms of intensity. The ratings are summed to calculate the total

depression score that ranges from 0 to 63, with a higher score indicating a higher depression. Items of the inventory cover the affective, motivational, somatic, psychomotor, vegetative, and cognitive dimensions of depression. It is probably the most widely used instruments in studies related to depression (Beck, Steer & Garbin, 1988).

Translation and reliability studies of the 1978 version of the BDI were conducted by Tegin (1980) and the validity studies were conducted by Aydın and Demir (1989) and by Hisli (1988) on Turkish samples. Tegin reported that the test-retest reliability of the inventory in a normal sample was .65 and the internal consistency, estimated by the split - half reliability coefficient, was .78 in a normal sample and .61 in a depressed sample. The split-half reliability coefficient was found to be. 74 in a sample of university students by Hisli (1989). Its concurrent validity, calculated with the use of the Depression Subscale of the Minnesota Multiphasic Personality Inventory, was .63 and .50 in student and psychiatric samples, respectively (Hisli, 1988).

3.2.2 Life Experience Survey (LES)

LES was developed by Sarason, Johnson and Siegel (1978). It is a 57 item (the last 10 items are for students only) self-report measure of life stress that allows the respondents to indicate the occurrence of any of 57 experiences in the past 6 months and 1 year. Although the Life Experience Survey provides for the assessment of life change occuring during two 6 - month intervals, in this present study all analyses to date have involved change scores based on the entire preceding

12 - month period. The respondents are asked to indicate those events experienced during the past year (between 0-6 months or 7 months-1 year) as well as (a) whether they viewed the event as being positive or negative and (b) the perceived impact of the particular event on their life. Ratings are on 7-point scales ranging from extremely negative (-3) to extremely positive (+3). Summing the impact ratings of those events designated as positive by the subject provides a "positive change score". A "negative change score" is derived by summing the impact ratings of those events experienced as negative by the subjects. By adding these two values, a "total change score" can be obtained. As Sarason et. al (1978) has indicated that positive life events are unrelated to depressive symptoms, in this present study, it is examined only scores reflecting negative life events.

The scale has shown (Sarason et al., 1978) adequate test-retest reliability over the duration of 5 weeks (.63) and 6 weeks (.64). Its concurrent validity, for negative scores, calculated with the use of the Stait - Trait Anxiety Inventory and Beck Depression Inventory. They have been found to correlate significantly in the expected direction with these variables.

LES was based on the assumption that individuals perceive events differently and that overall life change may not reflect the actual amount of stress resulting from the experience of the specific event. So it is important to individualize the ratings of the desirability of events that they experienced. Negative life change scores have been found to correlate in the expected direction with a large number of variables (i.e.,

anxiety, academic achievement, social desirability, personal maladjustment, depression, locus of control, and patient status; Sarason et al., 1978).

Translation, reliability and validity studies of LES (except for the last 10 items that are related with students) were conducted by Aslanoğlu (1985). In his study, following the translation of the scale, some other life event items which were thought to be related to our culture were added to the original scale. The test-retest reliability was. 83 over a six week period, and negative and total life change scores have been found to correlate significantly in the expected directions with the State-Trait Anxiety scale.

In the present study, the last 10 items related with students were translated into Turkish and some of the items (i.e. marriage, death of a spouse, trouble with employer, divorce) that were not related with university students' life were eliminated from the scale. In the first stage of the present study, the Cronbach's alpha for the LES total life change score and the negative life change score were found to be .67 and .66, respectively. The reliability figures and the correlation coefficients of the LES with the BHS are given in Table 3 and Table 4, respectively.

3.2.3 Perceived Social Support from Family and Friends (Pss-Fa and Pss-Fr)

Pss-Fa and Pss-Fr scales were developed by Procidano and Heller (1983). They were intended to measure the extent to which an individual's perception of his/her needs for support, information and feedback were fulfilled by friends and family. Each scale consists of 20 statements to which the individual responds with three

response alternatives, "Yes", "No", and "Do not know." For each item, the response indicative of perceived social support is scored as +1. "Do not know" category is not scored. Scores range from 0, which indicates no perceived social support to 20, which indicates maximum perceived social support as provided by friends or family.

Procidano and Heller (1983) reported high reliability and validity figures for college students. Cronbach's alpha was .88 and .90 for the Pss-Fr and Pss-Fa scales, respectively, and the scales have been found to correlate significantly in the expected direction with some relevant variables, such as, life stress, symptomatology, and anxiety.

The translation and reliability studies of the Pss-Fr and the Pss-Fa have been conducted by Eskin (1993) in a Turkish sample (N=41) who were living in Stockholm. The test - retest reliability of the Pss-Fr was.80 and that for Pss-Fa was.90. The average interval between the administrations was 47.8 days.

In the present study the Cronbach's alpha for the Pss-Fa scale was found to be .89 and that for the Pss-Fr scale was found to be .85. Social support scores Pss-Fa correlated significantly in the expected direction with the hopelessness variables (Beck Hopelessness Scale), but Pss-Fr did not correlate significantly with the hopelessness variable. However in the main study Pss-Fr correlated significantly with the depression variable (Beck Depression variable). These results are given in Table 3 and Table 4.

In the present study, when the items of the Perceived Social Support from Family and Friends Scales were evaluated, it was found that the items were associated with both perceiving one self as receiving support from friends and family, and perceiving one self as providing support to the friends and family. It is decided to conduct a factor analyses to examine the dimensionality of Perceived Social Support from Family Scale and Perceived Social Support from Friend Scale separately.

A principle components factor analysis with varimax rotation was carried out on Perceived Social Support from Family Scale and Perceived Social Support from Friend Scale separately.

For the Perceived Social Support from Family the items loaded on three factors. The name of the factors are given by the investigator of the present study.

(a) Factor one, *Received family support (FAREC)* received high loadings from items associated with trust toward family, receiving emotional and instrumental support, and feedback (1, 2, 5, 8, 11, 13), and the quality of family relations (3, 4, 14).

(b) Factor two, *Provided family support (FAPRO)* received high loadings from items associated with the trust of the family on the individual, providing emotional and instrumental support, and feedback to the family (7, 12, 15, 17, 18), and communication (9, 16).

(c) Factor three, *Family intimacy (FAINTIM)* received high loadings from items associated with intimate and private relations with the family (6, 16, 19, 20).

The three factors obtained, accounted for 47 % of the total variance. (See Table 5 in Appendix A, for the factor loadings).

Cronbach's alpha of the three factors and the item total correlation values are computed for the Perceived Social Support from Family subscales. The Cronbach's alpha values for Received Family Support, Provided Family Support, and Family Intimacy were, .83, .78, and .45, respectively. Item total correlation values, except for the item 6 of the Family Intimacy subscale, showed good internal consistency for the subscales (See Table 6 in Appendix A, for the Cronbach's alpha and item total correlation of the Perceived Social Support from Family Scale subscales). To examine the construct validity of the subscales, correlations with BDI were calculated (see page 73 Table 14). Correlation scores were, -.40 with Received family support, -.38 with Provided family Support, and -.28 with Family intimacy. All the correlations were negative, as expected, and significant at $p<.001$.

For the Perceived Social Support from Friends the items loaded on three factors.

(a) Factor one, *Received friend support (FRREC)*, received high loadings from items associated with trust toward friends, receiving emotional and instrumental support, and feedback (1, 5, 8, 10, 12, 19), and the quality of friendship relations (9, 13, 15).

(b) Factor two, *Provided friend support (FRPRO)*, received high loadings from items associated with the trust of the friends on the individual, and providing emotional and instrumental support, and feedback to the friends (4, 6, 11, 14, 17).

(c) Factor three, *Friend intimacy (FRINTIM)* received high loadings from items associated with intimate and private relations (2, 3, 7, 16, 18, 20).

The three factors obtained, accounted for 48.6 % of the total variance (See Table 7 in Appendix A, for the factor loadings).

Cronbach's alpha of the three factors and the item total correlation values are computed for the Perceived Social Support from Friends subscales. Both the Cronbach's alpha and item total correlation values showed good internal consistency for the subscales. The Cronbach's alpha values for Received Friend Support, Provided Friend Support, and Friend Intimacy were, .84, .68, and .80, respectively (See Table 8 in Appendix A, for the Cronbach's alpha and item total correlation of the Perceived Social Support from Friends Scale subscales). To examine the construct validity of the subscales, correlations with BDI were calculated (see page 73 Table 14). Correlations were, -.32 with Received friend support, -.25 with Provided friend support, and -.35 with Friend intimacy. All the correlations were negative, as expected, and significant at $p<.001$.

3.2.4 Suicide Probability Scale (SPS)

Cull and Gill (1988) developed the SPS as a self-report measure of suicide potential to be used with adolescents and adults (Cull & Gill, 1988; cited in Eskin, 1995). The respondents rate each item on a 4-point scale that ranges from "None or a little of the time" (1) to "Most or all of the time" (4) to indicate the frequency with which he or she experiences a specific emotion or behavior. It combines the emotionel,

behavioral, and cognitive components in suicide. The SPS consists of four empirically derived subscales: (1) Hopelessness-12 items, (2) Suicide Ideation-8 items, (3) Negative Self -evaluation-9 items, and (4) Hostility-7 items. The SPS provides a risk (probability) score with a higher score indicating a higher probability for suicide.

Both the full scale and the subscales have evidence of adequate psychometric properties across both clinical and nonclinical samples (including psychiatric inpatients, suicide attempters, and a nonpsychiatric control group) (Cull and Gill, 1982; cited in Dixon et al., 1994). The estimated internal consistency reliability for the total scale was high for all samples (Cronbach's alpha=.93). The SPS was also found to provide a fairly stable result over a 3 week period, with a test-retest coefficient of .92 for individuals expressing no overt suicidal ideation. It has also demonstrated high concurrent, construct, and discriminate validity (Cull and Gill, 1982; cited in Dixon et al.,1994).

The scale was translated into Turkish by Eskin (1993). During the translation 2 items were modified slightly for use with adolescents. The SPS total scale gave a test-retest reliability coefficient of .95, the average interval between the administrations being 47.8 days, and the Cronbach's alpha was.89.

In the present study, the Cronbach's alpha for the SPS scale was found to be .88. Suicide probability scores were found to correlate significantly in the expected

direction with the hopelessness variable (Beck Hopelessness Scale). These results are given in Table 3 and Table 4.

To test the existence of the four subscales of the Suicide Probability Scale in this sample a principle components factor analysis with varimax rotation was carried out.

