A Concurrent Validational Study
of the NCHS
General Well-Being Schedule

A comparative analysis of the concurrent validity of several self-report schedules in predicting interviewer's assessment of depressed mood.

NATIONAL CENTER FOR HEALTH STATISTICS

DIVISION OF HEALTH EXAMINATION STATISTICS

FOREWORD

The National Health Survey Act of 1956 provided for the establishment and continuation of National Health Surveys to obtain information about the health status of the population in the United States. Subsequent legislative authority to collect and make available health statistics including data on the determinants of health is contained in Public Law 93-353, Section 306 (par. (b); item (1)). The responsibility for the development and conduct of that program is placed with the National Center for Health Statistics, a research-oriented statistical organization within the Health Resources Administration of the Public Health Service. The Health Examination Survey is one of several different programs employed by the National Center for Health Statistics (NCHS) to accomplish the objectives of the National Health Survey. It is used to collect data by drawing samples of the civilian noninstitutionalized population of the United States and undertakes to characterize the population under study by means of medical, dental, psychological, and nutritional examinations and various tests and measurements.

In addition to the data collected by the examining, measuring, and testing procedures, a wide range of other data are collected concerning each of the sample persons examined. Therefore, it is possible to study a variety of potential relationships among the examination findings.

Psychological components are included in Health Examination Surveys to provide a more complete assessment of the health and well-being of the U.S. population. They are embedded in an interdisciplinary approach in the study of mental health, psychological relationships with medical and nutritional conditions, growth, development, aging, and other aspects of health.

Examination conditions and competing requirements for examination time dictate that each examination component must be specifically designed to fit within these constraints. A long-range effort is underway to develop specific psychological examination procedures within an overall plan of psychological assessments that can be employed in the Health Examination Surveys. The General Well-Being (GWB) schedule was developed in the NCHS and, after pretesting on 373 adults, was administered to over 6,900 adults as part of the national study of the Health and Nutrition Examination Survey, which had begun in April 1971 and was completed in October 1975.

The GWB schedule is a self-report instrument designed to assess selected aspects of self-representations of subjective well-being and distress. Questions and response options were formulated to provide indications of the presence, severity, or frequency of some symptoms that are generally considered important in clinical assessments of subjective well-being and distress. A report is being prepared on the rationale and some properties of the GWB schedule.

This report presents some findings obtained from a research investigation conducted independently of the NCHS in terms of funding and of direct participation of its personnel.

The major import of the findings from the analyses contained in this report are as follows:

> The GWB was slightly better than the other assessments used in this study in terms of concurrent validity in predicting interviewers' ratings of depression among 195 college students.

> The GWB served as well in assessing depressive mood and anxiety states as did the other

instruments which had been specifically and rigorously designed to measure these psychological conditions.

The extensive comparative analyses of the GWB depression and tension-anxiety subscales with other scales included in this study indicated that these subscales seem to measure the relevant properties of the psychological states or conditions for which they were designed, thus supporting the content meaning of these subscales.

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CONTENTS

TEXT FIGURE

LIST OF TEXT TABLES

SYMBOLS

Data not available--	- - -
Category not applicable-----------------------------	. . .
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Quantity more than 0 but less than 0.05------	0.0
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A CONCURRENT VALIDATIONAL STUDY OF THE NCHS GENERAL WELL-BEING SCHEDULE

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INTRODUCTION

The General Well-Being (GWB) schedule was an initial effort directed toward the use of a highly structured instrument for assessing self-representations of subjective well-being and distress. This instrument was developed in 1970 for the National Center for Health Statistics by Dr. Harold Dupuy,[1] Psychology Adviser, Division of Health Examination Statistics. It was used as part of a national health examination of 6,931 adults aged 25-74 years conducted from April 1971 through October 1975.

Since then, the GWB schedule has been and is being used in several fairly large-scale studies. However, its most important clinical use has been made in the Sacramento, California, Division of Mental Health by Dr. Daniel W. Edwards. The GWB was initially administered to patients upon admission to various mental health programs, weekly thereafter until treatment was terminated, and again at a 3-month post-treatment followup. About 600 patients participated in the initial phase.

This report presents some findings and evaluations of the GWB compared with several other self-report scales in terms of their concurrent validity against interviewer ratings of current depression and the intercorrelations among these several scales. These findings were derived from

a study of a sample of 195 college students who participated in a major investigation into ways of assessing depression among college students.

PURPOSE OF THE STUDY

A simple two-process model of effective psychotherapy, interpreted from a problem-solving framework, has been developed along the lines of Andrews' suggestions[2] for treatment by Fazio.[3,4] According to this model, patients must develop a positive rapport with the therapist in such a way that patients are motivated to engage in therapeutic exercises. For example, with respect to phobias, these exercises would involve the gradual exposure to anxiety-producing stimuli. The exercises are judged to be therapeutic if they effect changes in the underlying hypothetical psychopathological condition (e.g., extinguish anxiety) and its symptoms (e.g., avoidance behavior or loss of composure). In order to test the generality of the model from which specific treatments for specific problems are derived, a variety of disorders other than phobias have to be studied. Phobic reactions have been studied extensively, however, because of the ease with which one can operationally measure and quantify the extent of the hypothetical underlying construct (i.e., fear) and its observable operationally defined symptoms (e.g., avoidance behavior). The Behavioral Avoidance Test (BAT), or one of its many variations, has been used extensively in this regard.[5,6] Generally, the construct validities of an experimental

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measure are estimated by the concurrent administration of a variety of other more traditional assessment devices such as self-report scales of fear.[7] However, when attempts are made to investigate other less explicit and more global psychological states such as depression, readily agreed upon operational definitions are not available.

