

**A COMPARISON OF NURSING AND NON-NURSING STUDENTS RELATIVE  
TO LOCUS OF CONTROL, DEATH ANXIETY, AND DEPRESSION**

---

**ROBERTA L. WIX**

A COMPARISON OF NURSING AND NON-NURSING STUDENTS RELATIVE TO  
LOCUS OF CONTROL, DEATH ANXIETY, AND DEPRESSION

---

An Abstract  
Presented to  
the Graduate Council of  
Austin Peay State University

---

In Partial Fulfillment  
of the Requirements for the Degree  
Master of Arts

---

by  
Roberta L. Wix  
December 1990

## ABSTRACT

Rotter's Locus of Control, Templer's Death Anxiety, and the Beck Depression Inventory were used in a comparison study of 45 nursing students and 41 non-nursing students enrolled in a psychology class at Austin Peay State University, Clarksville, Tennessee. Data were analyzed using the Pearson product-moment correlation technique and the t-test.

The nursing students scored significantly higher on depression than the psychology students. While the nursing students' mean score was higher on both death anxiety and locus of control, the difference did not reach statistical significance. These findings suggest either that a higher degree of depression may be brought on by the increased stress attributed to the nursing student environment, or that a higher degree of depression may be present prior to entering the program.



A COMPARISON OF NURSING AND NON-NURSING STUDENTS RELATIVE  
TO LOCUS OF CONTROL, DEATH ANXIETY, AND DEPRESSION

---

A Thesis  
Presented to  
the Graduate Council of  
Austin Peay State University

---

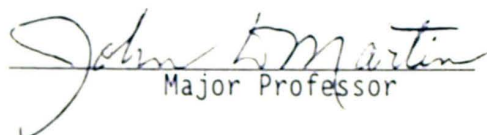
In Partial Fulfillment  
of the Requirements for the Degree  
Master of Arts

---

by  
Roberta L. Wix  
December 1990

To the Graduate Council:

I am submitting herewith a Thesis written by Roberta L. Wix entitled "A Comparison of Nursing and Non-Nursing Students Relative to Locus of Control, Death Anxiety, and Depression in a Nursing Student Population." I recommend that it be accepted in partial fulfillment of the requirement for the degree of Master of Arts, with a major in Psychology.

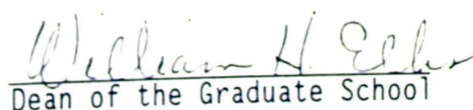
  
Major Professor

We have read this thesis  
and recommend its acceptance:

  
Second Committee Member

  
Third Committee Member

Accepted for the  
Graduate Council:

  
Dean of the Graduate School

## ACKNOWLEDGMENTS

The writer wishes to express her appreciation to Dr. John Martin, who gave this writer the inspiration for this research and whose encouragement greatly aided her. The author also wishes to express gratitude to Dr. Garland Blair for his expertise in computer analysis of data.

Special appreciation is extended to Dr. Robert Nevels, Dr. Charles Grah, and my family, all of whom supported the author in their own way. Last but not least, special thanks to Rick Williams, who assisted me every step of the way in the completion of this thesis.

## TABLE OF CONTENTS

	PAGE
LIST OF TABLES. . . . .	vii
CHAPTER	
1. INTRODUCTION. . . . .	1
2. METHOD. . . . .	7
Subjects . . . . .	7
Description of Instrument . . . . .	7
Procedure . . . . .	9
3. RESULTS . . . . .	10
4. DISCUSSION. . . . .	13
REFERENCES . . . . .	16
APPENDIX A . . . . .	21
APPENDIX B . . . . .	23
APPENDIX C . . . . .	28

## LIST OF TABLES

TABLE	PAGE
1. Correlations of All Students on Locus of Control, Death Anxiety, and Depression. . . . .	11
2. Means, Standard Deviation, and t-scores of Nursing and Non-Nursing Students on All Variables. . . . .	12



## CHAPTER 1

### Introduction

It has been suggested that patients and professionals need assistance in facing death without fear (Kubler-Ross, 1969). Patton and Freitag's (1977) findings suggest that many medical professionals may have even greater problems in dealing with death anxiety (DA) than do their patients. In addition Hunt, Lester and Ashton's (1983) findings suggest that there may be occupational differences concerning death anxiety. It appears that the more likely one is to encounter death (his/hers or others) on the job the higher the death anxiety. Because the medical student's training commonly requires that he or she work with patients who are gravely ill, it is essential that the student be able to cope with his or her own anxieties about death (Vargo and Black 1984). Among other things, medical students are a population documented to be at risk in the future for psychiatric and medical morbidity and mortality (Beck and Geer, 1975; Coombs 1978). Also, every year in medical school, a small number of students, indistinguishable from their colleagues by any of the traditional academic criteria, fail to perform at a level consistent with their potential ( Grover and Smith, 1981).

