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Study of adolescent depression

Loren S. Vranish
University of Nebraska Medical Center

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A STUDY OF ADOLESCENT DEPRESSION

by

Loren S. Vranish

1969

A THESIS

Presented to the Faculty of

The College of Medicine in the University of Nebraska

In Partial Fulfillment of Requirements

For the Degree of Doctor of Medicine

Under the Supervision of

Emmet M. Kenney, M. D.

Omaha, Nebraska

February 1, 1969
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INTRODUCTION

In the past the emphasis in research was placed on the developmental stages of adult and child, neglecting the period of transition or adolescence. It is currently recognized that many of the physical and emotional changes that occur in adolescence are destined to profoundly affect not only the present but the future mental health of the person. No longer is it possible to clinically describe or treat the adolescent in the same manner as an adult patient. Supplementary concepts are formulating in the field of adolescent mental illness, including the area of adolescent depression.

The purpose of this research paper is to further elucidate the phenomena of depression in adolescence. Immediate goals of the research are the eliciting of a gross incidence of depressive manifestations in adolescents and to evaluate certain factors in their relationship to the occurrence of depression.

A short literary review of depression and a brief resume of the dynamics of adolescence and adolescent depression are presented. These reviews are for the purpose of placing adolescent depression within the broad spectrum of the depressions which range from anaclitic depression to involutional melancholia and to better understand similarities and differences between the many types of depressions.
For the measurements of adolescent depression, the self-rating depression scales which were developed by Doctor William Zung will be employed. Doctor Zung is associated with the Department of Psychiatry of the Veterans Administration Hospital and Duke Medical Center. Previous research has proven this test to be reliable and valid in rating depression in any age group. The test consists of twenty short questions regarding symptoms and each answer is chosen from four relative degrees of occurrence.

The self-rating scale was administered to approximately 450 adolescent students from various backgrounds. The testing population includes four different school systems and a hospital adolescent inpatient service. Questions asked of each student are sex, age, race, and if living with both natural parents.

Logan Fontenelle Junior High School in Bellevue, Nebraska, was chosen for the high prevalence of adolescents who are military dependents. This selection may prove the resultant effects of frequent changes in schools and peer groups to be significant to depression.

Westside High School, Omaha, Nebraska, can be typified as "suburbia", where the upper-middle class parents are striving and arriving. The pressures of this environment may prove to be an influence on the occurrence of depression.

Creighton Prep High School, Omaha, Nebraska, is relatively expensive, non-resident, Catholic boy's school, with an annual tuition of $700. What significance these
factors have on depression may be better clarified.

Boys' Town, Omaha, Nebraska, is a living situation in which most of the adolescents are from broken homes and/or delinquent backgrounds. The students live and work together within the complex, usually until completion of high school.

The scale was also administered to adolescent inpatients at Nebraska Psychiatric Institute.

A statistical summation of the research material will be presented and discussed. The collected data should provide an estimation of the gross incidence of depression in the adolescent population and an estimation of the important significant factors relative to the occurrence of depression among adolescents.

DEFINITION

An accurate definition of depression has long been an enigma in psychiatry. The classification of depression types has resulted in various systems each bearing incongruities. It is likely that these inconsistencies have been due to lack of genuine understanding of depression.

Depression is defined by the Psychiatric Dictionary as being a:

....clinical syndrome, consisting of lowering mood-tone (feelings of painful objection), difficulty in thinking, and psychomotor retardation. The general retardation, however, may be masked by anxiety, obsessive thinking, agitation in certain depressions, especially those of the involutional period.
The initial observations and recordings of depression date back to antiquity with references made by Hippocrates, the Bible, and Shakespeare to name a few. The frequency of its appearance in ancient writings suggests that depression was not an uncommon illness to our ancestors.