The purpose of the major investigation was to study the interrelationships of a variety of approaches and techniques for assessing psychological depression to determine the best set for use in therapy evaluation studies. In an effort to locate a variety of assessment devices for depression, library searches were undertaken by several assistants. Computerized indexes were searched using a variety of keywords (e.g., suicide), and researchers known to be interested in research on depression were contacted. A literature search as part of a doctoral dissertation by Ray Shipley in this laboratory found very few published therapy experiments on depression in psychology journals. Shipley and Fazio[8] used the Depression scale (D) of the Minnesota Multiphasic Personality Inventory (MMPI) and a rater-judged estimate of voice intensity suggested by Hargreaves and Starkweather[9] in a small-scale study. Although the Zung Self-Rating Depression Scale[10] was used initially, retest scores were judged to be too unstable for our purposes of evaluating changes associated with short-term psychotherapy. The rater-judged estimates of voice intensity were not associated with any changes in pretherapy to posttherapy or in treatment versus control groups. Only the MMPI D scale revealed any statistically significant changes in pretherapy to posttherapy depression scores.

During the summer of 1972, 39 college students recruited from summer-session classes were interviewed in a second attempt to estimate the diagnostic utility of voice indicators of depression. Again, no statistically significant, meaningful diagnostic indexes were found with this sample for these behavioral indicators. For example, vocal response latency to five neutral and to five stressful interview questions for subjects who were considered to be depressed and not depressed on the basis of MMPI D scale T scores.

The next attempt based on two larger samples of college students from the University of Wisconsin-Milwaukee was directed in a different manner. During the fall of 1972, the first sample was given a battery of tests in two sessions approximately 1 week apart. Subsequently, the second sample was examined in the spring of 1973. The battery of tests employed in those assessments contained several well-known measures of depression, anxiety, and other aspects of mental health. One instrument of particular interest to the principal investigator Anthony F. Fazio was the General Well-Being (GWB) schedule developed by Dupuy of the National Center for Health Statistics (NCHS) of the Department of Health, Education, and Welfare.[1] The GWB promised to be of research value because of its psychometric properties (e.g., item response scores of 0-5 as opposed to 0-1), its rational content structure, its brevity, the possibility of accumulating a large data base from which norms could be generated for comparison, and its use as part of a comprehensive Health and Nutrition Examination Survey (HANES) being conducted by NCHS. Since the entire battery of tests and the interview used in this research were administered within 1 week for most subjects, and since no known systematic or planned form of intervention occurred during this brief interim period, the concurrent validities of the GWB and its various subscales were analyzed using the variety of other assessment devices also employed.

Another report concerned with the concurrent validity and content relevance of the GWB to other tests presently exists. Celeste Simpkins and Frank Burke[11] present, among other items, phi coefficients between a sample of mental health patients and a sample of community residents drawn from the same catchment area for all of the GWB items in addition to several other scales. This study replicates part of their work and extends the nomological network of the GWB into new areas.

DESIGN OF THE STUDY

During the fall of 1972, all college students enrolled in introductory psychology classes were

approached with an Interest Inquiry form letter (see the appendix). All participants who reported for testing were informed that the questionnaires had to do with mental health testing, that their responses would be kept strictly confidential, and that an elaborate code had been devised to keep their answers anonymous. They were requested to sign an Assurance of Confidentiality Statement and an Authorization for Release of Academic Records (see the appendix). Later the students were divided into smaller groups and were asked to complete the battery of tests as will be described below. The battery was administered in two parts, each about 1-1½ hours in duration and approximately 1 week apart. Different tests were given first because of the differences in schedule times for many students. The interview always occurred at the end of the second session. Of the more than 170 students initially responding, 127 of them completed all phases of all tests and were identified as group 1.

During the spring of 1973, the identical procedure was followed. Of the more than 100 students who responded, 68 completed all tests and were identified as group 2. Some of the tests administered in the fall were not administered in the spring and vice versa.

SOURCES OF THE MAJOR DATA ELEMENTS

The appendix presents some of the tests used and their appropriate scoring keys for both groups 1 and 2. Tests administered to both groups are as follows:

The Minnesota Multiphasic Personality Inventory (MMPI).

The Psychiatric Symptoms Scale (PSS).

The General Well-Being schedule (GWB).

Personal interview.

The Minnesota Multiphasic Personality Inventory (MMPI)

Devised by Hathaway and McKinley[12] this is a 566-item true-false inventory with 10

clinical scales and 3 validating scales.[13] For each subject, 13 scale scores were tabulated from this particular inventory which was chosen because it is a "standard" in the field. A brief description of the MMPI scales follows.

Number of items	Validity scales
15	(L) Lie—A high score indicates responses that places one in the most acceptable light socially.
64	(F) Validity—a low score indicates rational and relatively pertinent responses.
30	(K) Correction—a high score indicates defensiveness that verges upon deliberate distortion in making a more "normal" appearance.

