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* This paper was presented at the Royal College of Psychiatrists, Regional Meeting in Bahrain, 28-30, October 1991

*Also, Published in the Egyptian Journal of Mental Health, Egyptian Association for Mental Health, 1992, 33, 45-67.

* Psychological Research in United Arab Emirates and Egypt. Anglo Egyptian Bookshop .1995.chapter 11

# The nature of adolescent depression in UAE

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**Abstract:**

This study examines the nature of adolescent depression in United Arab Emirates. The emphasis is on the frequency, components, age and sex differences of depression in the normal adolescent native population in UAE. Four hundred and thirty five 7th, 8th, 9th, and 10th grade students (223 females, & 212 males) from three Emirates volunteered to complete the Children's Depression Inventory (CDI). Data were analysed in order to answer the following questions:

(1) What is the frequency distribution of depression in the native adolescent population?
(2) Are there age and sex differences related to depression in the aforementioned population?
(3) What are the major components of depression in this population?

**Findings indicated that** :

(1) Depression, as measured by the (CDI) is reported at relatively low levels in the normal native adolescent population. Graphically, the sample depression score distribution can be described as being slightly skewed to the right, thus indicating a tendency towards low levels of depression, and the population distribution seems to depart from normality.
(2) A clear pattern of sex differences in depression was apparent, but no age difference was found in this population.
(3) The major components of depression in this population were identified as :

1-General Anhedonia, 2- Indecisiveness. 3- Hopelessness.

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4- Loneliness. 5- Decline in school performance.
6 – self- deprecation (via peer comparison).7-sleep disturbance,8-pessimistic worrying and anaerobia at school .

The results are discussed in the light of previous studies in the literature. Implications for counseling and future research are presented.

## Introduction

Adolescence is usually considered to be the period between the age of 12 and 21, and most authorities (Miller, 1974; Werkman, 1974, Cited in Goldenberg, 1977 P. 342) now agree that it should actually be viewed as having three developmental phases: early adolescence (12-14 years), middle adolescence (15-17 years), and the late adolescence (18-21 years). Each of these three periods has its own characteristic set of challenges and tasks to be mastered. Early adolescents must cope with the impact of their sexual drives, with the acceptance of developing physiques, with the need to begin to establish themselves as independent individuals, with adaptation to the larger social network of the school, and much more, depending upon the individual's life experiences. Needless to say, the potential for psychological disturbances during this period is greet. Middle adolescence is characterized by rebellion against adult values and standards. This is part of the teenager's struggle to develop satisfactory relationships outside the family, with peers, and to establish a separate identity. The 15- to 17 year old is likely to be exceedingly self-centered and preoccupied with his/her body and its demanding sexual urges, which are coped with through fantasy. An increase in aggressive behavior manifested through sports, fighting, or antisocial, delinquent acts are common. If a particular individual is going to experience adolescent turmoil, it is most likely to occur during the period of middle adolescence (Goldenberg, 1977, pp. 342-343). Late adolescence – from Erikson's viewpoint – is a time in which one integrates the identity elements that one has formed in the earlier years into an identity that involves both a sense of what one uniquely is and a sense of what one fundamentally shares with others. The nature of adolescence as described above sheds light on the serious effect of the early and middle adolescent phases, whether on late adolescence or adulthood. Goldenberg (1977, p. 344) believes that the psychological disorders which occur in adolescence represent failures in

development during this period, or inability to cope with the particularly stressful demands of adolescence.

Depression is one of the psychological disorders which occur in adolescence and may take the from of restlessness, which is associated with sulkiness, withdrawal from social activities, and reluctance to cooperate with family activities. Lack of attention to school work as well as to personal appearance may also be seen in adolescent depression (Kashani et al., 1981, p. 146).

Recent intense interest in depression symptoms in adolescents has raised fundamental questions concerning the nature of depression in this age group, such as:

Is there any entity called adolescent depression? Are these "real" disorders that need to be characterized more specifically, or do the visible symptoms represent an adaptive – developmental reaction? (Kupfer, & Frank, 1981, p. 24).

Albert, & Beck (1981, p. 198) in their study of 63 students in 7$^{th}$ and 8$^{th}$ grades (27 females and 36 males), using the short form of the Beck Depression Inventory, found that 35% of this early adolescent school population had significant levels of depression. They suggest that depression appears to be more prevalent in early adolescence than in adulthood. Albert & Beck believe that, the prevalence of depression in adolescence can be indicative of a critical developmental period in which more depressive symptomatology can be elicited, and , an increase in depressive symptoms because of additional academic and social demands as the student moves into adolescence. (Ibid , 199).