More recently, Karl Abraham (1911) interpreted clinical material and formulated his theory that the depressed person has strong oral-sadistic tendencies related to cannibalism. This oral fixation or regression could, he felt, explain the loss of appetite predominant in the depressed. Abraham considered depression to have obsession-like qualities i.e. a neurotic is attacked with anxiety when his instincts strive for a gratification which repression prevents him from attaining. Depression develops when he gives up his sexual aim without achieving gratification. Abraham noted that depression possessed many ego-centered features. He also observed displays of intense ambivalence toward love objects. Primal depression is another tenet proposed by Abraham. The idea being that severe narcissistic injury occurring in early childhood predisposes the involved child to depression in later life.

Freud's concept of depression appears in his paper "Mourning and Melancholia" (1917). He draws a simile between the "work of mourning" and the "state of melancholia".
In grief, or mourning, there is an actual loss while melancholia is based on a symbolic loss. The internal work that ensues is the same for both processes.

In melancholia, the libido has been directed toward a narcissistic love object. Upon rejection by the love object, the freed libido is directed toward the self ego rather than toward another love object. This process is accomplished by identification of the ego with the abandoned object. The loss of the love object has now become a loss of self. Despite the conflict with the love object, the love relationship need not cease. Due to the decrease in ego through loss of self-esteem, the balance between the ego and superego is lost. The superego overpowers the ego. (In mania a fusion of the ego and superego occurs and the energy previously required for maintaining the balance between the two is now directed solely toward the environment.)

Freud prescribes three conditioning factors for depression:

1. loss of love object both common in grief
2. ambivalence
3. regression of libido into ego

A considerable amount of the classical work in the study of depression has been contributed by Emil Kraepelin. He classified the types of depression and rendered clinical descriptions of each. Kraepelin proposed the phrase "manic depressive" in 1896. He opined that the manic
depressive has an innate predisposition toward his illness and the external factors are subordinate. Many of Kraepelin's descriptions of depression have been transplanted from textbook to textbook, thus contributing to the present day confusion of terminology in description.

Sandor Rado conceived of depression as being initiated in the early frustrations met at the mother's breast. Normally, the child's cries of hunger are satisfied by food being given to him. However, in some relationships with the mother frustrations of the desire evolve. This establishes a pattern which in later life consists of guilt - atonement - forgiveness. The ego attempts to punish itself in order to prevent parental punishment all in the hope of future forgiveness and love.

Rado viewed those predisposed to depression as being wholly reliant on maintaining their self-esteem through narcissistic supplies. They demand ample gratification from others expecting to give little of themselves in return. Withdrawal of the object choice causes the person to be extremely aggressive or to become withdrawn and self-punishing.

The concept of the good and bad ego originated with Rado. The infant regards his mother as either totally good or totally bad. Ambivalence is established only when both of the feelings are simultaneously attributed to the same person. As the superego develops, it assumes the good qualities while the bad qualities remain in the domain of the ego. Sadism has been incorporated into the superego,
thus the superego now punishes the bad in the ego. The purpose of this punitive process is two-fold:

1. destroy the bad allowing the good to remain
2. provide for a release of aggression.

6 Otto Fenichel noted that narcissistic injuries that may occur during the stage of oral-oriented ego may lead to a depressive disposition. Regression to or fixation upon the state in which the self esteem is regulated by external supplies causes the individual to vitally depend on these supplies. Nonfulfillment of these narcissistic needs diminishes the self esteem to a dangerous level. Severe depression is manifested by the state in which the external supplies inadequately meet the narcissistic demands of the orally dependent person. Mild depression warns that the self esteem is in desperate need of bolstering. Drugs and obsessive hobbies frequently provide the necessary supplies to the narcissistic ego.

7 According to Helene Deutsch, agoraphobia, in which the aggression cannot be directed anywhere, resembles depression, where the aggression is directed inward. She alleged that the depth of regression, the inner fate of object-relationships and the process of decompensation with release of destructive tendencies comprise significant factors in depression.

Dr. R. Grinker, et. al. in 1961 published The Phenomena of Depression after studying many different aspects
of depression. They generally were interested in being able to define and classify depression. After analysis of the collected data, four different factor patterns were developed.