	Clinical scales
33	(Hs) Hypochondriasis—a high score indicates abnormal concern about bodily functions. (K-corrected)
60	(D) Depression—a high score indicates a symptom complex of depression.
60	(Hy) Hysteria—a high score indicates conversion-type hysteria symptoms such as paralyses. (K-corrected)
50	(Pd) Psychopathic Deviate—a high score indicates absence of deep emotional response, inability to profit from experience, and disregard of social mores. (K-corrected)
60	(Mf) Masculinity-Femininity Interests—a high score indicates a deviation of basic interest pattern in the direction of the opposite sex.
40	(Pa) Paranoia—a high score indicates suspiciousness, oversensitivity and delusions of persecution, with or without expansive egoism.
48	(Pt) Psychasthenia—a high score indicates phobic and compulsive behavior. (K-corrected)

78 (Sc) Schizophrenia—a high score indicates bizarre and unusual thoughts or behavior. (K-corrected)

46 (Ma) Hypomania—a high score indicates overproductivity in thought and action. (K-corrected)

70 (Si) Social Introversion-Extraversion—a high score indicates a tendency to withdraw from social contact with others.

Psychiatric Symptoms Scale (PSS)

This 45-item true-false scale, constructed by Dohrenwend and Crandel,[13] was derived from the Langner Scale used in the Stirling County and Midtown Manhattan studies.[14] Additional items were suggested by psychiatric personnel associated with a research project. This scale was selected for its updated revision of other "standard" tests in the field. For these analyses two subscales were constructed using the criterion that 6 out of 8 judges agreed that the item was relevant *a priori* to either anxiety or depression but not to both. These two subscales contain 10 and 7 items, respectively. The items for each subscale are shown separately in the appendix.

General Well-Being Schedule (GWB)

This schedule contains 33 items—the first 14 items are 6 response option items, the next 4 items are 0-10 rating bars, and the last 15 items are criterion-type behavioral and self-evaluation items.[11-16] Six subscales measure health worry, energy level, satisfying interesting life, depressed-cheerful mood, emotional-behavioral control, and relaxed versus tense-anxious. These ratings can be obtained as well as an overall total scale score. The GWB was included in this investigation to "test" the robustness of its short, direct, and rational approach to assessing self-representations of depression and tension-anxiety compared with the more generalized approaches used in the other assessment instruments. (See the appendix for a copy of the GWB and its case record summary sheet for item response scoring.) The GWB is scored in a positive direction in that a high score reflects a self-representation of well-being.

Personal Interview

A personal interview was conducted with each subject. This half-hour, face-to-face interview took place at the end of the second half of the second testing session, 1 week after the first testing session. Because of the number of subjects and questionnaires involved, many assistants participated in the data collection phases and also conducted the interviews. Demographic data were requested along with statements of satisfaction about progress toward goals and other pertinent information. In all, 39 items were recorded. After the subject had left, the interviewer rated the degree of depression, if any, which was manifested by the subject during the interview. The three items used in these analyses were age, sex, and the interviewer's rating of depression. A copy of the interview schedule for group 2 is shown in the appendix.

For group 1, the following additional questionnaires were administered:

The Zung Self-Rating Depression Scale (SDS).—This is a 20-item scale, with 4 choice response options for each item, specific to psychological depression.[10] For each subject a converted raw score for each of the 20 items was tabulated and later converted to a total depression score with a possible range of 25-100. This questionnaire was chosen because it was easy to administer, short, and contains many items of clinical interest for the assessment of depression (see the appendix).

The College Health Questionnaire (CHQ).—This is an 82-item multiple-choice test with 16 subscales and 2 validating scales.[17] For these analyses 3 subscale scores were tabulated—current depression, 19 items; past depression, 14 items; and anxiety, 6 items (see the appendix). This questionnaire was chosen because of its apparent relevance to college student populations.

For group 2, the following questionnaire was substituted for the SDS and the CHQ:

The Personal Feelings Inventory (PFI).—This questionnaire consists of 2 subscales—anxiety, 21 true-false items; and depression, 45 true-false items. These 66 items were obtained from Zubin

and Fleiss[18] and were factor analyzed from nearly 700 items from the combined Present State Examination of Wing et al. (1967)[19] and the Psychiatric Status Schedule of Spitzer et al. (1970).[20] These subscales were used because they were reported to be able to discriminate anxiety from depression.

Thus, in all, approximately 800 elements of information were obtained from each subject which were reduced to 91 data elements taken from the tests as just described. Because a variety of scales was administered, scale scores rather than individual items (many of which are scored only as true-false) are the main bases for comparison.

DATA PREPARATION PROCEDURES

Each subject was assigned an identification number by drawing without replacement from a set of numbers prepared earlier. A code sheet was kept by the principal investigator in case subjects had to be recalled at a later time. After all testing was completed, the code sheet was destroyed, making it impossible to identify any subject's responses to the questions. All tests were scored at least twice by independent assistants, after which all scores were transferred to coding sheets for keypunching. Each coding sheet was doublechecked for errors, missing entries, etc. All keypunching was verified and off-line lists were again checked for errors. Finally, the data were checked using a computer program for field limits, number of cases, and other specifications. The principal investigator personally supervised and/or checked every one of the 91 data elements for each of the 195 subjects in the data base.

The data were arranged by group and sex of the subject in two-card records. A machine-readable data file, containing a complete case record summary listing of the data set, was prepared. A coding manual containing the data element sources and their scoring, their location in the data set, etc., also was prepared.

All data analyses were computed by use of a UNIVAC 1106 or 1110, as well as programs from the Basic Statistical Package (BSP), which was developed by the Social Science Research Facility of the University of Wisconsin-Milwaukee.

For the purpose of this report, the 91 data elements were reduced to 74. This reduction reflects the use of sex as a control variable and the exclusion of the 9 items of question 24 of the GWB and 7 interview items. The major statistical measure used in this report to show the degree of association or relationship between any two data elements is the product-moment correlation coefficient. The degree of association between any two data elements varies positively with the numerical value of this coefficient.