Although locus of control (LOC) has been the subject of numerous investigations in the past twenty years (Rotter, 1966), according to Vargo and Black (1964), only four studies have been reported pertaining to the attribution of control within a medical student population

(Gardner, 1982; Grover and Smith, 1981; Grover and Tessier, 1978; Kilpatrick, Dublin and Marcotte, 1974). For the most part, these four studies have investigated the relationships among LOC, academic achievement, and stress-tolerance. Findings have consistently indicated that the student who has a more general "internal" orientation is more personally and academically effective than the student who has a more "external" orientation. In addition, these studies have revealed the importance of investigating LOC and its correlates in medical students, both as a means of better understanding the concept of LOC itself and as a way of gaining more specific knowledge with regard to the psychological functioning of medical students. Such research may provide a possible avenue of determining those characteristics most conducive to satisfactory medical school performance.

Vargo and Black (1984) explored the relationship between attribution of control and the fear of death in a medical student population. Their results supported the hypothesis that a more internal locus of control is associated with a decreased level of death anxiety. In addition, they found no significant differences attributable to age and/or sex. They suggest that the internally oriented student, who has an increased sense of control, may perceive death as more predictable, and therefore, may feel more secure in his or her confrontations with dying and death. On the other hand, the externally oriented student, because of a decreased sense of personal control, perceives death as a highly unpredictable event, and, as a result, feels quite helpless in relation

to it. Therefore, the student with an internal LOC appears better equipped to confront illness, dying, and death than the student with a more external orientation. However, Sadowski, Davis, Loftus, and Vergari (1979) provide another explanation: That death anxiety may reflect more a concern about an inability to determine one's own behavior than a belief about the consequences of the behavior.

Grover and Smith (1981), using the Rotter instrument at the beginning and at the end of the first academic year, found the greatest shifts in either LOC dimension to be correlated with the high achieving students, whereas some low achievers showed very stable LOC. They concluded that flexibility in students attitudes may outweigh the importance of LOC and that some control apparently needs to be relinquished during the first year of medical school. In addition, Rotter (1966) has suggested that although internality is typically constructive, when carried to an extreme it can impair functioning. Schwartz and Snow (1974) have stated that for a plurality of reasons many students fail because they are desperately trying too hard. Several investigators have investigated the relationship between LOC and DA, but the results have been somewhat contradictory and limited (Hyams, Domino, and Spencer, 1982). Kuperman and Golden (1978) and Patton and Freitag (1977) have suggested that subjects with high concerns about death also tend to be more external than internal in their orientation. Tolor and Reznikoff (1967), using 79 male subjects, found a slight correlation between LOC and DA. However, Berman and Hays (1973) tested 300 college-



age subjects, but found no relationship between LOC and two death anxiety scales. Yet, quite clearly, the evidence suggests that individuals who possess an internal LOC are more effective in dealing with both the physical, outer environment as well as the inner, affective environment (Burnes, Brown and Keating, 1971; Powell, Love and Vega, 1976). Hayslip, Stewart and Bussey (1986) have noted that internality may serve to aid an individual in coming to terms with his own death. In another study, Hayslip and Walling (1985), using Templer's Death Anxiety Scale, have suggested that hospice volunteers may continue to fear the death of others irrespective of training.

The degree of control or choices one feels one has over a situation has been associated with depression (Rubio and Lubin, 1986; Neff and Husain, 1982). Although most researchers who have examined the relationship between LOC and depression maintain that internals are able to cope more effectively with depression than externals (Abromowitz, 1969; Miller and Seligman, 1973), several investigators have begun to question that conclusion. Phares (1976) argues that both extreme internals and extreme externals may be especially vulnerable to the effects of stress, and in stressful situations, extreme internals may be overcome by a sense of personal responsibility for situations which cause anxious and depressive reactions. Antonovsky (1979) observed that persons with extreme internal orientation claim to have almost complete control of all events in their lives. He suggests that extreme internals possess an "hysterical rigidity" that produces an incapacity to live with un-

controllable events and which thus prevents them from developing effective coping mechanisms. Krause and Stryker (1984) found that persons with extreme internal and external LOC beliefs were especially vulnerable to deleterious effects of life stress, such as depression. Ventimiglia (1986) demonstrated a significant positive association between external multidimensional (powerful others and chance) locus of control and severity of depression in dysthymics and a significant negative association between internal locus of control and depression for major depressives.