**A. Feelings:** Dismal, hopeless, loss of self esteem, slight guilt feelings
**Behavior:** Isolated, withdrawn, apathetic, speech and thinking slowed with cognitive disturbances

**B. Feelings:** Hopeless with low self-esteem, considerable guilt feelings, high anxiety
**Behavior:** Agitation and clinging demands for attention

**C. Feelings:** Abandonment and loss of love
**Behavior:** Agitated, demanding, hypochondriacal

**D. Feelings:** Gloom, hopelessness and anxiety
**Behavior:** Demanding, angry, provocative.

Depression occurring in the first year of life was studied by Rene Spitz who termed these depressions "anaclitic". In Spitz's opinion the etiology is the deprivation of a "good" mother. The amount of damage produced is in direct proportion to the length of deprivation of the mother. Thus the depression is quantitative in nature.

The libidinal and aggressive drives, which are correlated in the infant, are directed to the object which is the mother. When the infant is deprived of his mother, he is unable to direct these vectors outward. Anaclitic depression results as the vectors are directed toward the self.

The list of theories could continue, however, it is evident that some inconsistencies do appear. Further clinical investigation into depression is necessary in order
that more concise and pragmatic concepts will be developed which will be conducive in determining the etiology, the diagnosis and the treatment of the illnesses known as depression.

**DYNAMICS AND DESCRIPTION OF DEPRESSION**

The further discussion on depression must be based on an evaluation of the various clinical entities of depression. A recent classification of depression includes: psychoneurotic, psychotic, involutional, and manic-depressive.

The psychoneurotic depression is usually precipitated by a loss which results in a decrease of self-esteem and the supplementary need for narcissistic supply. The individual's superego, his aspiration (ego ideal), and his self image are highly contributory factors. The ego functions which are the individual's abilities and talents may impose limitations upon the achievement of the ego ideal. Insufficient parental acceptance with excessive parental devaluation tend to increase the child's need for ego supply. Excessive frustration coupled with ineffectiveness in one's social life and inadequate educational experiences decrease the strength needed to confront the environment of the individual.

Although the psychoneurotic depression may regress to an earlier self image, the degree of regression is less than the regression displayed by the psychotically depressed. If the regression encompasses more of the ego, a psychotic depression may develop.
The psychoneurotic is in need of and seeks much ego reinforcement. Although he appears unhappy, he is still accessible to the external environment. His depressed mood can be elevated by encouragement and reassurance. Treatment consists of psychotherapy and stimulating drugs.

The psychotic depressed may differ from the psychoneurotic depressed simply in a matter of degree. The individual becomes psychotic due to a greater stress, more cumulative stress, or a weaker initial ego strength.

In the psychotic depressed there is a considerable amount of regression. Incorporated with this regression is a gross misinterpretation of reality, which may be so imposing that delusions and hallucinations are observed.

The onset of a psychotic depression usually commences with a loss, although not as commonly as does the initiation of a psychoneurosis depression. When there is no grossly recognizable loss it must be realized that the important loss may have been symbolic.

The psychotically depressed individual overtly and covertly claims he is without worth and value. He is relatively inaccessible to outside reassurance and encouragement. ECT, drugs, supportive therapy, and hospitalization are the usual choices of treatment.

Melancholia (involutional psychotic) depression customarily occurs in females between the ages of 45 to 50 year olds, and five to ten years later in males. This illness
occurs three times more frequently in females than males. Precipitating causes are usually indiscernible, although occasional causes are retirement or a "change of life".

The premorbid personality is rudimental in this illness. It is anal-erotic (compulsive in nature), possessing a strongly inhibiting superego.

A clinical description is often "an agitated depression". Somatic complaints or delusions originating from the oral stage are frequently elicited. Treatment of choice is electroshock therapy.

The earliest recognized and most recorded psychiatric illness is manic-depression. The premorbid cyclothymic personality and the ensuing illness have persistently fascinated writers and scientists.

The salient characteristic of this illness is alternating moods. Although the initial attack may occur at any age, manic depression is most frequently manifested in the young adult. Neither mania nor depression is necessarily subsequent to the other.

This illness has been referred to as an endogenous depression on the basis of the apparent constitutional factors. Current research has not substantiated this theory.