DEMOGRAPHIC CHARACTERISTICS

General Population From Which the Sample Was Drawn

During the fall and the spring semesters of 1972-73, the student population at the University of Wisconsin-Milwaukee was approximately 23,000, mostly young white adults aged 18-25 years, of which approximately 57 percent were male. The subpopulation of students in introductory psychology classes consisted of approximately 60 percent females.

The Study Sample

The sample of 79 males from both semesters may be characterized by the following data: age in years, $\overline{X}$ = 19.6, SD = 2.4; freshman; holding a part-time job; and not on medications.

The sample of 116 females may be characterized as: age in years, $\overline{X}$ = 18.9; SD = 2.5; freshman; holding a part-time job; and not on medications.

Consistent with the data for the introductory psychology classes, 59.5 percent of the sample was female.

While the sex-age characteristics of the study sample appeared to reasonably approximate the subpopulation, the statistical findings reported herein, however, are not to be taken as characterizing this subpopulation. Furthermore, the purpose of this report is not to make population estimates but rather to make comparative analyses of the relationships among several measures of depression. This report thus limits its scope to these comparative analyses and evaluation of these relationships.

DESCRIPTIVE PSYCHOLOGICAL CHARACTERISTICS OF STUDY SAMPLE

Table 1 contains the summarized data for males, females, and both sexes for each item in the case record summary listing.

General Well-Being Data

Remembering that the GWB is scored in a positive direction, the average scores for both sexes indicated that they were:

1. In good spirits.
2. Only a little bothered by nervousness.
3. Generally in firm control of behavior and feelings.
4. Only a little sad at times but not bothered by it.
5. Under some pressure or stress, but about the usual amount.
6. Fairly happy with their personal life.
7. Virtually not at all worried about losing control of their mind.
8. Anxious enough to be bothered by it.
9. Often sleeping fairly well.
10. Only a little bothered by illness and pain.
11. Interested in life a good bit of the time.
12. Feeling downhearted and blue only a little of the time.
13. Feeling emotionally stable a good bit of the time.
14. Feeling worn out only a little of the time.
15. Generally not concerned about their health.
16. Feeling more relaxed than tense.
17. Feeling more energetic than listless.
18. Feeling more cheerful than depressed.

Although the students reported occasional personal problems, they tended neither to have sought help nor to have been concerned about their problems. Very few reported having had a nervous breakdown or having had feelings tending toward a breakdown. Even fewer had been clinical patients or had seen professionals for psychological problems.

Average scores for the six GWB subscales and for the total scale were generally lower than those for the sample of community residents in Nashville, Tennessee, as reported by Simpkins and Burke.[11]

Personal Interview Data

In general, the subjects were young adults graduated from public schools, satisfied with their living arrangements, and not interested in psychological therapy. They reported being satisfied with their girlfriend/boyfriend arrangements and with the progress they were making toward their goals. The interviewers did not find them to be manifestly depressed. Tables 2 and 3 present a basis for comparing data from the GWB with the unweighted national sample in terms of Dupuy's tentative descriptive attribution of well-being and distress and the joint distribution of GWB scores and interviewer ratings in the study sample. The GWB mean and median scores indicate that the study sample was at a level of marginal positive well-being and slightly above mild problem-indicative distress. The interviewer ratings placed 36.9 percent, or 72 out of 195, of the study sample as showing at least some concern about their problems or being slightly depressed, compared with 40.5 percent, or 79 out of 195, who scored at the problem-indicative or clinically significant distress levels on the GWB.

MMPI Data

The average profiles for males and for females are presented in figure 1. For this sample of interviewees, the average MMPI profile might be interpreted to reflect a little greater impulsivity than would be expected normally and a tendency toward unconventionality in both thought and behavior.[21] Whether these scores characterize college students on this campus or only students interested in being part of a psychological experiment was not explored in this report. The D scale (Depression) has a mean of 59.0, which is 0.9 of a standard deviation above "normal" which indicates a slightly depressive affect. There were also 42.6
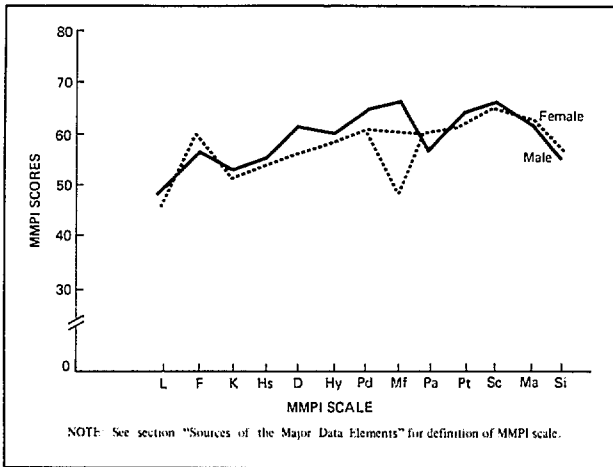
Figure 1. Mean MMPI profiles for males and for females.

percent who made a score of 60 or higher and 21.5 percent who made a score of 70 or higher, which is 1 and 2 standard deviations above 50.0, respectively.

Zung Self-Rating Depression Scale Data

Consistent with the scores on the other scales, the interviewees reported only a little distress, concern, or depression. The average total converted scores for both sexes (45.0) was somewhat higher than that reported by Zung for his "100 normal controls" (33.0) but not as high as for his patient population groups (63-90 before treatment). Simpkins and Burke reported mean scores for their community subjects of 40.5 for males and 44.4 for females,[11] compared with 42.3 and 46.7 in this sample, respectively. Thus the sample showed a slightly more depressive affect than these comparison groups.