Nelson, and his colleague (1987, pp. 43-48) in their study of 305 teenage adolescents psychiatrically hospitalized (ranging from 13 years to 18 years) (125 females and 180 males) found that the second most frequent major diagnostic category involved "Affective Disorders" which included 24% of their sample .

Until recently, there have been no quantitative data in UAE to indicate whether depressive symptomatology is present in adolescent native population, and, if it is, what is its nature?

The present study examines the nature of adolescent depression in UAE. The emphasis will be on the frequency, components, age and sex differences of depression in the normal native adolescent population .

Because of the importance of the early and middle phases of adolescence, the study will be limited to these two phases. To accomplish its objectives, the study addresses the following questions:

1. What is the frequency of depression in the normal native adolescent population of the UAE?
2. Are there age and sex differences related to depression in the normal native adolescent population of the UAE ?
3. What are the major components of depression the normal native adolescent population of the UAE?

## Method:

## Subjects:

The subjects were 435 junior and senior high school pupils (223females, 212 males) all of whom were Emirates nationals. Their age was in the range of 12 to 18 years, and they were enrolled in the seventh, eighth, ninth, and tenth grades. The subjects were chosen from three Emirates: Abu – Dhabi, Dubai, and Sharjah.

## Measures used

The Children's Depression Inventory (CDI) (Kovacs, 1983, 1985) was the only measure used in this study. The CDI is a self- report inventory consisting of 27 multiple choice items designed to assess the presence of symptoms of depression. Each item consists of three statements graded from "0" to "2", in the direction of increasing severity. Thus, the total score can range from 0 to 54. (Kovacs, 1985, p.995) .

The twenty seven items reflect the following symptoms: 1-. sad mood, 2- Hopelessness/pessimism, 3- self-deprecation, 4- General anhedonia, 5- Acts bad, 6- Pessimistic worrying, 7- Self-hate, 8- Self-faulting, 9- Suicidal ideation, 10-Crying , 11-. Low frustration tolerance, 12-Reduced social interest, 13-Indecisiveness , 14- Negative body image, 15-Reduced motivation for school work, 16- Sleep disturbance, 17- Fatigue , 18-Reduced appetite, 19- Somatic concerns, 20-Loneliness, 21-Anhedonia at school, 22- Friendlessness/social isolation, 23- Decline in school performance, 24- Self-deprecation (via peer comparison), 25- Feeling unloved, 26- Disobedience, 27- Social problems.

The CDI was translated into colloquial Arabic, prepared, and standardized in Egypt by the present author (Ghareeb, & Beshai, 1989, pp. 322-326), and into classical Arabic in UAE (Ghareeb, 1990). Many studies

demonstrated the CDI reliability and validity in Western Countries (Kovacs, 1983, 1985). Ghareeb and Beshai (1989) demonstrated the reliability and validity of the colloquial Arabic version of the CDI. In UAE, four separate studies of test-retest reliability were conducted for the classical Arabic version of the CDI on samples of eighth and ninth grades. Test-retest reliability in a sample of 25 females eighth graders (nationals) yielded an r of 0,76 over a nine day interval. Test-retest reliability in a sample of 24 females eighth graders (non-nationals) yielded an r of 0,83 over a nine day interval. Similarly, a sample of 24 male ninth graders (nationals) yielded an r of 0,92 over a 7- day interval. For a sample of 31 male ninth graders (non-nationals) an r of 0,91 over a 7- day interval was obtained. All reliability coefficients mentioned are significant at the 0,001 level (Ghareeb, 1990).

Three studies were conducted to evaluate the validity of the classical Arabic version of the CDI. The first study correlated the CDI with the Arabic version of the Beck Depression Inventory (BDI) (Beck et al., 1979, pp. 398-399; Ghareeb, 1984, 1985). In a sample of 52 boys (24 nationals, 28 non-nationals) from ninth and tenth grades, the correlation between the CDI and the BDI was 0,82. A second study examined the relation between depression as measured by the CDI and self-concept as measured by the Arabic version of the Piers-Haris Children's Self-concept Scale (Abdel-Hamed, & Al-Azaby, 1984). The two inventories were administered to a sample of 30 females and another one of 30 males, all of whom were eighth grade nationals. The correlation were -0,73 and -0,86, respectively (both P.S. < 0,001). (Ghareeb, 1990).