Psychomotor retardation is prevalent in the clinical description of the depression. The manic individual is extremely active, displays flight of ideas, and becomes irritated when he encounters opposition. The manic stage
is an attempt of escape from the thoughts that lead to depression. Inhibiting the manic and stimulating the depressive constitutes the therapy.

Partial dynamics of manic depression originate with the mother-child relationship in which the infant becomes accustomed to receiving love and attention. As subsequent children are born into the family, the child is rejected. The family, which is usually in the marginal group of society, has great expectations for their young. The child, feeling that affection was withheld because he was "bad" for not measuring up to the expectations of his parents, attempts to regain parental love by working diligently. Thus is formed the foundation for future problems.

It was previously stated that endogeneous depression is exemplified in manic depression. Another term, reactive depression, refers to the reaction involved in an actual object loss. The reaction is disproportionate to the loss. The cause for the abnormal reaction may be constitutional or intrapsychic. Adolescents with their labile moods are susceptible to this type of depression. A possible reason may lie in the unestablished ego strength of the adolescent. Loss of the object decreases self esteem which further diminishes this ego strength.

A formula, \( D = S + P \), has been proposed for depression. Depression is equal to sadness plus pessimism. Pessimism adds the quality of unalterability. This pessimism
is constructed into the early personality framework. According to the formula, a sad event accompanied by a pessimistic outlook causes depression.

**ADOLESCENCE AND ADOLESCENT DEPRESSION**

Adolescence marks the metamorphosis from childhood into the mature adult. Above all things, adolescence is the "period of change". The only consistency is inconsistency. Formation, destruction and reconstruction dominate in this labile state of development. The mood bends from near mania and enthusiasm to the other end of the spectrum with sadness and pessimism.

The many physical, endocrine and emotional alterations occurring draw the child out of latency into adolescence. Sexuality brings with it new desire which laid dormant since the oedipal relationships. Anna Freud contended that the former balance is destroyed. The increased libido for the id's use results in aggressive behavior. The ego vacillates from id control as exhibited with exhibitionism and superego dominance with professing of self-righteous virtues. Three states determine the balance:

1. strength of id impulses (conditioned by physiological process at puberty)
2. ego tolerance or intolerance of instinct depends on character during latency
3. qualitative factors which decide the quantitative conflict - the nature and efficacy of defense mechanism at the ego's command.
Innate hostilities between the ego and the id manifest themselves as asceticism in the adolescent. Intellectualization is another common mechanism. Most adults have a decrease in intellectualizing when the id is strong, however, the adolescent reverses and tends to ponder the conflict.

With the increasing libido, the ego dreads the loss of boundaries between its self and the id. The adolescent turning from love objects assimilates new objects that they enjoy. These primitive identifications remain faithful to the adolescent. The requirement of several external objects prevents the excess libido from being directed back upon themselves. The passionate love objects become attempts at recovery.

Several goals face the adolescent in his period of growth. The adolescent must break his familial bonds so the necessary individual growth may be achieved. Also the choice of love objects with the concomitant adoption of a moral code and sexual identification are enormous undertakings for the adolescent. Finally the adolescent must establish some plans for future vocational choices.

With the greater inner turmoil, the narcissistic adolescent demands reinforcement from external stimuli. The objects chosen for narcissitic supply are intense but seldom very deep.
Lorand through clinical evidence pointed to ego-ideal development and identification process as the etiology of adolescent depression. Therapy needed to be directed toward ego expansion with correction of ego distortion.

Several factors commonly found in adolescents seemingly may contribute to the formation of a depression:

1. loss of any of the many external love objects
2. large and demanding need for constant narcissitic supply and (reliance on peer groups)
3. the underlying mood which can vacillate to pessimism
4. lack of a stable external identification
5. thin boundaries between the ego and id
6. fluctuating ambivalence toward love objects.

Most of the above factors can result in loss of self esteem which may be one area where adolescent depression resembles adult depression. A distinct difference between adolescent and adult depression may well lie in the clinical manifestation of each illness.