College Health Questionnaire Data

Because of several discrepancies in details described by the authors of this scale in separate publications, it is impossible to compare our findings with otherwise similar studies.[17] These data are presented in table 1 for future comparisons by other researchers.

Psychiatric Symptoms Scale Data

Published norms do not exist for the unique subscales of Depression and Anxiety developed

for this study. No comparisons can be made. Future researchers can score their findings according to our codes for comparisons.

Personal Feelings Inventory Data

Again no published norms are available for comparisons using the two subscales for Depression and Anxiety. Future researchers can use these findings for their own comparisons.

In summary, the findings from the interviewer ratings, the GWB, MMPI, and Zung scales indicate that about one-third of the study sample reflected some degree of mild or greater depressive affect which was slightly greater than expected when compared with other investigators' "normative" findings. However, it is clear that the study sample distribution of scores on the depression measures provides a range of scores sufficiently great enough to allow a statistical determination of association to emerge among the different measures of depression, if there is in fact a definite relationship among these measures.

COMPARATIVE VALIDITY OF THE MAJOR DATA ELEMENTS WITH INTERVIEWER RATINGS OF DEPRESSION

The interviewer's rating of depression is viewed here as an independent criterion against which to assess the concurrent validity of the various measures of depression and other self-reported data elements. The interviewer used a structured questionnaire as a stimulus to elicit structured, semistructured, and open-field responses. The questionnaire did not include any specific or explicit questions about depression or anxiety. After each interview, the interviewer then made his or her rating of depression on a partially structured scale of 0-10 and possibly higher. A copy of the interview form is shown in the appendix. Table 3 shows the distribution of the ratings for the 195 students in the study. The high skewness of these ratings is apparent in that 63 percent of the ratings were 0 or 1, which reflect a positive or neutral affect, respectively. This skewness will tend to restrict the numerical values of the correlation coefficients for the scales which allow for more positive expressions

of well-being such as the GWB and, to some extent, the Zung scale.

Table 4 presents the product-moment correlation coefficients and significance levels of 73 major data elements with the interviewer ratings for males, females, and both sexes separately. Note that negative signs are not shown in the correlations except where the relationship was opposite from expected and for the three validity scales of the MMPI and age which are needed for interpretation. All GWB data elements, since they are scored as positive, would have negative signs; they are not shown since it would complicate the description of findings. The .01 level or better of statistical significance is used to describe a significant relationship in the presentation of findings.

Item-Level Correlations of the GWB and Zung With Interviewer Ratings

All 18 items of the GWB total scale were significantly correlated with the criterion for the total sample; however, only 10 items among the males but 17 items among the females had significant correlations. For the 6 criterial items, all were significant for the total sample, none were for males separately while 5 were for females separately. It is surprising that the correlations among the females were as high as they were considering the low frequency of response to having had or having felt near a nervous breakdown, or having been a clinical patient, or having had professional help (4 items). The responses to the question reflecting psychologic problems over the past year were moderately correlated with the criterion for both sexes. The social-emotional support item had a rather low relationship with the criterion and thus its content may not reflect a distressing aspect in students' lives in that only 12 students reported a lack of such support (options 3, 4, and 5 of the original code).

Among the 20 items in the Zung scale only 4 items for the total sample, none for males, and only 8 for females had a significant correlation with the criterion. Surprisingly, 13 items for the males and 2 items for the females had correlations in a negative direction with the criterion, which is opposite to what would be expected.

The highest item correlations with the criterion for each sex on the GWB scale were .44 for males (nervousness) and .46 for females (sad, discouraged, hopeless). For the Zung scale the highest item correlations were .34 for males (losing weight) and .36 females (still enjoy sex).

In general, item-criterion correlations were higher among females compared with males for both scales, and notably higher for the GWB items compared to the Zung items for both sexes. Age was not significantly correlated with the criterion for either sex although there was a slight tendency for more depressed ratings with higher age in this college sample.

Scale Correlations With the Interviewer Ratings

Of the 28 scales and subscales (SS) used in this study, 24 correlated with the criterion at the .01 level or better of significance for the total sample. However, only 8 scales among males compared with 20 scales among females were correlated at the .01 level or better (table A).

While the Personal Feelings Inventory (PFI) 45-item Depression scale had the highest correlations with the criterion for both the total group and males, these data were obtained for only 68 students—30 males and 38 females. The GWB 18-item total scale and its 2 subscales of cheerful versus depressed mood (4 items) and emotional-behavioral control (3 items) had the next highest correlations for all of the 195 students and generally for males and females separately. Of the remaining scales, only the 10-item Anxiety subscale of the Psychiatric Symptoms Scale (PSS) and the 4-item GWB subscale of relaxed versus tense-anxious correlated at the .01 level or better for both males and females separately. Thus, the three very short subscales of the GWB correlated with the criterion about as well as or better than the many other scales that had many more items. The 18-item GWB total scale had the highest correlations with the criterion when responses from the total sample (n = 195) are considered. The MMPI Depression scale and the Zung Depression scale worked very poorly for males (essentially zero correlations) but moderately well for females.