Most nursing students deal with death and suffering at a relatively early age with little opportunity to examine their own feelings about death anxiety. According to Templer (1971) death anxiety is usually related more to degree of personality adjustment and subjective state of well being than to reality based factors. He states that high DA can often be understood in terms of a breakdown of defense mechanisms. He concluded that death anxiety may be viewed as primarily a concomitant of depression. Templer, Ruff, and Simpson (1974) support this conclusion. Their findings show that a decrease in DA is accompanied by a decrease in depression and that death anxiety can be manipulated. Templer, Ruff, and Franks (1971) report no relationship between age and DA scores in a project involving over 2500 subjects ranging from 19 to 85 years of age from several diverse populations. Morgan (1971), using cardiac surgery patients, demonstrated that over-anxious patients were the most prone to depression after the operation.



Based on the research cited, the present study was undertaken to determine the differences, if any, between sample of nursing and non-nursing students relative to their scores on LOC, DA, and depression. It was hypothesized that nursing students would be more externally controlled than non-nursing students. As a corollary to this hypothesis, it was hypothesized that nursing students would exhibit higher death anxiety and depression than non-nursing students.

## CHAPTER 2

### Methodology

#### Subjects

The subjects consisted of 45 undergraduate nursing students (40 Caucasian and 5 Negroid) enrolled in their junior and senior year and 41 undergraduate students (35 Caucasian and 6 Negroid) enrolled in a psychology class at Austin Peay State University. The nursing group consisted of 41 females and 4 males while 34 females and 8 males comprised the non-nursing group. The mean age of the nursing students was 26.29 while the mean age of the non-nursing students was 27.46. All participants volunteered.

#### Description of the Instruments

Templer's Death Anxiety Scale (DAS) (1970) is one of the most widely used instruments for measuring death anxiety. According to Kurlycheck, "more normative data are available on Templer's Death Anxiety Scale than any other measure" (cited in Young and Daniel, 1981, p.224). A test retest reliability of .83 was determined after a three week interval by Templer. Templer also conducted a validity study using patients at Western State Hospital, Hopkinsville, Kentucky, and found that patients who expressed high death anxiety had significantly higher scores on the DAS than a control group (Templer, 1970).

The DAS consists of 15 true or false questions. One point is given for each death anxiety statement. Scores range from zero (low death anxiety) to 15 (high death anxiety). A copy of the DAS is included in

The Rotter's Internal-External Locus of Control (RLOC) (1966) is the most widely used LOC scale (Robinson and Shaver, 1973). This instrument has demonstrated a moderately high reliability and validity. Using the Kuder-Richardson formula on a sample of 400 college students, an internal consistency coefficient of .70 was obtained. A one-month interval test-retest reliability for 60 college students combined was .72. In comparing Edward's Social Desirability Scale and Rotter's Locus of Control Scale, Cone (1971) found correlation coefficients ranging between -.29 and .70 ( $p \leq .025$ ) for five separate test samples.

The RLOC Scale is comprised of 23 questions. One point is given for each external statement selected. Scores range from zero (most internal) to 23 (most external). A copy of the RLOC instrument is included in Appendix B.

The Beck Depression Inventory (BDI) (1978) has been viewed as one of the better self-report measures of general depression and has become a widely used measure in clinical and college research (Reynold and Gould, 1981; Hammen, 1980). Studies of the internal consistency and stability of the instrument indicate a high degree of reliability. Beck, Ward, Mendelson, Mock, and Erbaugh (1961) reported split-half reliability of .93 based on a sample of 97 psychiatric patients. Comparison between the scores on the inventory and the clinical judgements by diagnosticians indicated a moderately high degree of validity (.65).

The BDI consists of 21 items. Each item is scored from 0 to 3 points. The higher the score, the greater the depression. A copy of the BDI is included in Appendix C.

### Procedure

The three scales with a cover letter and a release form were presented to students at various sessions at Austin Peay State University and collected by a research assistant.

The researcher hand-scored all tests. All information was organized so that the following variables were available for each subject: sex, race, age, grade, RLOC score, DA score, and BDI score.

## CHAPTER 3

### Results

The Pearson product-moment correlation technique was used to compute the coefficients from the scores derived from the instruments for all students. No significant relationship was found for locus of control and death anxiety, locus of control and depression, and death anxiety and depression. All correlations are shown in Table 1.