For the SPS, 4 factors were obtained, but the loadings of the items were different from the original 4 factors of Cull and Gill (Cull & Gill, 1988; cited in Eskin, 1995). Original factors were:

(a) Hopelessness 12 items (5, 12, 14, 15, 17, 19, 23, 28, 29, 31, 33, 36)

(b) Suicide Ideation 8 items (4, 7, 20, 21, 24, 25, 30, 32)

(c) Negative Self - Evaluation 9 items (2, 6, 10, 11, 18, 22, 26, 27, 35)

(d) Hostility 7 items (1, 3, 8, 9, 13, 16, 34).

Since the loadings of the items were different from the original factors, new names were given to the factors that were obtained in the present study. These names were given by the investigator of the present study.

(a) Factor one, *Suicidal thought (SUITHO)* received moderate loadings from items associated with cognitive and behavioral components of suicide ideation (7, 21, 24, 25, 30, 32), and hopelessness, and negative thoughts about future and the others (17, 28, 29, 36).

(b) Factor two, *Negative self thought (SELFTH)*, received moderate loadings from items associated with hopelessness, and negative thoughts about the others (23,

31), hostility and anger feelings toward oneself and the others (9, 13, 16), and negative self evaluation about relation with others, and negative thoughts about self - efficacy (2, 6, 10, 11,18, 22, 26, 27, 35).

(c) Factor three, *Exhaustion (EXHA)* received high loadings from items associated with hopelessness about future and oneself (5, 14, 15, 19, 33), and suicide ideation (20).

(d) Factor four, *Anger (ANGER)*, received high loadings from items associated with hostility toward oneself and the others(1, 3, 8, 34), and suicide ideation (4).

The four factors obtained, accounted for 42.6 % of the total variance. (See Table 9 in Appendix A, for the factor loadings).

Cronbach's alpha of the four factors and the item total correlation values are computed for the Suicide Probability Scale subscales. Both the Cronbach's alpha and item total correlation values showed good internal consistency for the subscales. The Cronbach's alpha values for Suicidal thought, Negative self thought, Exhaustion, and Anger subscales were, .87, .84, .66, and .65, respectively (See Table 10 in Appendix A, for the Cronbach's alpha and item total correlations of the Suicide Probability Scale subscales). To examine the construct validity of the subscales, correlations with BDI were calculated (see page 73 Table 14). Correlations were, .68 with Suicidal thought, .63 with Negative self thought, .53 with Exhaustion, and .42 with Anger. All the correlations were significant at $p<.001$.

3.2.5 Reasons for Living Inventory (RFL)

This is a 48 item 6-point Likert scale that measures both positive and negative reasons for not committing suicide. It is developed by Linehan et al. (1983). It has six subscales, namely, survival and coping beliefs, responsibility to family, child related concerns, fear of suicide, fear of social disapproval and moral objections. Linehan et al. (1983) found that the Cronbach's alphas of the six subscales range from .72 to .89. Evidence of convergent, discriminant, and construct validity for the RFL in general and delinquent adolescent populations was reported by Cole (1989). It is said to have several advantages over other research instruments that measure cognitive components of suicide: it has a positive focus, has subscales that provided detailed information, and provides high reliability and validity (Linehan et al., 1983).

The RFL was adapted for Turkish youth and adults by Durak, Yasak-Gültekin and Şahin (1993). The Turkish version is a 70 item 6-point Likert type scale. Forty-seven items were borrowed from the original scale and the rest were added by Durak et al. (1993) on the basis of a pilot study. The total score range is between 70-420 with a higher score indicating more reasons for living. Through factor analysis it was found to have 6 factors: General optimism, moral and religious values, responsibility and love for family/friends, fear of aftermath of suicide, joy of life and living, and fear of death.

Durak, Yasak-Gültekin and Şahin selected 28 items, from the adapted RFL (Durak et al, 1993), that were thought to be the best predictors of reasons for living in the Turkish sample. The RFL used in the present study is a 28 item 6-point Likert type scale. The score range is between 28-168.

3.2.6 Multidimensional Scale of Perceived Social Support

The MSPSS was developed by Zimet, Dahlem, Zimet and Farley (1988). It is a simple, brief scale of subjective assessment of the adequacy of social support from three specific sources: family, friends and a significant other. It is a 12 item scale with 4 items for each source of support. Each item is rated on a 7-point scale ranging from disagree very strongly (1) to agree very strongly (7). Higher scores indicate higher perceived social support.

The internal consistencies of the total score and the subscales, Friend, Family, and Significant were high, ranging between .79 and .98 in various samples (Kazarian & McCabe, 1991; Zimet et al., 1988, 1990) and the test-retest reliability over a 2 to 3 months period gave correlations ranging between .72 and.85 (Zimet et al., 1988).

The translation and psychometric properties of the scale have been studied in Turkish culture by using different samples; university students and a hospital sample consisting of four groups: a group of university students applying to the university health center for psychiatric/psychological reasons, patients from the department of psychiatry, patients with kidney problems and a randomly selected group of visitors (normals) (Eker & Arkar, 1995). As the measure of reliability, the Cronbach's alpha

of the total score and the subscales were high, ranging between .85 and .91 for university students, and showed good internal consistency for the subscales (family, friends, and significant other) and the total scale in all samples. In terms of construct validity the MSPSS and its subscales have also demonstrated significant negative correlations with BDI in the university sample. The total score of the MSPSS also demonstrated significant correlations with the Stait-Trait Anxiety Inventory in the other samples.

To test the existence of the three subscales of the Multidimensional Scale of Perceived Social Support in this sample a principle components factor analysis with varimax rotation was carried out.

For the Multidimensional Scale of Perceived Social Support the 12 items loaded on the factors for which they were intended, as in the original research by Zimet et. al, 1988 and as in the Turkish adaptation study by Eker and Arkar 1995. Three factors were obtained. These were:

(a) Factor one *Friend (FRIEND)* received high loadings from items associated with the adequacy of support from friends (6, 7, 9, 12).

(b) Factor two *Family (FAMILY)* received high loadings from items associated with the adequacy of support from family (3, 4, 8, 11)

(c) Factor three *Significant (SIGNIFICANT)* received high loadings from items associated with adequacy of support from the significant other (1, 2, 5, 10).

The three factors obtained, accounted for 78.3 % of the total variance (See Table 11 in Appendix A, for the factor loadings).

Cronbach's alpha of the three factors and the item total correlation values are computed. Both the Cronbach's alpha and item total correlation values showed good internal consistency for the subscales. The Cronbach's alpha values of Friend, Family, and Significant subscales were, .91, .87, and .93, respectively (See Table 12 in Appendix A, for the Cronbach's alpha and item total correlation of the Multidimensional Scale of Perceived Social Support subscales). To examine the construct validity of the subscales, correlations with BDI were calculated (see page 73 Table 14). Correlations were, -.36 with Friend, -.41 with Family, and -.37 with Significant other. All the correlations were negative, as expected, and significant at $p<.001$.

3.2.7. The information questionnaire of demographic characteristics

This questionnaire was prepared by the investigator to gather information about the demographic, and family characteristics of the subjects (See Appendix B). This questionnaire consited of 13 questions. Some of these questions were "multiple choice" type and some were "fill in the blanks" type of questions.

3.3 PROCEDURE

The instruments described above were administered together as a set by the investigator of the present study. The first page of the set included a general introduction, aim of the study, and the work telephone and address of the investigator, and the second page consisted of questions concerning the

demographic characteristics of the respondents. The order of the scales/inventories was randomized for each subject in order to control for the order effect.

The study consisted of two stages. The aim of the first study was to examine the reliabilities of three of the scales (Pss-Fr Pss-Fa, SPS, and LES). The first stage of the study was conducted during the second semester of 1995-96 academic year. The scales were administered to the students during regular class hours of the English preparatory schools of Bilkent and Middle East Technical Universities. In Bilkent University the permission was obtained from the Dean of Students and the Head of the English preparatory school. The classes were determined by the Preparatory school's student counselor. In the Middle East Technical University the permission was obtained from the Head of the Preparatory school and the classes were determined by the school. An attempt was made to use a variety of classes in order to obtain a heterogeneous sample as much as possible.

The main study was conducted during the two semesters of 1996-97 academic year. Again the scales were administered during regular class hours of different faculties. In the Middle East Technical University all the faculties (Arts and Sciences, Education, and Economy Administration Social and Political Science) that were formally contacted accepted to participate. In Bilkent university, however, the faculty of Engineering did not accept to participate in the study. Therefore, the sample size of Bilkent University is less than that of the Middle East Technical University. Various faculties and courses were attempted to be selected in order to obtain a heterogeneous sample as much as possible. Some instructors in the Middle

East Technical University gave 1 point that would be added to the final scores of those who participated in the study. Participation was on a voluntary basis and almost all of those who were asked agreed to participate, and help was provided when it was necessary. The completion of the scales/inventories took about 30-40 minutes.

3.4 ANALYSIS OF DATA

To compare the male and female samples with respect to depression, suicide probability, life events, social support and reasons for living scores, the t-test analysis was conducted.

In order to investigate the predictive effect of depression, life events, social support, and reasons for living on suicide probability, stepwise multiple regression analysis was applied. Depression, life events, social support, reasons for living scores, and some demographic variables that were correlated with suicide probability subscales, were taken as the independent variables, and the scores of subscales of the Suicide Probability Scale were taken as the dependent variable.

All the statistical analyses of this study were conducted by using the Statistical Package for Social Sciences (SPSS). (Norusis, 1986).