A form of infantile depression called anaclitic has been explained. Childhood depression may be manifested by truancy, temper tantrums and school phobia. Stewart Agras wrote that school phobia is a depressive anxiety and that the syndrome follows a natural history of affective disorders. The manifestations of adult depression have been previously illustrated.
What are common manifestations of adolescent depression? J. P. MacCurdy stated:

"Such depressions are so frequently seen in youth of both sexes that the term adolescent depression is not out of place. They are never pure depression because regressions are never complete. There are many anxieties and worries and much hypochondria with only a general background of depression." 17

School phobia, failure to take exams, and drop outs may all be masks of depression. Rose Spiegel found depression underlying anger and acting out. Kurt Glaser in a case study related learning difficulties over shadowing a depression. August Aichorn and Jacob Chwast stressed depression as a delinquent pattern. Drug and alcohol abuse may also hide depressive tendencies. Grinker, et al., found that an older person has more aggravated external signs of depression. With the adolescent, the external depressive manifestations are even more confusing. If any factor pattern of Grinker's could be applied the most likely would be types C and D. Masterson and Washburne wrote that relatively healthy adolescents showed episodic affect, expressed by feelings of inadequacy. While the more intense had suicidal preoccupations.

Suicides as an "acting out" behavior in adolescents is a concept accepted by many. Since depression exhibits often as "acting out" then it may be possible that successful suicides are indeed some index of the amount of depression that exists. Through a long series of external love object losses, the directional vectors of libido may well be turned
on the patient himself with resultant suicide. Teicher \(^{24, 25}\) and Jacobs \(^{26}\) noted long standing histories of love object losses in adolescents who attempt suicide. Toolan found depressive equivalents in many suicides and suicidal attempts. The rate of successful suicide of 15 - 24 year olds in 1950 was \(4.5/100,000\) and in 1964, \(6.0/100,000\). \(^{27}\) Age adjusted rates has shown a slight upward trend.

All these findings contribute to a high suspicion of frequent adolescent depression. The author feels that successful suicides may be manifestations of depression. Some attempted suicides, however, may well be simply maneuvers for manipulation of important people and not in the correct sense a depressive equivalent.

**RESEARCH PROCEDURES**

Evaluation of depression would require some accurate means of measuring this psychiatric illness. A relatively simple examination that could be easily administered to large numbers was needed. The requirements were short in length, self-administrated, easy to evaluate, little bias in evaluation, and primary diagnosis of depression. \(^{28, 29}\) A self-rating depression scale by Dr. William W. K. Zung was chosen for the survey.

The examination consists of 20 questions that can be answered by four different relative answers. One to four points are given to each answer with four points going to the highest equivalent of depression and one for the least. An index for the Self-Rating Depression Scale (SDS)
is determined by the \((\text{total number of points on the twenty questions} / 80) \times 100 = \text{SDS index}\). SDS index scores correlate as follows:

<table>
<thead>
<tr>
<th>SDS INDEX</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 - 40</td>
<td>no indication of depression</td>
</tr>
<tr>
<td>40 - 60</td>
<td>some indications of depression</td>
</tr>
<tr>
<td>60 - up</td>
<td>depressive in character</td>
</tr>
</tbody>
</table>

See Chart on Page 20

The SDS scores correlate regardless of the age, sex, marital status, educational level, or annual income.

The populations included for testing were four different school systems, Nebraska Psychiatric Institute, and Boys' Training School at Kearney. The data from Kearney was collected and compiled by Mr. Donald F. Wermers, a staff sociologist at the Creighton University School of Medicine.

The examinations were given to the schools at the beginning of the 1968-1969 school year. Similar administrated procedures were followed among the test samples. No names were required on the examinations. If questions were not answered (as frequently numbers 6 and 8 were not), they were assigned a score of one. Only one examination was removed from the sample because of irregularities. Questions asked of each student were their age, sex, race, and whether living with both natural parents.