Using the t-test to compare the scores of nursing and non-nursing students, the nursing students scored significantly higher on depression ( $t=2.080$ ,  $p \leq .05$ ). While the nursing students death anxiety means and external locus of control means were slightly higher than the non-nursing students, the difference did not reach statistical significance. Table 2 shows the t-ratios, means, and standard deviations for nursing and non-nursing students.



Table 1

Correlations of All Students on Locus of Control, Death Anxiety, and Depression.

Variable	RLOC	DAS	BDI
RLOC	—	.153	.183
DAS	.153	—	.103
BDI	.183	.103	—

No significant correlations found ( $p \leq .05$ )  $n=86$ .

Table 2

Means, Standard Deviation, and t ratios of Nursing and Non-Nursing Students on All Variables.

Templer's Death Anxiety Scale

	n	Mean	SD
Nursing Students	45	7.11	3.31
Non-Nursing Students	41	6.88	3.47

$t = .316$

$p > .05$

Beck Depression Inventory

	n	Mean	SD
Nursing Students	45	7.9	5.70
Non-Nursing Students	41	5.56	4.76

$t = 2.080$

$p < .05$

Rotter's Locus of Control

	n	Mean	SD
Nursing Students	45	9.51	3.47
Non-Nursing Students	41	8.71	4.11

$t = .971$

## CHAPTER 4

### Discussion

Although the findings do not support the possible relationship between LOC and DA, LOC and depression, and DA and depression in a nursing student population, the results do indicate that nursing students are significantly more depressed than non-nursing students. Inasmuch as the findings of Raybin and Detre (1969) and Cleghon and Streiner (1979) suggest that nursing students exhibited greater depressive symptoms than non-nursing students, the research findings presented here support their results. According to Haack, Hardford, and Parker (1988), and Raybin and Detre (1969), depressive symptomatology may be due to the effects of reactions to stressful experiences of giving care and to life changes. Most nursing students are asked to respond to greater stresses with less experience than non-nursing students, and, therefore, they appear to be more anxious and depressed. Raybin and Detre (1969), and Fehring, Brennan, and Keller (1987) have found a weak positive relationship between life changes and depression.

Another possible explanation for the higher depression scores among nursing students is their level of spirituality. Fehring, Brennan, and Keller (1987) found a weak positive correlation between life changes and depression and a strong inverse relationship between existential well-being (a component of spiritual well-being) and depression.

Moreover, it is entirely possible that nursing students are more depressed than non-nursing students before entering the nursing program. The aforementioned explanations are not intended to be exhaustive, and, to be sure, no causal relationship has been established. Perhaps a different research design and study could elucidate the relationship. The test-retest model could be used in one possible study. Using the Beck Depression Inventory, students could be given the test upon acceptance to the nursing program and again upon graduation. Since different depression scales measure different types of depression, another instrument could be used to see if nursing students score significantly higher than non-nursing students on a particular type of depression scale. These studies could be broadened to include other health-care professionals.

Although death anxiety and locus of control means were slightly higher for nursing students than non-nursing students, the differences did not reach statistical significance. It appears plausible to assume that as nursing students enter the hospital environment and encounter more life and death situations, thus generating greater stress and anxiety, their scores on death anxiety would rise to a level significantly higher than those of non-nursing students. Follow-up studies could conceivably clarify the conundrum. This researcher believes that more research should be done to help assist counselors and other professionals in advising medically oriented students at an early stage in their training to help them make intelligent career selection.