CHAPTER IV

RESULTS

In this study, data from 401 (203 females, 198 males) university students from Bilkent University and Middle East Technical University were analyzed. One hundred and twenty-one of the students were from Bilkent University and the rest (280) were from Middle East Technical University. Students were from different faculties of these two universities. Students ranged in age from 17 to 27 with a mean of 20.88 (Sd=1.810). The majority of them (%90) fell between the ages of 18 and 23. All the students were administered the six scales; Life Experience Survey (LES), Suicide Probability Scale (SPS), Perceived Social Support from Friends and from Family (Pss-Fr, Pss-Fa), Multidimensional Scale of Perceived Social Support (MSPSS), Reasons For Living (RFL) Beck Depression Inventory (BDI), and the information questionnaire of demographic characteristics. The means and standard deviations of the scales and subscales are given in Table.13

TABLE 13. Means and Standard Deviation

Variables (N=401)	M	SD
Life Experience Survey	12.027	10.271
Suicide Probability Scale	63.725	13.845
Suicidal Thought	13.423	4.401
Negative self thought	29.800	7.313
Exhaustion	12.808	3.141
Anger	7.713	2.224
	13.469	5.096
Perceived Social Support from Family		
Received family support	6.696	2.527

Table 13. continued

Provided family support	4.471	2.255
Family intimacy	2.302	1.225
Perceived Social Support from Friend	14.947	4.975
Received friend support	6.945	2.478
Provided friend support	3.838	1.370
Friend intimacy	4.160	1.931
Multidimensional Scale of Perceived Social Support	64.486	14.481
Friend	22.248	5.528
Family	22.047	5.646
Significant	20.229	7.523
Reasons for Living	127.624	21.635
Beck Depression Inventory	10.768	8.315

4.1 T-test Analysis

To compare the male and the female samples with respect to depression, suicide probability, life events, social support and reasons for living scores, t-test analyses were conducted. There was a significant difference at the p = .001 level between the two groups on the Suicide Probability Scale (t=3.60, df=398, p<.001), with the male population (M=66.2071, SD=14.371) having the higher suicide probability scores than females (M=61.2921, SD=12.886). Similarly, there was a significant difference at the p = .001 level between the two groups on the Reasons for Living (t=4.64, df=397, p<.001) with the female population (M=132.4703, SD=19.405) having the higher reasons for living scores than males (M=122.6548, SD=22.701). It was observed that females (M=66.5323, SD=14.373) had significantly higher scores than males (M=62.4091, SD=14.329) for the Multidimansional Scale of Perceived Social Support scores (t=2.87, df=397, p<.01), had significantly higher

scores (M=15.6683, SD=4.920) than males (M=14.2121, SD=4.936) for the Perceived Social Support from Friends scores (t=2.95, df=398, p<.01), and had significantly higher scores (M=14.0788, SD=5.318) than males (M=12.8434, SD=4.791) for the Perceived Social Support from Family scores (t=2.45, df=399, p<.05). There were no significant differences between the two groups on the level of depression and life event scores.

4.2 Regression Analyses

In order to investigate the predictive effects of depression, life events, social support, and reasons for living on suicide probability, the stepwise multiple regression analysis was used. The scores on depression, life events, social support, and reasons for living scores, and some demographic variables were taken as the independent variables, and the suicide probability scores as the dependent variable. Before multiple regression analyses, intercorrelations for all the variables were calculated. All the independent variables revealed significant correlations with the subscales of suicide probability scale. These results are given in Table 14.

Table 14. Intercorrelation Among Main Study Scales

Scales	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1.Les		.17**	.29**	.33**	.21**	-.23**	-.19**	-.23**	-.16**	-.06	-.18**	-.15*	-.19**	-.06	-.02	.34**
2.Suitho			.68**	.44**	.47**	-.37**	-.34**	-.23**	-.34**	-.33**	-.34**	-.39**	-.40**	-.35**	-.41**	.68**
3.Selfth				.40**	.45**	-.53**	-.49**	-.40**	-.53**	-.44**	-.57**	-.58**	-.53**	-.45**	-.45**	.63**
4.Exha					.37**	-.25**	-.26**	-.17**	-.18**	-.21**	-.21**	-.20**	-.26**	-.24**	-.14**	.53**
5.Anger						-.25**	-.26**	-.20**	-.28**	-.23**	-.21**	-.30**	-.27**	-.20**	-.19**	.42**
6.Farec							.60**	.51**	.22**	.20**	.25**	.23**	.75**	.22**	.27**	-.40**
7.Fapro								.50**	.29**	.33**	.28**	.24**	.53**	.22**	.31**	-.38**
8.Faintim									.22**	.18**	.22**	.17**	.46**	.13*	.14*	-.28**
9.Frrec										.52**	.68**	.70**	.23**	.37**	.29**	-.32**
10.Frpro											.55**	.52**	.18**	.35**	.25**	-.25**
11.Frintim												.67**	.23**	.40**	.26**	-.35**
12.Friend													.31**	.54**	.35**	-.36**
13.Family														.29**	.27**	-.41**
14.Significant															.25**	-.37**
15.Rfl																-.34**
16.Bde																

*p<0.01, **p<0.001

Together with these independent variables, some demographic variables which correlated significantly with suicide probability were taken as independent variables. In order to determine these demographic variables, intercorrelations for all of the demographic variables with suicide probability were calculated. (See Table 15 in Appendix A).

Five of the demographic variables were correlated at $p = .001$ with suicide probability. These are, sex, mother's education, mother's profession, father's education and extended family member who live in the house. Each of them was taken as a predictive variable of suicide probability.

The major aim of the present study was to investigate the predictive effect of depression, life events, social support, and reasons for living on suicide probability. These variables and selected demographic variables were taken as independent variables and the subscales of the suicide probability scale were taken as the dependent variable. The stepwise multiple regression analysis was used for each of the subscales of suicide probability.

In Table 16 the independent variables that predicted the scores of the Negative Self Thought Subscale of Suicide Probability Scale are given.

Table. 16 Results of Stepwise Regression for Negative Self Thought Subscale of Suicide Probability Scale

Independent Variables	Dependent Variable:Negative Self thought			
	r	Beta	Rsquare	F
Beck Depression Inventory	.63	.32	.40	263.20**
Friend (MSPSS)	.73	-.19	.14	235.39**
Received Family Support (PSS-FA)	.78	-.15	.07	208.06**
Friend Intimacy (PSS-FR)	.79	-.22	.02	171.61**
Sex	.80	.09	.01	144.28**
Reasons for Living	.81	-.10	.007	123.84**
Family Intimacy (PSS-FA)	.81	-.08	.005	108.45**
Family (MSPSS)	.81	-.10	.004	96.34**

** $p<0.001$

As it can be seen from Table 16, 8 of the independent variables appeared as significant predictors, explaining 66 % of the total variance in the Negative Self Thought score. The depression score was the best predictor of negative self thought, explaining 40 % of the variance. As the depression score increased suicide probability due to negative thoughts about one's self also increased. The second predictor was the Friend subscale of Multidimensional Scale of the Perceived Social Support, explaining 14 % of the total variance in Negative Self Thought Subscale. As the perceived social support from friends increased, suicide probability due to negative thoughts about one's self decreased. The third predictor was the Received Family Support Subscale of the Perceived Social Support from Family, explaining 7 % of the total variance in Negative Self Thought Subscale. As the perceived social support and trust received from

the family increased, suicide probability due to negative thoughts about one self decreased. the fourth predictor was the Friend Intimacy Subscale of the Perceived Social Support from Friend, explaining 2 % of the total variance in the Negative Self Thought Subscale. As the perceived intimacy feelings from friends increased, suicide probability due to negative thoughts about one's self decreased. The fifth predictor was sex explaining 1 % of the total variance in negative self thought subscale. When the sex variable was analyzed, it was found that the male sample (M=31.27, SD=7.32) had the higher negative self thought scores than females (M=28.37, SD=7.03). The other predictors were the Reasons for Living, the Family Intimacy Subscale of the Perceived Social Support from Family, and the Family Subscale of the Multidimensional Scale of Perceived Social Support, explaining less than 1 % of the total variance in negative self thought subscale.

In Table 17 the independent variables that predicted the scores of the Suicidal Thought Subscale of Suicide Probability scale are given.

Table. 17 Results of Stepwise Regression for Suicidal Thought Subscale of Suicide Probability Scale

Independent Variables	Dependent Variable: Suicidal thought			
	r	Beta	Rsquare	F
Beck Depression Inventory	.69	.56	.47	354.28**
Reasons for Living	.71	-.16	.03	203.49**
Provided Friend Support (PSS-FR)	.72	-.13	.02	145.11**
Family (MSPSS)	.73	-.11	.01	112.77**

** $p<0.001$

As it can be seen from Table 17, only 4 independent variables appeared as significant predictors, explaining 53 % of the total variance in the Suicidal Thought score. The depression score was the best predictor of suicidal thought, explaining 47 % of the variance. As the depression score increased suicide probability due to suicidal thought also increased. The second predictor was the Reasons for Living, explaining 3 % of the total variance in the Suicidal Thought Subscale. As the reasons for living increased, suicide probability due to suicidal thought decreased. The third predictor was the Provided Friend Support Subscale of the Perceived Social Support from Friends, explaining 2 % of the total variance in Suicidal Thought Subscale. When the individual perceived him/herself as providing support to his/her friends, suicide probability due to suicidal thought decreased. The fourth predictor was the Family Subscale of the Multidimensional Scale of Perceived Social Support, explaining 1 % of the total variance in Suicidal Thought Subscale. As the perceived social support from family increased, suicide probability due to suicidal thought decreased.

In Table 18 the independent variables that predicted the scores of the Anger Subscale of the Suicide Probability are given.

Table. 18 Results of Stepwise Regression for Anger Subscale of Suicide Probability Scale

Independent Variables	Dependent Variable:ANGER			
	r	Beta	Rsquare	F
Beck Depression Inventory	.42	.33	.18	87.60**
Friend (MSPSS)	.45	-.16	.03	51.84**

Table 18. continued

Provided Family Support (PSS-FA)	.46	-.10	.01	36.17**

** p<0.001

As it can be seen from Table 18, only 3 independent variables appeared as significant predictors, explaining 22 %of the total variance in the Anger score. The depression score was the best predictor of anger, explaining 18 % of the variance. As the depression score increased, suicide probability due to feelings of anger also increased. The second predictor was the Friend Subscale of the Multidimensional Scale of Perceived Social Support, explaining 3 % of the total variance in the Anger Subscale. As the perceived social support from friends increased, suicide probability due to feelings of anger decreased. The third predictor was Provided Family Support Subscale of the Perceived Social Support from Family, explaining 1 % of the total variance in anger subscale. When individual perceived him/herself as providing support to his/her family, suicide probability due to feelings of anger decreased.

In Table 19 the independent variables that predicted the scores of the Exhaustion Subscale of Suicide Probability Scale are given.

Table. 19 Results of Stepwise Regression for Exhaustion subscale of Suicide Probability Scale

Independent Variables	Dependent Variable:Exhaustion			
	r	Beta	Rsquare	F
Beck Depression Inventory	.53	.46	.28	155.23**
Mother's Education	.55	-.14	.03	87.84**
Life Experience Survey	.57	.14	.02	63.51**

** p<0.001

As it can be seen from Table 19, only 3 independent variables appeared as significant predictors, explaining 33 % of the total variance in the Exhaustion score. The depression score was the best predictor of exhaustion, explaining 28 % of the variance. As the depression score increased suicide probability due to feelings of exhaution also increased. The second predictor was mother's education, explaining 3 % of the total variance in the Exhaustion Subscale. When the mother's education variable was analyzed, it was found that there were significant differences at the .05 level among the three groups on the mother's education scores ($F=5.134$, $df=5, 395$, $p<.05$), the students with mothers who were literate (no formal schooling) ($M=15$) had higher exhaustion scores than those with mothers who were primary school graduate ($M=14$), mothers who were high school graduate ($M=13$), and mothers who were university graduate ($M=11$). As the education level of the mother decreased, suicide probability due to feelings of exhaustion increased. The third predictor was the Life Experience Survey, explaining 2 % of the total variance in the Exhaustion Subscale. When the rate of the occurrence of negative life events increased for a student, suicide probability due to feelings of exhaustion increased.