Description of the different school systems can be found in the introduction. The Boys' Training School located in Kearney, Nebraska, is a state institution for delinquent boys between the age of 12 and 21. The 1966 average daily
<table>
<thead>
<tr>
<th></th>
<th>None or a little of the time</th>
<th>Some of the time</th>
<th>Good part of the time</th>
<th>Most or all of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>I feel down-hearted and blue</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Morning is when I feel the best</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.</td>
<td>I have crying spells or feel like it</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.</td>
<td>I have trouble sleeping at night</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.</td>
<td>I eat as much as I used to</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.</td>
<td>I still enjoy sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.</td>
<td>I notice that I am losing weight</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.</td>
<td>I have trouble with constipation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9.</td>
<td>My heart beats faster than usual</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10.</td>
<td>I get tired for no reason</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11.</td>
<td>My mind is as clear as it used to be</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12.</td>
<td>I find it easy to do the things I used to</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13.</td>
<td>I am restless and can't keep still</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14.</td>
<td>I feel hopeful about the future</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15.</td>
<td>I am more irritable than usual</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>I find it easy to make decisions</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>I feel that I am useful and needed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>My life is pretty full</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>I feel that others would be better off if I were dead</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>I still enjoy the things I used to do</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Questions:

1 - 2 Deal with pervasive affect equivalents
3 - 10 Deal with physiological equivalents
11 - 20 Deal with psychological equivalents
population was 251. Each of the residents was committed by a State of Nebraska Juvenile Court.

HYPOTHESES

A high incidence of depression was expected due to the relative internal instability of the adolescent, emphasis upon their peer groups, and the fluctuations of intra-familial demands all of which are factors of influence appearing in the stage of adolescents.

Boys' Town index of scores were anticipated to be high because of the history of delinquency and disruption of the family ties. Bellevue, where dependents of the military service comprises a large percentage of the school's population, was felt to be possibly another area of a higher incidence. While peer group relationships are so valuable to development, this adolescent has to be making frequent adjustments to new peers.

In regard to the differences between sexes, the female adolescent was expected to score higher than the male. The reason being different expectations and demands placed upon the adolescent female.

With the family playing such a key role in the development of the adolescent, those adolescents separated from their natural parents would exhibit more manifestations of depression. Beck, et. al. found that childhood bereavement leads to later adult depression. Does it also lead to adolescent depression? Effects of race was uncertain.
### DATA RANGES

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>AGE RANGE (YEARS)</th>
<th>NUMBER</th>
<th>RANGE OF SDS SCORES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creighton Prep</td>
<td>13 - 18</td>
<td>108</td>
<td>29 - 64</td>
</tr>
<tr>
<td>Bellevue</td>
<td>13 - 15</td>
<td>88</td>
<td>31 - 65</td>
</tr>
<tr>
<td>Boys' Town</td>
<td>14 - 18</td>
<td>78</td>
<td>28 - 76</td>
</tr>
<tr>
<td>Westside</td>
<td>16 - 19</td>
<td>110</td>
<td>30 - 80</td>
</tr>
<tr>
<td>N.P.I.</td>
<td>13 - 18</td>
<td>12</td>
<td>33 - 74</td>
</tr>
<tr>
<td>Kearney</td>
<td>13 - 18</td>
<td>54</td>
<td>38 - 81</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>13 - 19</strong></td>
<td><strong>450</strong></td>
<td><strong>28 - 81</strong></td>
</tr>
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</table>

### SEX

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>MALE</th>
<th>FEMALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bellevue &amp; Westside</td>
<td>113</td>
<td>84</td>
</tr>
</tbody>
</table>

\( \bar{x} = 37.027 \) \( \bar{x} = 36.952 \)

(Not SDS)

### NATURAL PARENTS

<table>
<thead>
<tr>
<th>SCHOOL</th>
<th>NUMBER NOT WITH NATURAL PARENTS</th>
<th>PERCENTILE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Creighton Prep</td>
<td>9</td>
<td>8.3%</td>
</tr>
<tr>
<td>Bellevue</td>
<td>11</td>
<td>18.2%</td>
</tr>
<tr>
<td>Westside</td>
<td>17</td>
<td>15.5%</td>
</tr>
</tbody>
</table>
Group #1 - with natural parents
Group #2 - not with natural parents