## Procedures

The CDI was administered on all subjects in a group setting. Previous research has shown that the CDI scores obtained in group administration don't differ significantly from those obtained in individual administration (Saylor, et al., 1984, Cited in Finch, et al., 1985, p. 424). The researcher administered the CDI on 90% of the sample, while five female graduate students administered the remaining 10%. The administrators ascertained that no items of the CDI were left unanswered. Items of the CDI were read aloud to the pupils in all grades to ensure a high level of standardization. Data were analyzed using two-way analysis of variance, and descriptive statistics.

## Results

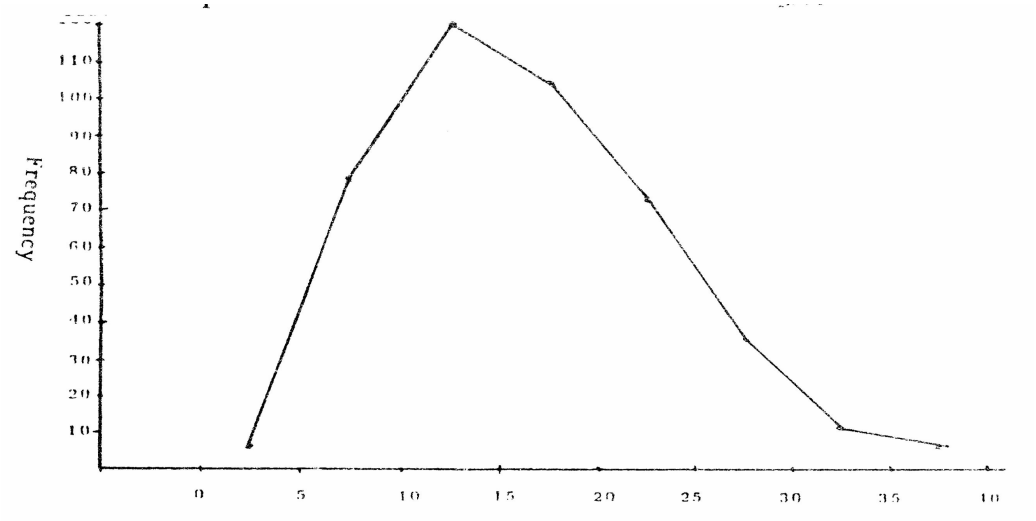
The mean score of the CDI for the whole sample (n = 435) is 15,71, with a standard deviation of 7,03. The corresponding score for males alone (n = 212) is 14,90 (S.D. = 6,85), and for females alone (n = 223) 16,48 (S.D. = 7,13). Scores on the CDI ranged from 0-40, and yielded a slightly positively skewed distribution. This feature of the population distribution of this study means that low scores on the CDI are more frequent than high scores.

Descriptive statistics for the entire sample and for each grade separately are presented in Table 1.

Table 1
Descriptive statistics for the entire sample and for each grade separately

| Grade | N | Dep. Mean | Dep. S.D. | Mean Of age | Age S.D. |
|---|---|---|---|---|---|
| 7 | 125 | 14.88 | 6.64 | 13.87 | 1,05 |
| 8 | 105 | 16.54 | 7.31 | 14.15 | 1,05 |
| 9 | 132 | 16.20 | 7.49 | 15.29 | 1,43 |
| 10 | 73 | 15.03 | 6.28 | 16.08 | 0,92 |
| Total | 435 | 15.71 | 7.03 | 14.74 | 1,42 |

Graph 1 demonstrates the aforementioned slight positive skewness of the CDI score distribution for total sample (Skewness = .5577545). The null hypothesis that the parent distribution is normal was tested and rejected (p = ,001)




Graph 1 the CDI scores for the total sample

Depressed subjects in the total sample were identified using a criterion of the CDI score exceeding the mean by one standard deviation. Seventy six subjects met with this criterion. The percentage of such depressed subjects in the total sample is 17,47%. On the other hand, the percentage of the depressed females is 10,57%; and the corresponding percentage males is 6,89%.

The results also showed that the age ranged from 12-18 years, with a mean of 14,74 years and standard deviation of 1,42. Because the standard deviations of age within different grades are very small, as indicated by Table 1, grade was used as a categorical variable reflecting age .