CHAPTER V

DISCUSSION

The purpose of the present study was to investigate the relationship of life events, depression, reasons for living, and social support to the level of suicide probability among Turkish university students. The rates of completed and attempted suicide, and the occurrence of suicide ideation were high among 15-24 years old, both in the world and in Turkey. Furthermore, the aim was to find the best predictor of suicide probability among these variables for Turkish university students.

The two sexes were compared on all the variables. For Suicide Probability Scale, it was found that male students had significantly higher suicide probability scores than females. There was an agreement among studies of suicide about the fact that for male adolescents and young adults the rate of completed suicide was higher than females but the rate of attempted suicide was higher among females (Rickgarn, 1994; Diekstra, 1989). However, the rates of suicide ideation or probability were investigated much less and the results of these studies were different. Contrary to this study findings, Rudd (1989) found that among 737 college students males and females had experienced suicide ideation at the same levels. Similarly, Sherer (1985) also reported that, of the 149 college students, males and females did not differ

significantly in their self ratings of suicidal ideation. However, in Netherlands Kienhorst et. al (1990) found that among nearly 10.000 surveyed students, 5.2 % of the females had ideation of suicide compared with 2.2 % of the males. For Reasons for Living scores, it was found that female students had significantly higher scores than males. Similarly, for Perceived Social Support from Family and Friends Scales, female students had significantly higher scores than males. For the Multidimensional Scale of Perceived Social Support, female students had also significantly higher scores than males. Similar to these findings, Eker and Arkar (1995) reported that in their study, for the university sample, female students had higher scores than male students on the MSPSS. It is may be that when student are exposed to high levels of stress and feel depressed, female students seek social support from their environment as a coping mechanism more than males (Houtman, 1990; Rim, 1990). The difference of female students' scores on social support from those of the male students for the present study is in agreement with this view. For the Beck Depression Inventory and Life Experience Survey scores however, the female and male students of this study did not differ.

As a result of the multiple regression analyses, it was found that depression was the most powerful predictive factor (for all the subscales) of suicide probability. These subscales were suicidal thought, negative self thought, anger, and exhaustion. The predictive effect of depression for suicide probability is in agreement with other studies done with adolescents and young adults. The

existence of a relationship between depression and suicidal behavior in adolescents is well-established. In both referred samples and sample surveys a correlation was found between suicide ideation, suicide attempts, and suicide on the one hand, and a depressed mood or a depressive syndrome on the other. Kandel et al. (1991) found that, among 597 high school students, depressive symptoms were the strongest predictors of suicide ideation. Recently, Herman and Lester (1994) also found that, depression score was found to be the best predictor of suicide ideation among 97 high school students. Similarly, Howard-Pitney, LaFromboise, Basil September and Johnson (1992) reported, on a sample of 84 adolescents (suicide attempters and non-attempters), significant correlations between suicidal thought, depression, stress, past attempt behavior, drug use, and social support. Attempters had higher suicide ideation and depression compared to non-attempters. Westefeld and Furr (1987) reported, by relaying on students' self-reports, that 4.4 % of college students had a lifetime history of attempted suicide, 31.9 % had considered suicide, and 80.8 % had been depressed (Westefeld and Furr,1987; cited in Westefeld et al., 1990). Lester and Miller (1990), in a study of college students, also reported that among 616 students, 3.7 % were found to be seriously depressed and 22.6 % had some current suicidal thought. Sherer (1985) also found that 15.5 % of 149 college students were found to be seriously depressed as posing risk of suicide. Connell and Meyer (1991) found a significant correlation between depression scores and suicidal behaviors among 150 college students. Cole (1989) investigated depression and suicidal behaviors

among 128 high school student and 53 male juvenile delinquents. He reported that depression was significantly related to suicidal behavior for high school students and that depression was uniquely related to past suicidal attempt of delinquent adolescents.

Following depression, Reasons for Living scores came as the second predictor for the Suicidal Thought Subscale of Suicide Probability Scale. There were a significant difference between the male and the female students on the Reasons for Living scores, with the female population having the higher scores than males. This scale was developed to assess the strengths of an individual's beliefs and coping skills across several cognitive dimensions. Linehan et al. (1983) reported that this scale differentiated suicidal from non suicidal individuals in an adult sample. Connell and Meyer (1991) found that, among 205 undergraduate students, those who reported never having suicidal thought had greater reasons for living scores, especially survival and coping beliefs. Reasons for living scores are correlated significantly and negatively with both past suicidal ideation and thought, and future likelihood of suicide.

After the depression variable, for both the Negative Self Thought and the Anger Subscales of the Suicide Probability Scale, the Friend Subscale of Multidimensional Scale of Perceived Social Support was the second predictor. Its items were associated with the adequacy of receiving support, both emotionally and instrumentally, from friends.

There is an extensive evidence for the role of social support in stress and in suicide. Social support is evaluated as an extremely valuable coping resource. De Wilde et al. (1992) reported that, in their sample of 157 adolescents, a high risk group with suicide attempts was distinguished from the others by their reporting less support and understanding from siblings and relations outside the family. Procidano and Heller (1983) reported that, among 222 university students, perceived support from both friends and family inversely related to symptoms of distress but, contrary to the present study findings, the relationship was stronger for family support. However, different from distress symptoms of anxiety, they reported that students who received high social support from their friends were significantly lower in trait anxiety and talked about themselves more to friends and siblings than the students who received low support from friends. Recently, Eskin (1995) investigated 652 Swedish and 654 Turkish high school students. Contrary to the present study findings, he found that current suicide risk of Turkish high school students, assessed by Suicide Probability Scale, was best predicted by family support. This findings is in agreement with other studies (Rubenstein et al., 1989; Rudd, 1990). However, Eskin (1995) found perceived friend support as the second best predictor of current suicidal risk. Contrary to the findings of Eskin (1995), Rubenstein et al. (1989), and Rudd (1990), who found that support from the family played major role in students' suicide probability, the present study has evidence about the major role of the support from friends among university students. Similarly, Eker and Arkar (1995) also reported that in an university sample, perceived social

support from friends was higher than those from the family and a significant other.

After the depression variable, for the Exhaustion Subscale, mother's education was the second best predictor. Exhaustion items were associated with the intensity and difficulties of responsibilities. As schooling decreased exhaustion scores increased. Apparently, as the education level of the mother increased, the sharing of responsibilities and the help of the mother increased and suicide probability risk due to exhaustion decreased.

When the third best predictors were evaluated, it was found that for the Negative Self Thought Subscale of the Suicide Probability Scale the third predictor was the Received Family Support Subscale. Its items were associated with trust toward family, and receiving support and feedback from family. The findings are parallel with the view that support received from family and friends are important protective factors from suicide probability.

For the Exhaustion Subscale of the Suicide Probability Scale, Life Experience Survey was the third best predictor. Exhaustion items were associated with the intensity and difficulties of the responsibilities. When a student's scores of negative life events increased, the suicide probability risk due to exhaustion increased. This subscale was the only factor of the Suicide Probability Scale that was predicted by negative life events, but the impact of life events on the

total variance was very small. The predictive effect of life events for suicide probability in other studies done with adolescents and young adults was much more important. The stressful life events for young people have been investigated by many researchers (Peck, 1987; Neiger & Hopkins, 1988; Dukes & Lorch, 1989; Rubenstein et al., 1989; Cole, 1989; Westefeld et al., 1990; Simonds et al., 1991; Clum & Febbraro, 1994; Garland & Zigler, 1993; Butler et al., 1994) and they have found that in youth suicide the life events that contributed to suicide included family, school, interpersonal problems, and other life events. These events span a range of threatening, undesirable, shameful or humiliating experiences. These stressful life events are mostly precipitating or triggering factors and occur closer to the suicidal act (Heikkinen et al., 1993). They are experiences of a relatively short duration, ranging from six months to a year (Garland & Zigler, 1993; Paykel,1994). In the present study negative life events were not as important as in other research, in explaining suicide probability. It might be that, since the sample of this study is a "normal" sample, the rate of occurance of significant life events was possibly low and/or the events were not of the type that might have had significant impact on the students. Moreover, it might also be said that, their networks had protected them (as support in the Main Hypothesis of social support) from the impact of negative life events. In short, life events variable was not a highly relevant factor in this "normal" sample.

It can be said that, depression is the best predictor of suicide probability for all the subscales of Suicide Probability Scale. It is a well-known fact that depression and suicide are associated strongly. The present data also showed that perceived support from friends and family may be related to the students' depression in such a way that support may be considered as an important coping strategy for lowering suicide probability risk. Perceived support from friends may well be a substitute for a social reward that depressive students have difficulty in getting because of their inactivity. In case that their no reward due to people's own actions, the unconditional support might substitute the role of social reward.

Consequently, it can be concluded that depression is also important in non - clinical samples as it is in the clinic population for suicide probability. On the basis of the results of the present study, a student with a depressive symptom has to be considered carefully, as he/she has a risk factor. The relationships of students with their friends and families are also important. Their supportive networks and the quality of support, whether it is sufficient or not, also have to be considered carefully. For student counseling centers in universities it is important to provide to the students, programs/therapies about: (1) skills for coping with stress and depression, (2) skills for perceiving their support systems, and receiving enough support from their environment, and (3) developing alternative skills for problem solving.

A limitation of the present study is related to the generalization of the present findings. Since the study undertook an investigation of the suicidal probability in a normal university student population by taking two universities of Ankara, the findings can not be generalized to all university student populations. Therefore, additional research has to consider the issues of the present study by using other samples from different universities. Moreover, future research should examine both a normal university student population, and a comparable group with a history of suicide attempts or strong ideations so that a comparison can be made between the clinic and the non - clinic groups.

REFERENCES

Allebeck, P., & Christina, B. (1991). Suicides and suicide attempts in cancer patients. Psychological Medicine, 21 (4), 979-984.

Aro, M. H, Hanninen, V., & Paronen, O. (1989). Social support, life events and psychosomatic symptoms among 14-16 year old adolescents. Social Sciences Medicine, 29 (9), 1051-1056.