<table>
<thead>
<tr>
<th>GROUP #1</th>
<th>GROUP #2</th>
</tr>
</thead>
<tbody>
<tr>
<td>#</td>
<td>262</td>
</tr>
<tr>
<td>( \bar{x} )</td>
<td>35.954</td>
</tr>
</tbody>
</table>

(Not SDS)

SCHOOLS

<table>
<thead>
<tr>
<th>C.P.</th>
<th>BELL.</th>
<th>B.T.</th>
<th>W.S.</th>
</tr>
</thead>
<tbody>
<tr>
<td>#</td>
<td>108</td>
<td>88</td>
<td>78</td>
</tr>
<tr>
<td>( \bar{x} )</td>
<td>35.287</td>
<td>35.375</td>
<td>39.718</td>
</tr>
<tr>
<td>( \bar{y}^2 )</td>
<td>40.5</td>
<td>37.2</td>
<td>52.7</td>
</tr>
<tr>
<td>SDS</td>
<td>44.11</td>
<td>44.12</td>
<td>49.63</td>
</tr>
</tbody>
</table>

AGE

Mean 15.12 years
Standard Deviation 0.93 years

AGE CORRELATION

Correlation between score and age

\( r = 0.15 \)

SCORES

<table>
<thead>
<tr>
<th>SDS SCORE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
</tr>
<tr>
<td>Standard Deviation</td>
</tr>
</tbody>
</table>
**Table 24.**

### Distributions of SDS Scores Among the Different Groups

<table>
<thead>
<tr>
<th>Column #</th>
<th>School and Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Creighton Prep High School</td>
</tr>
<tr>
<td>2</td>
<td>Logan Fontenelle Junior High School (Bellevue)</td>
</tr>
<tr>
<td>3</td>
<td>Boys' Town</td>
</tr>
<tr>
<td>4</td>
<td>Westside High School</td>
</tr>
<tr>
<td>5</td>
<td>Nebraska Psychiatric Institute (adolescent inpatient)</td>
</tr>
<tr>
<td>6</td>
<td>Boy's Training School (Kearney)</td>
</tr>
</tbody>
</table>
ANALYSIS OF THE DATA

DIFFERENCES AMONG THE SCHOOLS: The variance \( \chi^2 \) (\( \sqrt{\chi^2} \) SD) of each school varied from 52.7 in the Boys' Town study to 37.2 in the Bellevue study. This difference in variance could not account for difference in the means.

SUMMARY ANALYSIS OF VARIANCE

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of Squares</th>
<th>df</th>
<th>(Mean Square)</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>1306</td>
<td>3</td>
<td>435.3</td>
<td>9.48*</td>
</tr>
<tr>
<td>Within</td>
<td>17412</td>
<td>379</td>
<td>45.9</td>
<td>--</td>
</tr>
<tr>
<td>TOTAL</td>
<td>--</td>
<td>382</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

*(p < .01); a F value of this magnitude means with 3 and 379 degrees of freedom would be obtained by random sampling from the same population (Ho = null hypothesis) less than 1/100 times.

To determine which schools varied from one another the Duncan Multiple Range Test was applied. Since this test assumes equal n's (numbers within groups), a harmonic mean was used (\( \bar{n} = 93.7 \)).

School #1 - Creighton Prep

#2 - Bellevue

#3 - Boys' Town

#4 - Westside
Findings:

1 - 4 \( p < .01 \)
1 - 3 \( p < .01 \)
2 - 4 \( p < .01 \)
2 - 3 \( p < .01 \)
1 - 2 \( p > .01 \) (not significant)
3 - 4 \( p > .01 \) (not significant)

Sex: A "t" test determination gave a \( t = 1.192 \)
df = 195 \( (p > .05) \). Sex difference showed no statistical
significance.

Natural Parents: A (two tailed) "t" test with
df = 302 gave a \( t = 2.87 \) \( (p < .01) \). Those adolescents
that were not living with their natural parents showed a
statistically higher score of depression.