## REFERENCES

- Abramowitz, S.I. (1969). Locus of Control, self-reporte depression among college students. Psychological Reports, 25, 149-150.
- Antonovsky, S. Health, Stress and Coping. Washington, D.C., Jossey-Bass Publishers, 1979.
- Beck, A.T., Ward, C.H., Mendelson, M., Mock, J., and Erbaugh, J. (1961). An inventory for measuring depression. Archives General Psychiatry, 4, 561-571.
- Becker, H.S., and Geer, B. (1975). The fate of idealism in medical school. Medical Behavioral Science, Ed. by T. Millian. Philadelphia, W.B. Saunders Company, 44-51.
- Berman, A.L. (1973). Smoking behavior: How is it related to locus of control, death anxiety and belief in afterlife? Omega, 4, 149-155.
- Berman, A.L. and Hays, J. (1973). Relation between death anxiety, belief in afterlife, and locus of control. Journal of Consulting and Clinical Psychology, 41, 318.
- Burnes, K, Brown, W.A., and Keating, G.W. (1971). Dimension of control: Correlations between MMPI and I-E scores. Journal of Consulting and Clinical Psychology, 36 (2), 301.
- Cleghorn, J.M., and Streiner, B.J. (1979). Prediction of symptoms and illness behavior from measures of life change and verbalized depressive themes. Journal of Human Stress, 5 (4).
- Cone, J.D. (1971). Locus of control and social desirability. Journal of Consulting and clinical Psychology, 36 (3), 449.
- Coombs, R.H., Mastering Medicine: Professional Socialization in Medical School. New York, The Free Press, 1978, 111.
- Fehring, R.J., Brennan, P.F., and Keller, M.L. (1987). Psychological and spiritual well-being in college students. Research in Nursing Health, 10, 391-398.
- Gardner, R. (1982). Attribution of control, essays, and early medical school experience. Psychosomatic Medicine, 44, 93-108.
- Grover, P.L. and Smith, D. U. (1981). Academic anxiety, locus of control, and achievement in medical school. Journal of Medical Education, 56, 727-741.



- Grover, P.L. and Tessier, K.E. (1978). Diagnosis and treatment of academic frustration syndrome. Journal of Medical Education, 53, 734-740.
- Haack, M.R., Harford, T.C., and Parker, D.A. (1988). Alcohol use and depression. Alcoholism: Clinical and Experimental Research, 12 (3), 365-367.
- Hammen, C.L. (1980). Depression in college students: beyond the BDI. Journal of Consulting and Clinical Psychology, 48 (1), 126-128.
- Hayslip, B. and Stewart-Bussey, D. (1986). Locus of control-levels of death anxiety relationships. Omega, 17, 41-50.
- Hayslip, B. and Walling, M.L. (1985). Impact of hospice volunteer training on death anxiety and locus of control. Omega, 16, 243-254.
- Hunt, D. M.; Lester, D.; and Ashton, (1983). Fear of death, locus of control and occupation. Psychological Reports, 53, 1022.
- Hyams, B.; Domino, G.; and Spencer, R. (1982). Differential aspects of locus of control and attitudes toward death. Social Behavior and personality, 10, 177-182.
- Kilpatrick, D.G., W. R., and Marcotte, D.G. (1974). Personality, Stress of the medical education process, and changes in affective mood state. Psychological Reports, 34, 1215-1223.
- Krause, N., and Stryker, S. (1984). Stress and well-being: The buffering role of locus of beliefs. Social Science and Medicine, 18, 783-790.
- Krause, N. (1986). Stress and coping. Reconceptualizing the role of locus of control beliefs. Journal of Gerontology, 41, 617-622.
- Kubler-Ross, E. On Death and Dying. New York: Macmillan, 1969.
- Kuperman, S.K. and Golden, C.J. (1978). Personality correlates of attitude toward death. Journal of Clinical Psychology, 34, 661-663.
- Miller, R., and Seligman, M.E. (1973). Depression and the perception of reinforcement. Journal of Abnormal Psychology, 82 (1), 62-73.
- Morgan, D.H. (1971). Neuro-psychiatric problems of cardiac surgery. Journal of Psychosomatic Research, 15 (1), 41-46.

- Neff, J.A., and Husaini, B.A. (1982). Life events, drinking patterns and depressive symptomatology: The stress-buffering role of alcohol consumption. Journal of Studies on Alcohol, 43 (3), 387-390.
- Patton, J.F., and Freitag, C.B. (1977). Correlational study of death anxiety, general anxiety and locus of control, Psychological Reports, 40, 51-54.
- Phares, E.J. Locus of Control in Personality. Morristown, New Jersey: General Learning Press, 1976.
- Powell, A., Love, L.E., and Vega, M. (1976). Further note on rule utilization in solutions of abstract picture-analogy problems. Psychological Reports, 39, 387-390.
- Raybin, J.B., and Detre, T.P. (1969). Sleep disorder and symptomatology among medical and nursing students. Comprehensive Psychiatry, 10, (6).
- Reynolds, W.M., and Gould, J.W. (1981). A psychometric investigation of the standard and short form Beck Depression Inventory. Journal of Consulting and Clinical Psychology, 49 (2), 306-307.
- Robinson, J.P., and Shaver, P.R. (1973) Measures of social psychological attitudes (revised edition). Ann Arbor, Michigan: Institute for Social Research, University of Michigan. (Survey Research Center ISR Code No. 2928).
- Rotter, J.B. (1966). Generalized expectancies for internal versus external control of reinforcement. Psychological Monographs, 80, 1-28.
- Rubio, C. T., and Lubin, B. (1986). College student mental health: A person-environment interactional analysis. Journal of Clinical Psychology, 42, 205-212.
- Sadowski, C.N., Davis, S.F., and Loftus-Vergari, M.C. (1979). Locus of control and death anxiety: A re-examination. Omega, 10, 203-210.
- Schwartz, B.J., and Snow, L.H. (1974). On getting kicked out of medical school. American Journal of Psychotherapy, 28, 574-583.
- Tolar, A., and Reznikoff (1967). Relation between insight, repression-sensitization, internal-external control, and death anxiety. Journal of Abnormal Psychology, 72, 427-430.