Aro, M. H., Marttnen, J., & Lönnqvist, K, J. (1993). Adolescent development and youth suicide. Suicide and Life Threatening Behavior, 23 (4), 359-365.

Aslanoğlu, S. (1978). Habis tümörlerin oluşumunda stresin rolü. Unpublished master thesis. H.Ü., Psikoloji.

Aydın, G., & Demir, A. (1989). ODTÜ Öğrencilerinde depresif belirtilerin yaygınlığı. (prevalence of depressive symptoms among students of ODTU). Journal of Humanity Sciences, 8, 27-40.

Bagley, C., & Ramsay, R. (1993). Suicidal ideas and behaviors in contrasted generations: Evidence from a community mental health survey. Journal of Community Psychology, 21, 26-34.

Beck, A. T. Ward, C, H., Mendelson, M., Mock, J., & Erbaugh, J. (1961). An inventory for measuring depression. Archives of General Psychiatry, 4, 561-571.

Beck, A. T. (1963). Thinking and depression I. Archives of General Psychiatry, 9, 326,333.

Beck, A. T., & Lester, D. (1973). Components of depression in attempted suicides. The Journal of Psychology, 85, 257-260.

Beck, A. T., Kovacks, M., & Weissman, A. (1975). Hopelessness and suicidal behavior. JAMA, 234 (11), 1146-1149.

Beck, A. T. (1976). Cognitive Therapy and the emotional disorders. New York: International Universities Press.

Beck, A. T., Kovacks, M., & Weissman, A. (1979). Assessment of suicidal intention: The scale for suicidal ideation. Journal of Consulting and Clinical Psychology, 47 (2), 343-352.

Beck, A. T., Rush, A. J., Shaw, B. F., & Emary, G. (1979). Cognitive therapy of depression. New York: Guilford.

Beck, A. T., Steer, R. A., Kovacks, M., & Garrison, B. (1985). Hopelessness and eventual suicide: A 10-year prospective study of patients hospitalized with suicidal ideation. American Journal of Psychiatry, 142 (5), 559-563.

Beck, A. T., Steer, R. A., & Garbin, M. G. (1988). Psychometric properties of the Beck Depression Inventory: Twenty-five years of evaluation. Clinical Psychology Review, 8, 77-100.

Beck, A. T., Brown, G., & Steer, R. A. (1989). Prediction of eventual suicide in psychiatric inpatients by clinical ratings of hopelessness. Journal of Consulting and Clinical Psychology, 57 (2), 309-310.

Beck, A. T., Brown, G., Berchich, R. J., Stewart, L. B., & Steer, R. (1990). Relationship between hopelessness and ultimate suicide: A replication with psychiatric outpatients. American Journal of Psychiatry, 147, 190-195.

Beck, A. T., Steer, R. A., Beck, J. S., & Newman, C. F. (1993). Hopelessness, depression, suicidal ideation, and clinical diagnosis of depression. Suicide and Life Threatening Behavior, 23 (2), 139-145.

Berman, A. L., & Jobes, D. A. (1991). Adolescent suicide assessment and intervention. Washington, D. C.: American Psychological Association.

Blatt, S. J., D'Afflitti, J. P., & Quinlan, D. M. (1976). Expression of depression in normal young adults. Journal of Abnormal Psychology, 85 (4), 383-389.

Bolger, N., Downey, G., Walker, E., & Steininger, p. (1989). The onset of suicidal ideation in childhood and adolescence. Journal of Youth and Adolescence, 18 (2), 175-190.

Brent, D. A., Perper, J. A., Moritz, G., Baugher, M., Roth, C., Balach, L., & Schweers, J. (1993). Stressful life events, psychopathology, and adolescent suicide: A case control study. Suicide and Life Threatening Behavior, 23 (3), 179-187.

Butler, W. J., Novy, D. Kagan, N., & Gates, G. (1994). An investigation of differences in attitudes between suicidal and non suicidal student ideators. Adolescence, 29 (115), 623-637.

Choquet, M. Kovess, V., & Poutignat, N. (1993). Suicidal thoughts among adolescents: An international approach. Adolescence, 28, 649-659.

Ceyhun, B., Ergin, G., & Duran, A. (1993). Krize müdahele merkezine başvurularda yaşam olaylarının değerlendirilmesi. Kriz Dergisi, 1 (2), 51-56.

Clum, A. G., & Febbraro, G. A. R. (1994) Stress, social support and problem solving appraisal skills: Prediction of suicide severity within a college ample. Journal of Psychopathology and Behavioral Assessment, 16 (1), 69-83.

Cohen, S., & Wills, A. T. (1985). Stress, social support, and the buffering hypothesis. Psychological Bulletin, 98 (2), 310-357.

Cole, D. A. (1988). Hopelessness, social desirability, depression, and parasuicide in two college student samples. Journal of Consulting and Clinical Psychology, 56 (19), 131-136.

Cole, D. A. (1989). Psychopathology of adolescent suicide: Hopelessness, coping beliefs, and depression. Journal of Abnormal Psychology, 98 (3), 248-255.

Connell, K. D., & Meyer, R. G. (1991). The reasons for living inventory and a college population : Adolescent suicidal behaviors, beliefs, and coping skills. Journal of Clinical Psychology, 47 (4), 485-489.

D. İ. E. (1990). İntihar İstatistikleri (Suicide statistics). Ankara: Başbakanlık Devlet İstatistik Enstitüsü (State Institute of statistics.

De Jong, M. L. (1992). Attachment, individuation and risk of suicide in late adolescence. Journal of Youth and Adolescence, 21 (3), 357-373.

De Wilde, E. J. Kienhorst, I. C. W. M., Diekstra, R. F. W., & Wolters, W. H. G. (1992). The relationship between adolescent suicidal behavior and life events in childhood and adolescence. American Journal of Psychiatry, 149 (1), 45-51.

Diekstra, R. F. W. (1989). Suicide and the attempted suicide: An international perspective. Acta Psychiatrica Scandinava, 80 (354), 1-24.

Diekstra, R. F. W., Maris, R., Platt, S., Schmidtke, A., & Sonneck, G. (1989). Suicide and its prevention: The role of attitude and imitation. Leiden, The Netherlands: Brill.

Dixon, A. W., Heppner, P. P., & Anderson, W. P. (1991). Problem-solving appraisal, stress, hopelessness and suicide ideation in a college population. Journal of counseling Psychology, 38, 51-56.

Dixon, A. W., Rumford, G. K., Heppner, P. P., & Lips, B. J. (1992). Use of different sources to predict hopelessness and suicide ideation in a college population. Journal of Counseling Psychology, 39 (3), 342-349.

Dixon, A. W., Heppner, P. P., & Rudd, D. M. (1994). Problem solving appraisal, hopelessness, and suicide ideation: Evidence for a mediational model. Journal of Counseling Psychology, 41 (1), 91-98.

Drake, R. E., & Cotton, P. G. (1986). Depression, hopelessness and suicide in chronic schizophrenia. British Journal of Psychiatry, 148, 554-559.

Du Bois, L. D., Felner, D. R. Meares, F., & Krier, M. (1994). Prospective investigation of the effects of socioeconomic disadvantage, life stress and social support on early adolescent adjustment. Journal of Abnormal Psychology, 103 (3), 511-522.

Dukes, L. P., & Lorch, B. (1989). The effects of school, family, self-concept, an deviant behavior on adolescent suicide ideation. Journal of Adolescence 12, 239-251.

Durak, A., Yasak-Gültekin, L., & Şahin, N. H. (1993). İnsanları yaşama bağlayan nedenler nelerdir? Yaşamı Sürdürme Nedenleri Envanterinin güvenirliği ve geçerliği (What are the reasons that tie people to life: Reliability and validity of the Reasons for Living Inventory). Türk Psikoloji Dergisi, 8 (39), 7-19.

Eker, D., & Arkar, H. (1995). Perceived social support: psychometric properties of the MSPSS in the normal and pathological groups in a developing country. Social Psychiatry Epidemiology, 30, 1-6.

Eskin, M (1993). Reliability of the Turkish version of the Perceived Social Support from friends and from family Scales, Scale for Interpersonal Behavior, and the Suicide Probability scale. Journal of Clinical Psychology, 49, 515-522.

Eskin, M. (1995). Aspects of adolescent suicidal behavior among Turkish and Swedish high school students. Unpublished doctoral dissertation, Stockholm University, Stockholm.

Fagan, R. W. (1994). Social well-being in university students. Journal of Youth and Adolescence, 23 (2), 237-249.

Fremouw, W., Callahan, T., & Kashden, J. (1993). Adolescent suicidal risk: Psychological problem solving, and environmental factors. Suicide and Life Threatening Behavior, 23 (1), 46-54.

Garfinkel, B. D., Froese, A., & Hood, J. (1982). Suicide attempts in children and adolescents. American Journal of Psychiatry, 139, 1257-1261.

Garland, F. A., & Zigler, E. (1993). Adolescent suicide prevention. American Psychologist, 48 (29), 169-182.

Garrison, C. Z., Lewinshon, P. M., Marsteller F., Langhinrichsen, J., & Lann I. (1991). The assessment of suicidal behavior in adolescents. Suicide and Life Threatening Behavior, 21 (3), 217-229.

Greenwald, D. J., Reznikoff, M., & Plutchik, R. (1994). Suicide risk and violence risk in alcoholics. Journal of Nervous and Mental Disease, 182, 3-8.

Grob, M. C., Klein, A. A., & Eisen, S. V. (1983). The role of the high school professional in identifying and managing adolescents suicidal behavior. Journal of Youth and Adolescence, 12 (2), 163-173.

Güleç, C., & Küey, L. (1989). Türkiye 'de 1980'lerde depresyon: Epidemiyolojik ve klinik yaklaşımlar. Nöro-Psikiyatri Arşivi, Özel Sayı, XXVI, 17-28.

Hawton, K. (1987). Assessment of suicidal risk. British Journal of Psychiatry, 150, 145-153.

Heikkenen, M., Aro, H., & Lönnqvist, J. (1993). Life events and social support in suicide. Suicide and Life Threatening Behavior, 23 (4), 343-358.

Herman, S. L., & Lester, D. (1994). Physical symptoms of stress, depression and suicidal ideation in high school students. Adolescence, 29 (115), 639-649.

Hisli, N. (1988). Beck Depresyon Envanteri'nin geçerliği üzerine bir çalışma, Psikoloji Dergisi, 6 (22), 118-122.

Hisli, N. (1989). Beck Depresyon Envanteri'nin üniversite öğrencileri için geçerliği güvenirliği. Psikoloji Dergisi, 7, (23), 3-13.