Race: A "t" test determination gave a "t" value
of 0.59 which was not statistically significant at the
\( (p > .05) \) level.

Correlation with Age: Using the Pearson Product
Moment, a correlation between age and score gave a \( r \) value
\( = 0.15 \). The correlation was significant at the \( (p < .01) \)
32, 33

level.

CONCLUSIONS

Two main questions were attempted to be answered
by the design of the research project. First, was finding
the frequency of depression among the adolescents. Next
was to find factors which may contribute to adolescent
depression.
If we combined Creighton Prep., Bellevue, and Westside schools, 28.1% of the students showed scores indicative of depression (SDS score \( \geq 50 \)). Boys' Town was 48.8% while Kearney was 53.5%. If the score were made higher (SDS score \( \geq 60 \)), and even more indicative of depressive illness then the three schools had a 6.2%, Boys' Town 14.3%, and Kearney 22.2%. All of this data confirms the suspicion of a rather high incidence of depression within our adolescents. A percentage among "normal" schools of 6.2% must be considered significant.

What factors do and do not contribute to this high incidence? The data showed that sex alone could not be considered an important contributor. A slight correlation with age was found, with a small increase in SDS scores as the students became older. No difference was found between the races. However, the students tested for this analysis were from rather controlled groups (Boys' Town and Kearney). In both schools, many students have delinquent backgrounds and all are separated from their families. To better evaluate the factor of races, the depressive scale should be given to a school that contains different races and fulfills the above two requirements. This could be an area of further study.

Definite correlations were found with regard to students living with their natural parents. Students not with both natural parents had higher scores. The stability
offered by the immediate family is very important to the adolescent himself as to whether or not he becomes depressed.

To explain the differences between the different schools much has to be hypothesized. Boys' Town's and Kearney's high scores can be explained by two different factors: (1) being the separation from the family and (2) delinquent behavior. Delinquency and "acting out" may well be manifestations of depressions. This had not been verified but is suggestive in this study. To further evaluate the subject, those students that scored high could be observed and interviewed for behavior and manifestations. Kearney's scores if used alone, might be explained by the school's environment leading to depression. However, coupled with Boys' Town where the environment is improved, it can be better explained by delinquency. Being separated from the immediate family may have some degree of importance but probably is secondary to the above behavior.

Westside's high score can not be explained by a greater percentage of broken families. Therefore, other factors come into prominence. The important factors may still lie within the family complex. These rising middle class families may apply added pressures scholastically and socially. The immediate family though present may not add the needed stability or investments required of their offsprings.
Bellevue's low scores were unexpected. Bellevue's school population has many military dependent children and frequent moves of families are involved. The importance of peer group relationships to the adolescent is well known. It is possible that frequent changes of peer groups may actually be beneficial to the adolescent and not a factor of depression. The adolescent may gain added experience in relating to various persons. The importance of peer groups probably is not as important a factor as family relationships are to the development of depression.

Creighton Prep's low scores may be explained by the fact that the parents are willing to invest in the adolescent's future. The sacrifice for a private education made by the family may indicate some of the general willingness of the parents to be involved with their adolescent. The factor of religion may also play a role, but is undetermined.

Depression is common among adolescents. The factors important to the adolescent appear to be in his family environment. Delinquency probably is a manifestation of depression in the adolescent. The factors of age, sex, and race were found not to be significant factors in this study.

**SUMMARY**

A historical outline of depression is initially presented for the background of past theories and findings of depression. The dynamics and descriptions of depressive
syndromes are given from a recent classification. The specific areas of adolescence and adolescent depression are further elaborated in this paper.

The research procedures and results are described along with the conclusions drawn from the data. Research was directed mainly toward finding the frequency and factors leading to adolescent depression and not the manifestations.
BIBLIOGRAPHY


14. Kenney, Emmett (Chief of Adolescent Unit, Nebraska Psychiatric Institution), Lectures.


33. Halliday, Roy (Socio Behavioral Research Associate, Nebraska Psychiatric Institute).