- Templer, D.I. (1970). The construction and validation of a death anxiety scale. The Journal of General Psychology, 82, 165-177.
- Templer, D.I. (1971). Death anxiety as related to depression and health of retired persons. Journal of Gerontology, 26, 521-523.
- Templer, D.I., Ruff, C., and Franks, C. (1971). Death Anxiety: Age, sex, and parental resemblance in diverse populations. Developmental Psychology, 4, 108.
- Templer, D.I., Ruff, C., and Simpson K. (1974). Alleviation of high death anxiety with symptomatic treatment of depression. Psychological Reports, 35, 216.
- Vargo, M.E. and Black, F.W. (1984). Attribution of control and the fear of death among first-year medical students. Journal of Clinical Psychology, 40, 1525-1528.
- Ventimiglia, J.A. (1987). Relationships of multidimensional locus of control, depression and hopelessness in depressive disorders. Dissertation Abstracts International, 47 (7-A), 2743.
- Young, M. and Daniels S. (1981). Religious correlates of death anxiety among high school students in the rural south. Death Education, 5, 223-233.

## APPENDIX A



## APPENDIX A

### Templer's Death Anxiety Scale (DAS)

please circle the following statements True or False as they apply to you:

- |   |      |       |
|---|------|-------|
| 1. I am very much afraid to die.                                | True | False |
| 2. The thought of death seldom enters my mind.                  | True | False |
| 3. It doesn't make me nervous when people talk about death.     | True | False |
| 4. I dread to think about having to have an operation.          | True | False |
| 5. I am not at all afraid to die.                               | True | False |
| 6. I am not particularly afraid of getting Cancer.              | True | False |
| 7. The thought of death never bothers me.                       | True | False |
| 8. I am often distressed by the way time flies so very rapidly. | True | False |
| 9. I fear dying a painful death.                                | True | False |
| 10. The subject of life after death troubles me greatly.        | True | False |
| 11. I am really scared of having a heart attack.                | True | False |
| 12. I often think about how short life really is.               | True | False |
| 13. I shudder when I hear people talking about World War III.   | True | False |
| 14. The sight of a dead body is horrifying to me.               | True | False |
| 15. I feel that the future holds nothing for me to fear.        | True | False |

Additional information:

Sex: \_\_\_\_\_

Age: \_\_\_\_\_



## APPENDIX B

## APPENDIX B

### Rotter's Locus of Control

#### Instructions

Each item is designated by a number. Put a check in front of the statement under that number you most agree with. On some items you may not agree with either statement and on others you may agree with both. In either case, choose the statement you most agree with. Please be sure to choose only one statement for each item and to answer all (29) items.

1.    ☐      Children get into trouble because their parents  
         ☐      punish them too much.  
         ☐      The trouble with most children nowadays is that  
         ☐      their parents are too easy with them.
2.    ☐      Many of the unhappy things in people's lives  
         ☐      are partly due to bad luck.  
         ☐      People's misfortunes result from the mistakes they make.
3.    ☐      One of the major reasons why we have wars is  
         ☐      because people don't take enough interest in politics.  
         ☐      There will always be wars, no matter how hard  
         ☐      people try to prevent them.
4.    ☐      In the long run people get the respect they  
         ☐      deserve in this world.  
         ☐      Unfortunately, an individual's worth often  
         ☐      passes unrecognized no matter how hard he tries.
5.    ☐      The idea that teachers are unfair to students  
         ☐      is nonsense.  
         ☐      Most students don't realize the extent to which  
         ☐      their grades are influenced by accidental happenings.
6.    ☐      Without the right breaks one cannot be an effective leader.  
         ☐      Capable people who fail to become leaders have  
         ☐      not taken advantage of their opportunities.
7.    ☐      No matter how hard you try some people just don't like you.  
         ☐      People who can't get others to like them don't understand  
         ☐      how to get along with others.