Table 2 shows the results of the analysis of variance for the effect of grade and sex on depression. The Table indicates that the interaction of sex and grade is not significant (F = 2,227, p = ,0795). This means that the effect of grade on depression is the same for adolescent males and females . In other words, the differences of the grade means in depression is the same for males and females. Also, for the total group, the mean depression score is not different for different grade ; since Table 2 shows that the main effect of grade is not significant (F = ,83, p = 0,4800).

Table 2
ANOVA for the effect of grade and sex on depression

| Source | DF | Sum of Square | Mean square | F value | Pr>F |
|---|---|---|---|---|---|
| Sex | 1 | 339,213523 | 339,.213523 | 7,01 | 0,0084 |
| Grade | 3 | 119,861269 | 39,.953756 | 0,83 | 0,4800 |
| Sex & Grade | 3 | 329,784219 | 109,928073 | 2,27 | 0,0795 |

With regard to sex ; Table 2 shows that the main effect is significant (F = 7,01, P = 0,0084). The mean score of the females (16,48, S.D. = 7,13) is higher than the mean score of the males (14,90, S.D. = 6,85).

The major components of depression were studied by using a method similar to that used by Kovacs, and Beck (1977 pp. 13-14); Nelson and his colleagues (1987, p.47) and Ghareeb (1990). Two approaches were used to address the question of the major components of depression in this study. The first was by calculating the percentage of subjects who endorsed either "1" (mild depression) or "2" (marked depression) on the CDI items in the total sample as indicators of major signs of depression. Table 3 shows the results of this approach.

Table 3
percentage of subjects who endorsed CDI item choices
greater than "0" (n = 435)

| CDI Item | Endorsed choices Greater than "0" % |
|---|---|
| General anhedonia | ,81 |
| Hopelessness/Pessimism | ,78 |
| Indecisiveness | ,73 |
| Decline in school performance | ,67 |
| Anhedonia at school | ,65 |
| Somatic concerns | ,62 |
| Pessimistic worrying | ,62 |
| Friendlessness/Social isolation | ,60 |
| Self-deprecation (via peer comparison) | ,59 |
| Reduced appetite | ,57 |
| Reduced motivation for school work | ,55 |
| Loneliness | ,54 |
| Sleep disturbance | ,50 |
| Negative body image | ,49 |
| Social problems | ,42 |
| Suicidal ideation | ,41 |
| Disobedience | ,40 |
| Self-faulting | ,40 |
| Reduced social interest | ,39 |
| Self –deprecation | ,33 |
| Low frustration | ,32 |
| Self-hate | ,32 |
| Fatigue | ,32 |
| Crying | ,29 |
| Sad mood | ,28 |
| Feeling unloved | ,26 |
| Acts bad | ,10 |

Table 3 shows that the major thirteen components (signs) of depression in the total sample studied are as follows : 1- general anhedonia, 2- hopelessness, 3-indecisiveness, 4- decline in school performance, 5- anhedonia at school, 6- somatic concerns, 7- pessimistic worrying, 8-

friendlessness/social isolation, 9- self-deprecation (via peer comparison), 10-reduced appetite, 11-reduced motivation for school work, 12- loneliness, 13- sleep disturbance. The above thirteen items were chosen to be the major components (signs) of depression in the sample studied on the grounds that they were endorsed by more than 50% of the total sample.

The second approach used in studying the major components of depression in the sample was by identifying the depressed subjects in the sample and then calculating the items more frequently endorsed by these subjects. For this purpose, a depressed subject was defined as one whose score on the CDI exceeds the total sample mean by one standard deviation. The sample's mean on the CDI was 15,71, the standard deviation was 7,03. Thus, the score of 23,00 on the CDI was the cut-off score for the above purpose.

Seventy six subjects met with this criterion (46 females, 30 males). The major components of depression for the depressed subjects are shown in Table 4.