Table A. Product-moment correlations of scales and subscales (in rank order) with interviewer depression ratings, by sex

Rank order	Scale and subscale	Total	Male	Female
		Criterion correlation		
1	PFI—Depression	[1].50	[1].57	[1].42
2	GWB—Total scale	[1].47	[1].45	[1].48
3	GWB—(SS) Cheerful versus depressed mood	[1].44	[1].36	[1].48
4	GWB—(SS) Emotional-behavioral control	[1].43	[1].36	[1].48
5	PFI—Anxiety	[1].41	.42	[1].42
6	PSS—Anxiety	[1].40	[1].36	[1].42
7	PSS—Depression	[1].39	.25	[1].47
8	GWB—(SS) Relaxed versus tense, anxious	[1].38	[1].35	[1].40
9	CHQ—Current Depression	[1].36	−.01	[1].48
10	CHQ—Past Depression	[1].34	.03	[1].45
11	GWB—(SS) Satisfying, interesting life	[1].34	.23	[1].39
12	GWB—(SS) Energy level	[1].31	.25	[1].35
13	Zung—Depression	[1].28	−.01	[1].39
14	GWB—(SS) Free from health worry	[1].27	[1].35	.21
15	MMPI—(Pd) Psychopathic	[1].26	.08	[1].37
16	MMPI—(Sc) Schizophrenia	[1].25	.13	[1].34
17	MMPI—(Hs) Hypochondriasis	[1].24	[1].33	.19
18	MMPI—(D) Depression	[1].21	.05	[1].32
19	MMPI—(Pt) Psychasthenia	[1].21	.14	[1].27
20	MMPI—(Hy) Hysteria	[1].19	.17	.21
21	MMPI—(Ma) Hypomania	[1].18	.14	.21
22	MMPI—(Pa) Paranoia	[1].18	.01	[1].27
23	MMPI—(Si) Social Introversion-Extraversion	.17	.12	.19
24	CHQ—Anxiety	.10	.02	.13
25	MMPI—(Mf) Masculinity-Femininity Interests	.08	.07	.16
	MMPI validity scales			
1	(F) Validity	[1].34	.13	[1].45
2	(K) Correction	[1]−.21	−.01	[1]−.30
3	(L) Lie	−.12	−.21	−.06

[1]Correlations significant at .01 level.

An overview of these correlations suggests that the interviewer ratings of depression actually correlated about as highly with Anxiety scales as with the Depression scales. Thus, either the scales or the interviewers or both failed to differentiate between these two psychological states. It is also of interest to note the significant correlations with the criterion among males of the two scales reflecting fear or concern about health and health complaints while these did not significantly correlate with the criterion among females.

Intercorrelations Among the Depression, Anxiety, and GWB Scales

Table 5 presents the intercorrelation matrix among the Depression, Anxiety, GWB scales, and interviewer ratings for males and females combined. The correlation between the College Health Questionnaire (CHQ) Current and Past Depression scales (.96) should be ignored since 12 of the 14 items in the Past Depression scale are also included in the Current Depression scale; subscale correlations of the GWB with the GWB total scale should also be ignored since each subscale forms a part of the total scale. In general the intercorrelations among the depression scales, among the anxiety scales, and between the two sets of scales are quite high. No scale seems to be definitely more highly correlated with the other scales for either the depression or anxiety scales. The GWB subscale of cheerful versus depressed mood had an average correlation of .63 with the other six depression scales and of .54 with the four

anxiety scales. The GWB subscale of relaxed versus tense-anxious had an average correlation of .59 with the seven scales of depression and of .63 with the other three scales of anxiety, while these two GWB subscales correlated .70. Thus, while these two GWB subscales are highly correlated, they were slightly more related to their respective psychological states as reflected by other measures of these states.

The GWB subscale of emotional-behavioral control had high average correlations with the depression scales (.60) and with the anxiety scales (.57).

The GWB total scale had a very high average correlation of .69 with the six independent depression scales and of .64 with the three independent anxiety scales.

In general the seven depression and four anxiety scales seemed to have measured almost equally well the psychological states they had been constructed to measure; however, none of them clearly differentiated depression from anxiety. The total GWB scale measured depression and anxiety better than the separate scales measured them.

Multiple linear regression equations were computed using the six GWB subscales to predict each of the other depression and anxiety measures to determine the maximum amount of variance that could be accounted for in these measures. In table B the results are shown in terms of the multiple correlation coefficients

and compared with the simple zero-order product-moment correlations with the GWB total scale. The mean multiple correlations (R) indicate that very little was gained by differential weighting of the GWB subscales to predict a given measure above that of the GWB total scale scores. One thing of interest is that the mean multiple R's for males and females are the same while there was a slight difference by sex for the total GWB scale. The conclusion drawn from this is that the GWB total scale is as predictive for these various measures as a group for both sexes as would be differential weighting of the six GWB subscales.

SOME CONTENT PROPERTIES OF THE GWB

Reliability

The GWB was readministered to 41 students from the original sample about 3 months after the first test. The test-retest correlation was .851 for the total scale. The mean values of 74.6 for the first test and 73.0 for the second and standard deviations of 16.6 for the first test and 16.7 for the second were virtually identical. These data indicate that for each of these students the total GWB score was about the same at these two points in time.