8. \_\_\_\_\_ Heredity plays the major role in determining one's personality.  
\_\_\_\_\_ It is one's experiences in life which determine what one is like.
9. \_\_\_\_\_ I have often found that what is going to happen will happen.  
\_\_\_\_\_ Trusting to fate has never turned out as well for me as making a decision to take a definite course for action.
10. \_\_\_\_\_ In the case of the well prepared student there is rarely if ever such a thing as an unfair test.  
\_\_\_\_\_ Many times exam questions tend to be so unrelated to course work that studying is really useless.
11. \_\_\_\_\_ Becoming a success is a matter of hard work, luck has little or nothing to do with it.  
\_\_\_\_\_ Getting a good job depends mainly of being in the right place at the right time.
12. \_\_\_\_\_ The average citizen can have an influence in government decisions.  
\_\_\_\_\_ This world is run by the few people in power, and there is not much the little guy can do about it.
13. \_\_\_\_\_ When I make plans, I am almost certain that I can make them work.  
\_\_\_\_\_ It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.
14. \_\_\_\_\_ There are certain people who are just no good.  
\_\_\_\_\_ There is some good in everybody.
15. \_\_\_\_\_ In my case getting what I want has little or nothing to do with luck.  
\_\_\_\_\_ May times we might just as well decide what to do by flipping a coin.
16. \_\_\_\_\_ Who gets to be the boss often depends on who was lucky enough to be in the right place first.  
\_\_\_\_\_ Getting people to do the right thing depends upon ability: luck has little or nothing to do with it.

17. \_\_\_\_\_ As far as world affairs are concerned, most of  
\_\_\_\_\_ us are the victims of forces we can neither  
\_\_\_\_\_ understand nor control.  
\_\_\_\_\_ By taking an active part in political and  
\_\_\_\_\_ social affairs the people can control world  
\_\_\_\_\_ events.
18. \_\_\_\_\_ Most people don't realize the extent to which  
\_\_\_\_\_ their lives are controlled by accidental happenings.  
\_\_\_\_\_ There really is no such thing as "luck".
19. \_\_\_\_\_ One should always be willing to admit mistakes.  
\_\_\_\_\_ It is usually best to cover up one's mistakes.
20. \_\_\_\_\_ It is hard to know whether or not a person really  
\_\_\_\_\_ likes you.  
\_\_\_\_\_ How many friends you have depends on how nice a  
\_\_\_\_\_ person you are.
21. \_\_\_\_\_ In the long run the bad things that happen to  
\_\_\_\_\_ us are balanced by the good ones.  
\_\_\_\_\_ Most misfortunes are the result of lack of  
\_\_\_\_\_ ability, ignorance, laziness, or all three.
22. \_\_\_\_\_ With enough effort we can wipe out political  
\_\_\_\_\_ corruption.  
\_\_\_\_\_ It is difficult for people to have much control  
\_\_\_\_\_ over the things politicians do in office.
23. \_\_\_\_\_ Sometimes I can't understand how teachers arrive  
\_\_\_\_\_ at the grades they give.  
\_\_\_\_\_ There is a direct connection between how hard I  
\_\_\_\_\_ study and the grades I get.
24. \_\_\_\_\_ A good leader expects people to decide for  
\_\_\_\_\_ themselves what they should do.  
\_\_\_\_\_ A good leader makes it clear to everybody what  
\_\_\_\_\_ their jobs are.
25. \_\_\_\_\_ Many times I feel that I have little influence  
\_\_\_\_\_ over the things that happen to me.  
\_\_\_\_\_ It is impossible for me to believe that chance  
\_\_\_\_\_ or luck plays an important role in my life.
26. \_\_\_\_\_ People are lonely because they don't try to be  
\_\_\_\_\_ friendly.  
\_\_\_\_\_ There is not much use in trying too hard to  
\_\_\_\_\_ please people, if they like you, they like you.



27. \_\_\_\_\_ There is too much emphasis on athletics in high school.  
\_\_\_\_\_ Team sports are an excellent way to build character.
28. \_\_\_\_\_ What happens to me is my own doing.  
\_\_\_\_\_ Sometimes I feel that I don't have enough control over the direction my life is taking.
29. \_\_\_\_\_ Most of the time I can't understand why politicians behave the way they do.  
\_\_\_\_\_ In the long run, the people are responsible for bad government on a national as well as on a local level.