Table 4
percentage of depressed subjects who endorsed CDI Item choices greater than "0" (n = 76)

| CDI Item | Endorsed choices Greater than "0" % |
|---|---|
| General anhedonia | ,95 |
| Indecisiveness | ,95 |
| Hopelessness/Pessimism | ,93 |
| Loneliness | ,92 |
| Decline in school performance | ,92 |
| Self-deprecation (via peer comparison) | ,88 |
| Reduced social interest | ,87 |
| Sleep disturbance | ,84 |
| Suicidal ideation | ,82 |
| Pessimistic worrying | ,80 |
| Anhedonia at school | ,80 |
| Self-hate | ,80 |
| Negative body image | .80 |
| Reduced appetite | ,80 |
| Reduced motivation for school work | ,78 |
| Somatic concerns | ,78 |
| Friendlessness/Social isolation | ,76 |
| Self-faulting | ,76 |
| Low frustration | .75 |
| Social problems | ,74 |
| Fatigue | ,68 |
| Disobedience | ,66 |
| Sad mood | ,64 |
| Crying | ,64 |
| Feeling unloved | ,53 |
| Acts bad | ,36 |

It can be seen from Table 4 that 26 out of the 27 items constituting the CDI were endorsed by more than 50% of the depressed subjects. Using Table 3 and 4, and considering the first thirteen items in Table 3 endorsed by more than 50% of the total sample as signs of depression, it can be seen that nine of these items appear in the first thirteen major items in Table 4

endorsed by the depressed subjects. These nine items could be considered as the major components of depression in the sample of this study.

## Discussion

The major findings of the present study are:

(1) Depression as measured by the CDI is relatively low in the normal native adolescent population of the UAE. The mean score of the CDI for the whole sample studied (n = 435) is 15,71 (S.D. = 7,03 =. Scores in the CDI ranged from 0-40 yielding a slightly positively skewed distribution. Also, approximately 17% of the total sample studied could be considered as depressed persons. On the other hand, the percentage of depressed females is higher (10,57%) than the percentage of depressed males (6,89%).

This result agrees with those obtained in most of the studies done using similar age groups, except for the magnitude of the mean. Green (1981, p. 3890) in her study of 630 6th, 7th, and 8th grade students, found that depression, as measured by the CDI, is reported at relatively low levels in a normal adolescent population. Graphically, the depression scores distribution can be described as a normal distribution. The mean of the CDI score was 9,79 (S.D. = 7,0), with a range of 0-45. Smucker and his colleague (1984, p.30) in their study of 369 junior high grades (grades 7-9) (200 females and 169 males) found a mean CDI score of 9,59 (S.D. = 6,57) and a range of 0-38.

The only study available to the present author that used the CDI and was done in an Arab country is the one done by Ghareeb, and Beshai (1989, pp. 323-326). In their study of 2029 public school students in Cairo, Egypt, the authors found that the mean CDI score for junior and senior high school students, grade 7th to grade 10th, ranged from 16,01 (S.D. = 6,88) to 17,59 (S.D. = 6,13) for females (n = 488) and from 13,55 (S.D. = 5,99) to 14,98 (S.D. = 6,47) for males (Ibid. p.325).

It can be seen that there is a similarity between the CDI male and female means obtained in the present study and those obtained in Ghareeb and Beshai study (1989).

(2) The results of this study indicate that there is no difference in depression related to age, but there are differences in depression related to sex in the normal native adolescent population of UAE. With regard to the differences in depression related to sex, these differences were found in

both the intensity and the frequency of depression. Adolescent girls have higher depression score than adolescent boys, and the ratio of male/female depressed subjects is approximately 2:3.

This result agrees with the majority of studies done using similar age groups. On one hand, Green (1981, p. 3890) in the study mentioned before, found that no clear pattern of age and sex differences for depression was apparent. Also, Smucker, et al. (1984 p. 31) in the study reviewed earlier, did not find sex differences in depression.

On the other hand, Ghareeb (1987, P. 10) in his study of 400 Egyptian youth of age 15-20 (200 males and 200 females), using the short form of the Beck Depression Inventory (BDI), found that the depression of the Egyptian females adolescents is more intense than that of the Egyptian male adolescents, and that the ratio of depressed male and female adolescents was 1 : 2 Ghareeb (1988, P. 47) in his study of 757 Egyptian subjects (400 males and 357 females) of age 15-35, using the short form of the BDI, found in the subsample of adolescents (n = 160, 80 males and 80 females), that there was significant sex difference in the severity of depression, with female adolescents having higher depression scores than male adolescents. Nelson, and his colleague (1987, p. 44) found that there is a greater discrepancy between the CDI scores of boys and girls in the late years (adolescence) than in the earlier years (preadolescence). The authors mentioned that, the two-way analysis of variance indicated a significant main effect of gender, with girls reporting more depression than boys, but no main effect for age. Also, there was not a significant interaction between age and gender. Nelson and his colleague used a one-way ANOVA, and found that for the teenage group in their study (13 years of age and older), female subjects reported a higher levels of depression than male subjects, but there was no such gender differences for the preteen group (under 13 years of age).