The internal consistency coefficients of reliability were computed for the 18-item GWB total scale and the 20-item Zung scale by use of

Table B. Multiple correlations of Depression and Anxiety scales with six General Well-Being (GWB) subscales, zero-order correlations with total GWB scale, and mean correlations, by sex

Depression and Anxiety scale	Total	Male	Fe-male	Total	Male	Fe-male
	Multiple correlation			Zero-order correlation		
Interviewer rating	.491	.484	.518	.468	.445	.482
MMPI—(D) Depression	.574	.554	.638	.534	.442	.631
Zung—Depression	.691	.739	.684	.661	.618	.668
CHQ—Current Depression	.810	.732	.836	.801	.726	.820
CHQ—Past Depression	.726	.684	.755	.692	.626	.707
CHQ—Anxiety	.571	.632	.557	.516	.481	.510
PFI—Depression	.803	.932	.800	.780	.840	.730
PFI—Anxiety	.674	.794	.643	.630	.716	.538
PSS—Anxiety	.797	.758	.817	.759	.717	.774
PSS—Depression	.736	.722	.758	.704	.658	.729
Mean correlation	.687	.703	.701	.654	.627	.659

Table C. Internal consistency coefficients of reliability by sex for GWB and Zung scales

Scale	Number	Male	Female
	Internal consistency coefficient		
Total GWB	195	.912	.945
Zung	127	.830	.886

item to total scale score correlations for each sex and are shown in table C. The GWB total scale was somewhat more internally consistent than the Zung scale for both sexes while the differences between males and females within scales were not very great. The high level of internal consistency of the 18 GWB total scale items indicated that it is a homogeneous scale basically measuring a singular dimension or general psychological state in this sample. Thus, the subscales of the GWB also measured some properties of this general state and were somewhat highly intercorrelated as can be seen in table 6.

Using a different approach, the six subscales of the GWB were submitted to a cluster analysis along with the total score and the interviewer rating. The analyses were performed separately for males, females, and both sexes. Although the total score was first combined with subscale 5 (emotional-behavioral control), the stress values for that subscale and every other combination suggested that all of the separate subscales were at least partially independent of each other.

The Meaningfulness of the GWB

Taking into consideration the designated titles of the various measures used in this study as reflecting expressions of psychological states of depression and anxiety or the absence thereof, the moderate-to-high correlations of the GWB with these measures indicates that its major measurement dimension is also reflecting these states. It seems reasonable to view each of these two states as constituting a dimensionalized continuum of feelings of distress but not necessarily extending to a state of well-being. Since the GWB was the only measure in this study which purports to measure a sense of well-being and distress, its value in measuring well-being cannot be assessed herein. However, its capability to measure distress is clearly supported.

The weakest meaningful property of the GWB seems to be in the differentiation of the total scale into the six subscales. However, this weakness does not lie in the rational effort to differentiate a more global concept into its component parts, but rather in the need to include more elements of assessment in each component part so that more reliable measures can be made of these parts. An intensive analyses of the GWB item intercorrelations and their correlations with other measures indicated that the items in each subscale are most meaningfully placed within the designated subscale if these six rational subscales are to be used. For example, the two items in the health worry or concern subscale correlated .49 with each other which was higher than either one of them correlated with any of the other 16 GWB items. The desideratum is to construct a large number of items for each subscale and empirically determine the most homogeneous set that would also be least correlated with other subscales. However, even though the GWB subscales intercorrelated fairly highly in this college student sample, they may well show a more differentiated pattern (lower intercorrelations) among more severely distressed samples with more clearly differentiated symptom patterns, such as clinical patients.

The surprisingly high correlations of the GWB items with the other measures of depression and anxiety indicate that the multiple response options of these items are properly ordered and form mini-scales in their own right (table 7).

"PERSON TYPES"—CLUSTER AND DISCRIMINANT ANALYSES

A completely different approach was taken to explore the possibility that the study sample could be clustered into several "person types" with respect to the seven measures from the GWB (i.e., the six subscales plus the total) and the interviewer rating. Cluster analyses were run separately for males and females. Since there are no hard and fast rules regarding the optimum

number of groups to be obtained, the error factor associated with putting persons with grossly different scores in the same group must be weighed against the total number of groups that can be meaningfully identified. Five groups of males and five groups of females seemed to be the optimum number in this sample. These five groups were then submitted to a discriminant analysis which provided descriptive statistics on how the eight variables contributed to the differential group membership. The following interpretation is based on the statistics shown in table 8.

For the males the five groups of interviewees appeared to differ with respect to overall adjustment, interviewer rating, and the energy level subscale. These five groups might be described as: high well-being (group 1); about average well-being (group 2); about average well-being but concerned about their health (group 3); below average well-being (group 4); and distressed, unhappy, and depressed but not severely lacking in energy (group 5).

For the females the five groups of interviewees differed with respect to overall adjustment, interviewer rating, and subscale scores as had the males. These five groups might be described as: high well-being (group 1); about average well-being (group 2); below average well-being with somatic concern and low in energy (group 3); below average well-being with little somatic concern (group 4); and generally distressed, unhappy and depressed (group 5).

OVERALL EVALUATION OF THE GWB

After a great many statistical analyses of several different kinds, what can be said about the utility and validity of the GWB for assessing general well-being? The "hard" reasons for including the GWB in this research investigation were stated earlier in the text (see "Purpose"). In addition, the GWB was "pragmatically professional" when compared with the 566-item true-false MMPI or the relatively new College Health Questionnaire with its multiple-choice format. The GWB is well designed, easy to comprehend, and its content coverage is apparent. Since no previous data existed when this investigation was started in 1972, it was truly an untried instru-

ment and was included because of its manifest properties. However, did the GWB differentiate the more depressed students in our sample from the less depressed ones? The answer, as reflected in several criterial measures, is affirmative. It was clearly better than most of the other measures for each sex in its strength of relationship with the interviewer rating of depression. The total GWB scale and the two short, 4-item subscales of depression and tension-anxiety intercorrelated as highly with the other more extensive measures of these two states as these other measures did among themselves. None of the sample persons expressed any trouble either in understanding or in responding to the GWB items—unlike the true-false forced-choice format of the MMPI—and the GWB emerged as the single most useful instrument in measuring depression.