Hjortsjö, T. (1987). Suicide in relation to somatic illness and complications. Crisis, 8 (2), 125-137.

Hoffman, A. M., Levy-Shiff, R., & Ushpiz, V. (1993). Moderating effects of adolescent social orientation on the relation between social support and self-esteem. Journal of Youth and Adolescence, 22 (1), 23-55.

Houtman, I. L. (1990). Personel coping resources and sex differences. Personality and Individual Differences. 11 (1), 53-63.

Howard-Pitney, B., Laframboise, T. D., Basil, M., September, B., & Johnson, M. (1992). Psychological and social indicators of suicide ideation and suicide attempts in Zuni adolescent. Journal of Consulting and Clinical Psychology, 60 (3), 473-476.

Kandel, D. B., Raveis, V. H., & Davies, M. (1991). Suicidal ideation in adolescence: Depression and other risk factors. Journal of Youth and Adolescence, 20 (2), 289-307.

Kazarian, S. S., & Mc Cabe, S. B. (1991). Dimensions of social support in the MSPSS: factorial structure, reliability, and theoretical implications. Journal of Community Psychology, 19, 150-160.

Kienhorst, C. W. M., Wilde, E. J., Bout, J., Burg, E., Diekstra, R. F. W., & Wolters, W. H. G. (1993). Two subtypes of adolescent suicide attempters: An empirical classification. Acta Psychiatrica Scandinava, 87, 18-22.

Kienhorst, I. (1995). Depressive symptomatology in depressed and suicidal adolescents. Crisis, 16 (1), 7-8.

Kotler, M., Finkelstein, G., Molcho, A., Botsis J. A., Plutchik, R., Brown, S. L., & Van Praag, H. (1993). Correlates of suicide and violence risk in an inpatient population: Coping styles and social support. Psychiatry Research, 47, 281-290.

Leenars, A. A., & Lester, D. (1990) Suicide in adolescents: A comparison of Canada and the United States. Psychological Reports, 67, 867-875.

Lerner, M. S., & Clum, A. G. (1990). Treatment of suicidal ideators: A problem solving approach. Behavior Therapy, 21, 403-411.

Lester, D., & Miller, C. (1990). Depression and suicide preoccupation in teenagers. Personality Individual Differences, 11 (4), 421-422.

Lin, N., & Ensel, W. (1989). Life stress and health: Stressors and resources. American Sociological Review, 54, 382-399.

Linehan, M. M., Goodstein, J. L., Nielsen, L. S.. & Chiles, J. A: (1983). Reasons for staying alive when you are thinking of killing yourself: The reasons for living inventory. Journal of Consulting and Clinical Psychology, 51 (2), 276-286.

Mallinckrodt, B., & Leong, T. L. F. (1992). International Graduate students, stress and social support. Journal of College Student Development, 33, 71- 78.

Mallinckrodt, B., & Leong, T. L. F. (1992). Social support in academic programs and family environments: Sex differences and role conflicts for graduate students. Journal of Counseling and Development, 70, 716-723.

Maris, R. W. (1991). Introduction. Suicide and Life Threatening Behavior, 21 (1), 1-17.

Meehan, P. M., Durlak, A, J., & Bryant, B. F. (1993). The relationship of social support to perceived control and subjective mental health in adolescents. Journal of Community Psychology, 21, 49-55.

Meneese, W. b., & Yurtzenka, B. A. (1990). Correlates of suicidal ideation among rural adolescents. Suicide and Life Threatening Behavior, 20, 206- 212.

Michels, R., & Cavener, J. O. Jr. (1987). Suicide and attempted suicide. In Michels, R., & Cavener, J. O. Jr. (Eds), Psychiatry: Vol 1, Chapter 71. Philedelphia: Lippincott Company.

Minkoff, K., Bergamn, E., Beck, A. T., & Beck, R. (1973). Hopelessness, depression and attempted suicide. American Journal of Psychiatry, 130 (4), 455-459.

Morano, C. D., Cisler, R. A., & Lemerond, J. (1993). Risk factors for adolescent suicidal behavior: Loss, insufficient familial support, and hopelessness. Adolescence, 28, 851-856.

Murphy, G. E. (1988). Suicide and substance abuse. Archives of General Psychiatry, 45, 593-594.

Neiger, B. L., & Hopkins, W. R. (1988). Adolescent suicide: Character traits of highrisk teenagers. Adolescence, 23 (90), 469-475.

Newcomb, D. M., & Bentler, P. M. Bentler, P. M. (1988). Impact of adolescent drug use and social support on problems of young adults: a longitudinal study. Journal of Abnormal Psychology, 97 (1), 61-75.

Norusis, M. J. (1986). Advanced Statistics: SPSS/PC+. Chicago: SPSS Inc.

Palabıyıkoğlu, R., Azizoğlu, S., Özayar, H., & Ercan, A. (1993). İntihar girişimlerinde bulunanların aile işlevlerinin değerlendirilmesi. Kriz Dergisi, 1 (2), 69-76.

Patros, P. G., & Shamoo, T. K. (1989). Depression and suicide in children and adolescents: Prevention, intervention and postvention. Massachusetts: Allyn and Bacon.

Paykel, E. S. (1994). Life events, social support and depression. Acta Psychiatrica Scandinava, 377, 50-58.

Peck, M. L., Farberow, N. L., & Litman, R. E. (1985). Youth suicide. New York: Springer Publishing Company.

Peck, D. L. (1987). Social-psychological correlates of adolescent and youthful suicide. Adolescence, 22 (88), 863-878.

Procidano, E. M., & Heller, K. (1983). Measures of perceived social support from friends and from family: Three validation studies. American Journal of Community Psychology, 11 (1), 1-24.

Roa, A. V. (1990). Physical illness, pain, and suicidal behavior. Crisis, 11 (2), 48- 56.

Roehrig, H. R., & Range, L. M. (1995). Recklessness, depression and reasons for living in predicting suicidality in college students. Journal of Youth and Adolescence, 24 (6), 723-729.

Rich, C. L., Young, D., & Fowlwe, R. C. (1986). the San-Diego suicide study: Young versus old cases. Archives of General Psychiatry, 43, 577-582.

Rickgarn, R. L. V. (1994). Perspectives on college student suicide. New York: Baywood Publishing Company, Inc.

Rim, Y. (1990). Social class differences in coping styles. Personality and Individual Differences, 11 (8), 875-876.

Roy, A. (1994). Recent biologic studies on suicide. Suicide and Life Threatening Behavior, 24, 10-14.

Rubenstein, L. J., Heeren, T., Housman, D. Rubin, C., & Stechler, G. (1989). Suicidal behavior in normal adolescents: Risk and protective factors. American Journal of Orthopsychiatry, 59 (1), 59-71.

Rudd, M. D. (1989). The prevalence of suicidal ideation among college students, Suicide and Life Threatening Behavior, 19 (2), 173-183.

Rudd, M. D. (1990). An integrative model of suicidal ideation. Suicide and Life Threatening Behavior, 20 (1), 16-30.

Runeson, B. (1990). Psychoactive substance use disorder in youth suicide. Alcohol and Alcoholism, 25 (5), 561-568.

Santrock, J. W. (1989). Life span development. Iowa: Wm. C. Brown Publishers.

Sarason, I. G., Johnson, J. H., & Siegel, J. M. (1978). Assessing the impact of life changes: Development of the life experience survey. Journal of Consulting and Clinical Psychology, 46 (5), 932-946.

Sarason, I. G. (1983). Assessing social support: The social support questionnaire. Journal of Personality and Social Psychology, 44, 127-139.

Sayıl, I. (1992). Türkiye'de İntihar olgusu. Kriz Dergisi, 1 (1), 38-40.

Schotte, E. D., & Clum, A. G. (1987). Problem-solving skills in suicidal psychiatric patients. Journal of Consulting and Clinical Psychology, 55 (1), 49-54.

Sherer, M. (1985). Depression and suicidal ideation in college students, Psychological Reports, 57, 1061-1062.

Silverman, M. M. (1993) Campus student suicide rates: Fact or artifact. Suicide and Life Threatening Behavior, 23 (4), 329-342.

Simonds, F. J., McMahon, T., & Armstrong, D. (1991). Young suicide attempters compared with a control group: Psychological, affective and attitudinal variables. Suicide and Life Threatening Behavior, 21 (2), 134-151.

Simons, L. R., & Murphy, P. I. (1985). Sex differences in the cause of adolescent suicide ideation. Journal of Youth and Adolescence, 14 (5), 423-434.

Smith, K., & Crawford, S. (1986). Suicidal behavior among normal high school students. Suicide and Life threatening Behavior, 16, 313-325.

Soloff, P. H., Lis, J. A., Kelly, T., Cornelius, J., & Ulrich, R. (1994). Risk factors for suicidal behavior in borderline personality disorder. American Journal of Psychiatry, 151 (9), 1316-1323.

Steer, R. A., Kumar, G., & Beck, A. T. (1993). Self-reported suicidal ideation in adolescent psychiatric inpatients. Journal of Consulting and Clinical Psychology, 61, 1096-1099.

Şahin, N.H., Rugancı, N. R., Taş, Y., Kuyucu, S., & Sezgin, N. (1990). Üniversite öğrencilerinin stresle ilişkili gördükleri faktörler, stres belirtileri ve kullandıkları başaçıkma yolları. Araştırma ön raporu. Bilkent Üniversitesi.

Tegin, B. (1980). Depresyonda bilişsel bozukluklar: Beck modeline göre bir inceleme. Unpublished doctoral dissertation, H. Ü., Psikoloji Bölümü, Ankara.

Vilhjalmsson, R. (1993). Life stress, social support and clinical depression: A reanalyzes of the literature. Social Sciences Medicine, 37 (3), 331-342.

Wagner, B. M. (1997). Family risk factors for child and adolescent suicidal behavior. Psychological Bulletin, 121 (2), 246-298.

Westefeld, J. S.,Whitehard, K. A., & Range, L. M. (1990). College and university student suicide:Trends and implications. The Counseling Psychologist, 18 (3), 464-467.

Westermeyer, J. F., Harrow, M., & Marengo, J. (1991). Risk for suicide in schizophrenia and other psychotic and non psychotic disorders. The Journal of Nervous and Mental Disease, 179, 259-266.

Wetzel, R. D., & Reich, T. (1989). The cognitive triad and suicide intent in depressed patients. Psychological Reports, 65, 1027-1032.

Whitaker, C. L., & Slimak, R. E. (1990). College student suicide. New York: The Haworth Press.

Wilson, G. L. (1991). Comment: Suicidal behavior: Clinical consideration and risk factors. Journal of Consulting and Clinical Psychology, 59 (6), 869-873.