## APPENDIX C

## APPENDIX C

Beck Depression Inventory  
(BDI)

This questionnaire consists of 21 groups of statements. After reading each group of statements carefully, circle the number (0, 1, 2 or 3) next to the one statement in each group which **best** describes the way you have been feeling the **past week, including today**. If several statements within a group seem to apply equally well, circle each one. Be sure to read all the statements in each group before making your choice.

1.    0    I do not feel sad.  
       1    I feel sad.  
       2    I am sad all the time and I can't snap out of it.  
       3    I am so sad or unhappy that I can't stand it.
  
2.    0    I am not particularly discouraged about the future.  
       1    I feel discouraged about the future.  
       2    I feel I have nothing to look forward to.  
       3    I feel that the future is hopeless and that things cannot improve.
  
3.    0    I do not feel like a failure.  
       1    I feel I have failed more than the average person.  
       2    As I look back on my life, all I can see is a lot of failures.  
       3    I feel I am a complete failure as a person.
  
4.    0    I get as much satisfaction out of things as I used to.  
       1    I don't enjoy things the way I used to.  
       2    I don't get real satisfaction out of anything anymore.  
       3    I am dissatisfied or bored with everything.
  
5.    0    I don't feel particularly guilty.  
       1    I feel guilty a good part of the time.  
       2    I feel quite guilty most of the time.  
       3    I feel guilty all of the time.
  
6.    0    I don't feel I am being punished.  
       1    I feel I may be punished.  
       2    I expect to be punished.  
       3    I feel I am being punished.

7. 0 I don't feel disappointed in myself.  
1 I am disappointed in myself.  
2 I am disgusted with myself.  
3 I hate myself.
8. 0 I don't feel I am any worse than anybody else.  
1 I am critical of myself for my weaknesses or mistakes.  
2 I blame myself all the time for my faults.  
3 I blame myself for everything bad that happens.
9. 0 I don't have any thoughts of killing myself.  
1 I have thoughts of killing myself, but I would not carry them out.  
2 I would like to kill myself.  
3 I would kill myself if I had the chance.
10. 0 I don't cry any more than usual.  
1 I cry now more than I used to.  
2 I cry all the time now.  
3 I used to be able to cry, but now I can't cry even though I want to.
11. 0 I am no more irritated now than I ever am.  
1 I get annoyed or irritated more easily than I used to.  
2 I feel irritated all the time now.  
3 I don't get irritated at all by the things that used to irritate me.
12. 0 I have not lost interest in other people.  
1 I am less interested in other people than I used to be.  
2 I have lost most of my interest in other people.  
3 I have lost all of my interest in other people.
13. 0 I make decisions about as well as I ever could.  
1 I put off making decisions more than I used to.  
2 I have greater difficulty in making decisions than before.  
3 I can't make decisions at all anymore.
14. 0 I don't feel I look any worse than I used to.  
1 I am worried that I am looking old or unattractive.  
2 I feel that there are permanent changes in my appearance that make me look unattractive.  
3 I believe that I look ugly.



15. 0 I can work about as well as before.  
 1 It takes an extra effort to get started at doing something.  
 2 I have to push myself very hard to do anything.  
 3 I can't do any work at all.
16. 0 I can sleep as well as usual.  
 1 I don't sleep as well as I used to.  
 2 I wake up 1-2 hours earlier than usual and find it hard to get back to sleep.  
 3 I wake up several hours earlier than I used to and cannot get back to sleep.
17. 0 I don't get more tired than usual.  
 1 I get tired more easily than I used to.  
 2 I get tired from doing almost anything.  
 3 I am too tired to do anything.
18. 0 My appetite is no worse than usual.  
 1 My appetite is not as good as it used to be.  
 2 My appetite is much worse now.  
 3 I have no appetite at all anymore.
19. 0 I haven't lost much weight, if any, lately.  
 1 I have lost more than 5 pounds.  
 2 I have lost more than 10 pounds.  
 3 I have lost more than 15 pounds.
- I am purposefully trying to lose weight by eating less.  
 Yes \_\_\_\_\_ No \_\_\_\_\_
20. 0 I am no more worried about my health than usual.  
 1 I am worried about physical problems such as aches and pains; or upset stomach; or constipation.  
 2 I am very worried about physical problems and it's hard to think of much else.  
 3 I am so worried about my physical problems that I cannot think about anything else.
21. 0 I have not noticed any recent change in my interest in sex.  
 1 I am less interested in sex than I used to be.  
 2 I am much less interested in sex now.  
 3 I have lost interest in sex completely.