Teri (1984, Cited in Nelson et al., 1987, p.48) using the BDI, found there were no gender differences in self-reported levels of depression for adolescents, but that female adolescents reported very high levels of depression more frequently than male adolescents. . Nelson and his colleague believe that the relation between sex and depression holds only for adolescents and not for younger children. Ghareeb, and Beshai (1989,

p.325) in their study of an Egyptian sample found that sex differences in depression begin to emerge among adolescents during grades 7 to 10.

In the most recent study available to the present author and dealing with sex differences in depression, Girgus, and her colleague (1989, p. 6) in a study of 300 adolescents of age 11, 13, 15 years (one hundred subjects from each age), and using the (CESDS), the Center for Epidemiologic Studies Depression Scale, found that at each age, girls were more depressed than boys, and a higher percentage of girls than boys had extremely high score (defined as scores that are more than one standard deviation above the mean).

In an attempt to explain why sex differences in depression emerge during adolescence, Girgus and her colleague (1989, p. 12) pointed out that five factors account for these differences, namely: body dissatisfaction, life events, and popularity, rumination, and sex roles. The authors found in their study, that girls are more dissatisfied with their emerging adolescent bodies, and they increasingly wish they were thinner than they are. Adolescents who are dissatisfied with their bodies are more depressed than adolescents who are satisfied with their bodies. Also, the authors found that, the more time adolescents spend on feminine-stereotyped activities, the more depressed they are. Girls spend more time on feminine -stereotyped activities and boys spend more time on masculine-stereotyped activities.

Girgus and her colleague summarize their findings on sex differences in depression during adolescence by suggesting that adolescent girls are more depressed than adolescent boys because of a combination of two factors: first, adolescent girls are more dissatisfied with their bodies than adolescent boys, and second, adolescent girls spend more time on feminine -stereotyped activities than adolescent boys.

(3) The results of this study indicate that there are major signs of depression in the total sample studied, and that there are major components of depression in the depressed subsample. The major nine components of depression in this study are, in a descending order of frequency: 1- general anhedonia, 2- indecisiveness, 3- hopelessness/pessimism, 4- loneliness, 5- decline in school performance, 6-self-deprecation (via peer comparison), 7- .sleep disturbance, 8-pessimistic worrying, and 9-anhedonia at school.

Although the importance of the other items endorsed by the depressed subjects cannot be denied, the nine items mentioned seem to be

more important as major components of depression since they were endorsed by both the total and depressed samples.

It can be hypothesized that these nine signs had first appeared as signs of emotional states (depressed mode) in currently depressed adolescents, but were ignored or not taken seriously by parents and other adults. This led to their persistence and ultimately turned them into symptoms of the depression syndrome (Ghareeb, 1990, p. 17)

Comparing our findings related to the major components of depression with those of another study that used a method similar to ours, and used the CDI, namely. Nelson et al. (1987, p. 47) we find similar results. Because Nelson and his colleague studied two sample, a younger age group, and an older age group, the present author calculated the percentage of the subjects in the older age group (age 13 to 18 years – n = 305) who endorsed item scores higher than "0" on the CDI. The results were the following in a descending order:

1- loneliness, 2-general anhedonia, 3-anhedonia at school, 4-hopelessness/pessimism, 5-suicidal ideation, 6-indecisiveness, 7-sleep disturbance, 8-self-faulting, 9-self-deprecation (via peer comparison).

Comparing the results of the depressed subjects in the present study with the Nelson et al. results of the adolescents, it can be seen that there is an almost full agreement on the major components of depression in the adolescence sample. Both studies agree on the following components: 1-loneliness, 2-general anhedonia, 3-anhedonia at school, 4-hopelessness /pessimism, 5-indecisiveness, 6-sleep disturbance, 7-self-deprecation (via peer comparison).

The results of this study point out to some crucial areas of further inquiry. First, the interpersonal contexts (i.e., family, school, peer groups) that play a crucial role in the development and expression of adolescents' cognitive, behavioral, and affective processes need to be examined more critically. That is, situational determinants of depression need to be taken more seriously. Second, it is important that additional studies be carried out to estimate the frequency of depression in this age group. Later studies should attempt to identify variables which may increase or decrease adolescent depression. These variables would include the educational philosophy of the school, homogeneity of classes, private vs public education, teacher personality, and effects of the grading system.

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