Windle, M., & Miller-Tutzauer, C. (1992). Confirmatory factor analysis and concurrent validity of the perceived social support: Family measure among adolescents. Journal of Marriage and the Family, 54, 777-787.

Winefield, H. R., Winefield, A. H., & Tiggeman, M. (1992). Social support and psychological well-being in young adults: The multidimensional support scale. Journal of Personality Assessment, 58 (1), 198-210.

Winokur, G., & Tsuang, M. (1975). The Iowa 500: Suicide in mania, depression and schizophrenia. American Journal of Psychiatry, 132 (6), 650-651.

Wolf, M. T., Elston, R. C., & Kissling, E. G. (1989). Relationship of hassles, uplifts and life events to psychological well-being of freshman medical students. Behavioral Medicine, Spring '89, 37-45.

Workman, M., & Beer, J. (1990). Relationship between alcohol dependency and suicide ideation among high school students. Psychological reports, 66, 1363-1366.

Wright, L. S. (1985). Suicidal thoughts and their relationship to family stress and personal problems among high school seniors and college undergraduates. Adolescence, 20 (79), 575-580.

Yüksel, N., Özgentaş,U., Çalangu, S., & Ekşi, A. (1986). Adölesanlarda intihar girişimi nedenleriyle ilgili bir çalışma. 22. Ulusal Psikiyatri ve Nörolojik Bilimler Kongresi, Marmaris (Bilimsel Çalışmalar), 220-230.

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. Journal of Personality Assessment, 52, 30-41.

APPENDIX A

Table 5. Factor loadings for the Perceived Social Support from Family Scale items

Items	Received support eigenvalue:6.43 Perc.of var:32.2%	Provided support eigenvalue:1.67 Perc.of var:8.4%	Family intimacy eigenvalue:1.29 Perc.of var:6.4%
1.Ailem bana gereğince manevi destek olur	.76		
2.Neyi nasıl yapacağım konusunda ailemden öğüt alırım.	.66		
3.Pek çok insan ailesine benim aileme olduğumdan daha yakındır	.48		
4.Ailemde kendime en yakın hissettiğim kişilere bir derdimi açtığımda bunun onları rahatsız ettiği fikrine kapılıyorum	.39		
5.Ailem fikirlerimi duymaktan hoşlanır	.61		
8.Ailemin duygusal desteğine güvenirim	.79		
11.Ailem benim kişisel gereksinmelerime karşı duyarlıdır	.64		
13.Ailem sorunlarımı çözmede bana yardımcı olur	.72		
14.Bazı aile fertleriyle aramda karşılıklı derin bir ilişki vardır	.37		
7.Ailemdeki bazı kişiler sorunları olduğunda veya danışmak amacıyla bana başvururlar		.67	

9.Ailemde bir derdim olduğu zaman sonradan komik kaçacağını düşünmeden gidebileceğim bir kişi var	.42	
10.Ailemle çeşitli konulardaki düşüncelerimizi açık açık birbirimize söyleriz	.45	
12.Ailemdeki kişiler duygusal desteğe ihtiyaç duyduklarında bana başvururlar	.63	
15.Ailemdeki kişiler neyi nasıl yapacakları konusunda benden faydalı fikirler edinirler	.75	
17.Aile fertleri tarafından aranan biriyimdir.	.43	
18.Ailemin problemlerini çözmede onlara yardımcı olduğumu düşündüklerini sanıyorum	.74	
6.Ailemdeki kişilerle ilgi alanlarımız büyük ölçüde çakışır.		.37
16.Ailemdeki kişilere sırlarımı açmak beni rahatsız eder		.47
19.Ailemdeki hiç kimseyle diğer insanların ailesindeki kişilerle olan ilişkisi kadar yakın bir ilişkim yok		.73
20.Ailemin çok daha farklı olmasını isterdim		.56

Table 6. Cronbach's alpha and item total correlation of the Perceived Social Support from Family Scale subscales

Items	Received support Cronbach's alpha:.83	Provided support Cronbach's alpha:.78	Family intimacy Cronbach's alpha:.45
1	.67		
2	.53		
3	.45		
4	.41		
5	.57		
8	.70		
11	.50		
13	.66		
14	.37		
7		.54	
9		.43	
10		.44	
12		.56	
15		.55	
17		.43	
18		.58	
6			-.06
16			.37
19			.35
20			.41

Table 7. Factor loadings for the Perceived Social Support from Friends Scale items

Items	Received support eigenvalue:7.08 Perc.of var:35.4%	Provided support eigenvalue:1.48 Perc.of var:7.4%	Friend intimacy eigenvalue:1.17 Perc.of var:5.8 %
1.Arkadaşlarım bana gereğince manevi destek olurlar	.63		
5.Arkadaşlarımın duygusal desteğine güvenirim	.68		
8.Bir derdim olduğunda sonradan komik kaçacağını düşünmeden gidip konuşabileceğim bir arkadaşım var	.58		
9.Arkadaşlarımla çeşitli konulardaki düşüncelerimizi birbirimize açık açık söyleriz	.51		
10.Arkadaşlarım benim kişisel gereksinimlerime karşı duyarlıdır	.47		
12.Arkadaşlarım sorunlarımı çözmede bana yardımcı olurlar	.75		
13.Arkadaşlarımın bazısıyla aramda derin bir ilişki vardır	.45		
15.Arkadaşlarıma sırlarımı açmak beni rahatsız eder	.56		
19.Geçenlerde arkadaşlarımdan birinden bir şeyi nasıl yapacağım konusunda fikir aldım	.61		
4.Bazı arkadaşlarım sorunları olduğunda bana başvururlar		.73	

6.Arkadaşlarımdan birinin veya birkaçının bana kızgın olduklarını sezsem bunu kimseye söylemem	.36	
11.Arkadaşlarım duygusal desteğe ihtiyaçları olduğunda bana başvururlar	.70	
14.Arkadaşlarım neyi nasıl yapacakları konusunda benden faydalı fikirler alırlar	.65	
17.Arkadaşlarımın problemlerini çözmede onlara yardımcı olduğumu düşündüklerini sanıyorum	.63	
2.Pekçok insan arkadaşlarına benim arkadaşlarıma olduğumdan daha yakındır		.72
3.Arkadaşlarım fikirlerimi duymaktan hoşlanır		.48
7.Kendimi arkadaş çevremin dışında hissediyorum		.58
16.Arkadaşlarım tarafından aranan biriyimdir		.62
18.Arkadaşlarımla aramda diğer insanların arkadaşlarıyla arasındaki kadar yakın bir ilişkim yok		.69
20.Arkadaşlarımın çok daha farklı olmasını isterdim		.63

Table 8. Cronbach's alpha and item total correlation of the Perceived Social Support from Friends Scale subscales

Items	Received support Cronbach's alpha:.84	Provided support Cronbach's alpha:.68	Friend intimacy Cronbach's alpha:..80
1	.65		
5	.67		
8	.51		
9	.55		
10	.56		
12	.71		
13	.53		
15	.47		
19	.43		
4		.51	
6		.23	
11		.54	
14		.48	
17		.48	
2			.51
3			.51
7			.55
16			.54
18			.61
20			.60

Table 9. Factor loadings for the Suicide Probability Scale items

Items	Suicidal thought eigenvalue: 9.76 Perc. of var: 27.1 %	Negative self th. eigen value: 2.02 Perc. of var: 5.6 %	Exhaustion eigenvalue: 1.9 Perc. of var: 5.2 %	Anger eigenvalue: 1.7 Perc. of var: 4.7 %
7.Başkalarını cezalandırmak için intiharı düşünüyorum	.58			
17.Ölürsem hiç kimsenin beni özlemeyeceğini sanıyorum	.47			
21.Dünyanın yaşamaya değer bir yer olmadığını düşünüyorum	.63			
24.Ölürsem insanların daha iyi olacağını hissediyorum	.63			
25.Böyle yaşamaktansa ölmenin daha az acı verici bir şey olduğunu düşünüyorum	.76			
28.Hiçbir şeyin düzeleceğine inanmıyorum	.62			
29.İnsanların beni ve yaptıklarımı doğru bulmadıklarını hissediyorum	.37			
30.Kendimi nasıl öldüreceğimi düşündüm	.67			

32.İntihar etmeyi düşünüyorum	.73	
36.Nerede olursam olayım mutlu olamayacağımı sanıyorum	.60	
2.Benimle candan ilgili pek çok kişi olduğuna inanıyorum		.69
6.Yapabileceğim faydalı pek çok şey olduğuna inanıyorum		.32
9.Kendimi insanlardan soyutlanmış hissediyorum		.49
10.İnsanların bana olduğum gibi değer verdiklerine inanıyorum		.64
11.Ölürsem pek çok insanın üzüleceğine inanıyorum		.59
12.Kendimi dayanılmayacak kadar yalnız hissediyorum		.45
13.İnsanların bana karşı düşmance duygular içinde olduğunu hissediyorum		.30
16.Sevdiğim kişilerle arkadaşlığımı sürdürmekte güçlük çekiyorum		.51
18.İşlerim yolunda gidiyora benziyor		.47

22.Geleceğim hakkında çok dikkatli plan yaparım	.33			
23.Güvenebileceğim pek fazla arkadaşımın olmadığını hissediyorum	.59			
26.Kendimi anneme yakın hissediyorum	.38			
27.Kendimi babama yakın hissediyorum	.65			
31.Para konusu beni endişelendiriyor	.36			
35.Kendimi babama yakın hissediyorum	.49			
5.Çok fazla sorumluluğum olduğunu düşünüyorum		.59		
14.Yeni baştan başlayabilsem hayatımda pek çok değişiklik yapardım		.63		
15.Pek çok şeyi iyi yapamadığımı sanıyorum		.61		
19.İnsanların benden çok şey beklediklerini hissediyorum		.45		
20.Yaptığım veya düşündüğüm şeyler için kendimi cezalandırmam gerektiğini düşünüyorum		.47		
33.Kendimi yorgun ve kayıtsız hissediyorum		.56		
1.Kızınca birşeyler fırlatırım				.74

3.Düşüncesizce hareket etmeye eğilimli olduğumu sanıyorum	.32
4.Başkalarına anlatılamayacak kadar kötü şeyler düşünüyorum	.36
8.Başkalarına karşı düşmanca duygular besliyorum	.33
34.Kızınca birşeyler fırlatırım	.72

Table 10. Cronbach's alpha and item total correlation of the Suicide Probability Scale subscales

Items	Suicidal thought Cronbach's alpha: .87	Negative self th. Cronbach's alpha: .84	Exhaustion Cronbach's alpha: .66	Anger Cronbach's alpha: .65
7	.41			
17	.54			
21	.65			
24	.60			
25	.73			
28	.68			
29	.52			
30	.65			
32	.62			
36				
2		.62		
6		.30		
9		.60		
10		.57		
11		.47		
12		.55		
13		.37		
16		.53		
18		.57		
22		.31		
23		.62		
26		.30		
27		.56		
31		.28		
35		.40		
5			.40	
14			.41	
15			.44	
19			.30	
20			.34	
33			.45	
1				.45
3				.34
4				.37
8				.34
34				.50

Table 11. Factor loadings for the Multidimensional Scale of Perceived Social Support items

Items	Significant eigenvalue 5.64 Perc.of var 47%	Family eigenvalue 1.48 Perc.of var 12.3%	Friends eigenvalue 2.27 Perc.of var 19 %
1.İhtiyacım olduğunda yanımda olan özel bir insan var	.85		
2.Sevinç ve kederlerimi paylaşacağım özel bir insan var	.89		
5.Beni gerçekten rahatlatan özel bir insan var	.88		
10.Yaşamımda duygularıma önem veren özel bir insan var	.86		
3.Ailem bana gerçekten yardımcı olmaya çalışır		.88	
4.İhtiyacım olan duygusal yardımı ve desteği ailemden alırım		.88	
8.Sorunlarımı ailemle konuşabilirim		.82	
11.Kararlarımı vermemde ailem bana yardımcı olmaya çalışır		.75	
6.Arkadaşlarım bana gerçekten yardımcı olmaya çalışırlar			.86
7.İşler kötüye gittiğinde arkadaşlarıma güvenebilirim			.85
9.Sevinç ve kederlerimi paylaşabileceğim arkadaşlarım var			.84
12.Sorunlarımı arkadaşlarımla konuşabilirim			.81

Table 12. Cronbach's alpha and item total correlation of the Multidimensional Scale of Perceived Social Support subscales

Items	Significant Cronbach's alpha:.93	Family Cronbach's alpha:.87	Friend Cronbach's alpha:.91
1	.81		
2	.88		
5	.84		
10	.80		
3		.77	
4		.78	
8		.70	
11		.63	
6			.82
7			.80
9			.82
12			.75

Table 15. Intercorrelations of demographic variables with Suicide Probability Scale subscales

Variables	Suicide Thought	Self Evaluation	Anger	Exhaustion
Sex	.07	.19**	.14**	.10
Age	.07	.11	-.03	.13*
Faculties	.04	.04	-.03	-.09
Class	.08	.08	-.07	-.01
Residence[a]	-.03	-.08	-.02	-.08
Mother Alive	-.02	-.03	-.01	.03
Mother's Education Level	-.11	-.19**	-.05	-.23**
Mother's profession	-.09	-.10	-.01	-.16**
Father alive	.05	.01	-.05	-.02
Father's Education Level	-.11	-.17**	-.07	-.16**
Father's Profession	-.07	-.08	-.01	-.01
Parents together	.01	.03	.02	-07
Siblings	.01	.01	.01	-.03
Number of Siblings	.01	-.01	.07	-.02
Extended family member live in the house	-.07	-.06	-.05	-.15**
Place of Living	-.02	-.05	.02	.08

*p<0.01, **p<0.001

Note. [a] For the longest duration of time

APPENDIX B

Bu araştırma, üniversitede okuyan gençlerin karşılaşabilecekleri yaşam olaylarını ve bunlardan ne derece etkilendiklerini anlamak için Öğrenci Gelişim ve Danışma Merkezi tarafından yapılmaktadır. İsim yazmanız gerekmemektedir. Sonuçların sağlıklı olması için lütfen tüm soruları samimi ve dürüst olarak cevaplayınız. Yardımcı olduğunuz için şimdiden teşekkür ederiz.

Araştırma ile ilgili herhangi bir sorusu olan veya bu konularda yardım almak isteyen olursa, aşağıdaki adrese çekinmeden başvurabilir.

Psk. Zeynep Tüzün
Öğrenci Gelişim ve Danışma Merkezi
Bilkent Üniversitesi Merkez Lojmanlar No: 20/5-6
Telefon: 266 40 00 /1785-1786.

APPENDIX C

Yaşınız:_____

Cinsiyetiniz: ☐ Kız ☐ Erkek

Bölümünüz::_____ ☐ Burslu ☐ Burssuz

Hayatınızda en uzun yaşadığınız yer: ☐ Köy ☐ Kasaba ☐ Şehir ☐ Büyükşehir

Anneniz hayatta mı? ☐ Hayır ☐ Evet

Annenizin eğitim durumu:
☐ Okuryazar
☐ Okuryazar değil
☐ İlkokul mezunu
☐ Ortaokul ve dengi mezunu
☐ Lise ve dengi mezunu
☐ Üniversite/Yüksek okul mezunu
Diğer(belirtiniz):_____

Annenizin mesleği (belirtiniz):_____

Babanız hayatta mı? ☐ Hayır ☐ Evet

Babanızın eğitim durumu:
☐ Okuryazar
☐ Okuryazar değil
☐ İlkokul mezunu
☐ Ortaokul ve dengi mezunu
☐ Lise ve dengi mezunu
☐ Üniversite/Yüksek okul mezunu
Diğer(belirtiniz) :_____

Babanızın mesleği (belirtiniz):_____

Anne ve babanız birlikte mi? ☐ Hayır ☐ Evet

Cevabınız hayır ise hangisi ile yaşıyorsunuz (belirtiniz):_____

Kardesiniz var mı? ☐ Hayır ☐ Evet Kaç tane(belirtiniz):_____

Anne, baba ve kardeşler dışında kendi evinizde yaşayan biri var mı?
Büyük anne, büyük baba v.b.)? ☐ Hayır ☐ Evet Kimler(belirtiniz):_____

Üniversite eğitiminizi sürdürürken kaldığınız yer
Aile yanı
Akraba yanı
Yurt
Tekbaşına evde
Arkadaşlarla evde
Diğer(belirtiniz):_____

APPENDIX D

Beck Depression Inventory (Sample of Items)

1. (a) Kendimi üzgün hissetmiyorum.

   (b) Kendimi üzgün hissediyorum.

   (c) Her zaman için üzgünüm ve kendimi bu duygudan kurtaramıyorum.

   (d) Öylesine üzgün ve mutsuzum ki dayanamıyorum.

2. (a) Kendimi suçlu hissetmiyorum.

   (b) Arada bir kendimi suçlu hissettiğim oluyor.

   (c) Artık hiçbir şeyden gerçek bir zevk alamıyorum.

   (d) Bana zevk veren hiçbir şey yok. Herşey çok sıkıcı.

3. (a) Kendimden hoşnutum.

   (b) Kendimden pek hoşnut değilim.

   (c) Kendimden hiç hoşlanmıyorum.

   (d) Kendimden nefret ediyorum.

4. (a) İştahım eskisinden pek farklı değil.

   (b) İştahım eskisi kadar iyi değil.

   (c) Şu sıralar iştahım epey kötü.

   (d) Artık hiç iştahım yok.

Şahin, H. N. (1978). Bilişsel-Davranışçı terapilerde değerlendirme: Sık kullanılan Ölçekler. In Şahin. H. N., & Savaşır, I. (Eds.). Ankara: Türk Psikologlar Derneği Yayınları

APPENDIX E

Life Experience Survey (Sample of Items)

1. Uyku alışkanlığında önemli değişmeler (daha az veya daha fazla uyuma).

2.100 milyon T.L.'den fazla borç alma veya yatırım yapma (Kitap, kira, okul, ev veya yurt harcamaları, günlük harcamalar).

3.Nişanli veya kız/erkek arkadaşla (flört) ilişkinin bozulması.

4. Önemli bir sınavda başarısız olma.

Aslanoğlu, S. (1978). Habis tümörlerin oluşumunda stresin rolü. Unpublished master thesis.H. Ü., Psikoloji.

Zeynep Tüzün. Bilkent Üniversitesi, Öğrenci Gelişim ve Danışma Merkezi, Merkez Lojmanlar 20/5. Tel: 266 40 00/1785-1786.

APPENDIX F

Perceived Social Support from Family (Sample of Items)

1.Ailem bana gereğince manevi destek olur.

2. Ailemin duygusal desteğine güvenirim.

3.Aile fertleri tarafından aranan biriyimdir.

4.Ailemdeki kişiler duygusal desteğe ihtiyaç duyduklarında bana başvururlar.

Mehmet Eskin. Stockholm University, Department of Psychology, S-106 91 Stockholm, Sweden.

APPENDIX G

Perceived Social Support from Friends (Sample of Items)

1. Arkadaşlarım fikirlerimi duymaktan hoşlanır.

2. Arkadaşlarımın duygusal desteğine güvenirim.

3. Arkadaşlarımla aramda, diğer insanların arkadaşlarıyla arasındaki kadar, yakın bir ilişki yok.

4. Arkadaşlarım benim kişisel gereksinmelerime karşı duyarlıdır.

Mehmet Eskin. Stockholm University, Department of Psychology, S-106 91 Stockholm, Sweden.

APPENDIX G

Suicide Probaility Scale (Sample of Items)

1. Kızınca birşeyler fırlatırım.

2. Çok fazla sorumluluğum olduğunu düşünüyorum.

3. Kendimi insanlardan soyutlanmıı hissediyorum.

4. İntihar etmeyi düşünüyorum.

Mehmet Eskin. Stockholm University, Department of Psychology, S-106 91

Stockholm, Sweden.

APPENDIX I

Reasons for Living Inventory (Sample of Items)

1. Gelecekten umudunuzun ve beklentilerinizin olması.

2. Sevdiğiniz ve güvendiğiniz insanların olması.

3 Hayatla mücadele edecek cesarete sahip olmanız.

4. Yapmaktan zevk aldığınız uğraşlarınızın olması.

Ayşegül Durak Batıgün, Ankara Üniversitesi Dil Tarih ve Coğrafya Fakültesi, Psikoloji Bölümü.

APPENDIX J

Multidimensional Scale of Perceived Social Support (Sample of Items).

1. İhtiyacım olduğunda yanımda olan özel bir insan var.
2. Arkadaşlarım bana gerçekten yardımcı olmaya çalışır.
3. Kararlarımı vermede ailem bana yardımcı olmaya isteklidir.
4. Sevinç ve kederlerimi paylaşabileceğim arkadaşlarım var.

Prof. Dr. Doğan Eker, Orta Doğu Teknik Üniversitesi, Psikoloji Bölümü.