This particular study did not provide a reliable way to evaluate the GWB criterial section items because the sample was too homogeneous and markedly skewed on these behavioral manifestations of psychological distress. Evaluation of some of the GWB items and subscales was limited also because the criterial measures were selected basically to measure depression and anxiety and not some of the other rational content area built into the GWB.

The major weakness of the GWB seems to be that the subscales have too few items to provide content homogeneous and reliable subscales for individual assessment on these aspects of well-being or distress.

Where does the GWB stand in terms of current-day relevance? A recent article by Campbell[22] indicates that statistics, national or otherwise, have too long involved monetary and tangible product manifestations of our lives, while if it is the quality of the life experience of the population that is of concern, then measures have to be developed to assess the individual's sense of well-being. The General Well-Being schedule seems to have originated before its time but is now in the right place at the right time to present coherent and useful data about the subjective well-being of large cross sections of our citizenry.

Because the GWB is brief, well designed, and relevant in content, it should be useful in a

variety of research and applied settings, such as a quality-of-life index, a mental health status appraisal, a measure of psychotherapy outcome evaluation, and a social indicator for measuring population changes in sense of well-being over time. Accordingly, at a practical action level, it was recommended and included in a 1976 health needs study, involving a larger sample of college students ($n = 419$) attending the University of Wisconsin-Milwaukee. Data collected from this larger independent sample are very similar to the data reported here with respect to GWB scale score means, standard deviations, and other measurements. Because of the very large data base ($n = 6,931$) for the GWB from the NCHS' National Health Examination Survey of Adults (1971-1975), meaningful norms can be established against which individual and special sample comparisons can be made by researchers in many settings throughout the United States.

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LIST OF DETAILED TABLES

Item number	Major data element	Mean value			Standard deviation			Score range			
								Potential		Actual total	
		Total	Male	Fe-male	Total	Male	Fe-male	Low	High	Low	High
	GENERAL WELL-BEING SCHEDULE (GWB)										
	Scale items[1,2]										
1	Good spirits............................	2.9	3.1	2.8	1.0	0.9	1.0	0	5	0	5
2	Nervousness............................	3.7	3.8	3.5	1.1	1.1	1.1	0	5	0	5
3	Firm control of behavior, emotions............	3.7	3.9	3.5	1.1	1.1	1.1	0	5	0	5
4	Sad, discouraged, hopeless........................	4.0	4.2	3.8	1.2	1.1	1.2	0	5	0	5
5	Stress, strain, pressure	2.7	2.8	2.7	1.2	1.3	1.2	0	5	0	5
6	Happy, satisfied with life........................	2.7	2.6	2.7	1.3	1.2	1.4	0	5	0	5
7	Afraid of losing mind, or losing control	4.3	4.4	4.2	1.2	1.2	1.2	0	5	0	5
8	Anxious, worried, upset	3.3	3.6	3.1	1.2	1.1	1.3	0	5	0	5
9	Waking fresh, rested	2.8	2.8	2.8	1.1	1.2	1.1	0	5	0	5
10	Bothered by bodily disorders	4.0	4.3	3.9	1.1	1.0	1.2	0	5	0	5
11	Interesting daily life	3.2	3.1	3.3	1.1	1.1	1.2	0	5	1	5
12	Downhearted, blue........................	3.5	3.7	3.4	1.0	0.9	1.0	0	5	0	5
13	Emotionally stable, sure of self	3.5	3.8	3.3	1.2	1.1	1.2	0	5	0	5
14	Feeling tired, worn out................................	3.2	3.4	3.1	1.1	1.1	1.2	0	5	0	5
15	Health concern, worry............................	7.2	7.3	7.2	2.4	2.5	2.4	0	10	0	10
16	Relaxed-tense........................	5.4	5.7	5.2	2.4	2.3	2.5	0	10	0	10
17	Energy level............................	6.0	6.3	5.8	2.1	1.9	2.1	0	10	1	10
18	Depressed-cheerful	6.2	6.2	6.2	2.1	2.0	2.2	0	10	0	10
	Criterial items[1,2]										
19	Psychologic problems................................	3.5	3.7	3.4	1.1	1.0	1.2	1	5	1	5
20	Felt near nervous breakdown	2.6	2.7	2.6	0.7	0.7	0.7	1	3	1	3
21	Had nervous breakdown............................	2.9	2.9	2.9	0.3	0.2	0.3	1	3	1	3
22	Clinical patient........................	2.9	2.9	2.9	0.3	0.3	0.3	1	3	1	3
23	Psychologic attention	2.9	2.8	2.9	0.4	0.4	0.4	1	3	1	3
24	Social-emotional support............................	4.7	4.5	4.8	1.3	1.2	1.3	1	7	1	7
	Subscales[1,2]										
25	Freedom from health concern, worry, or distress................................	11.3	11.6	11.1	3.2	3.2	3.1	0	15	1	15
26	Energy level............................	11.9	12.5	11.6	3.6	3.3	3.8	0	20	3	19
27	Satisfying, interesting life............................	5.9	5.7	6.0	2.2	1.9	2.3	0	10	1	10
28	Cheerful versus depressed mood................	16.7	17.2	16.3	4.5	4.2	4.7	0	25	4	25
29	Relaxed versus tense, anxious....................	15.1	15.9	14.5	5.0	4.8	5.0	0	25	1	25
30	Emotional-behavioral control	11.5	12.1	11.1	2.8	2.7	2.8	0	15	2	15
31	GWB total scale[2]	72.4	75.1	70.5	16.7	14.8	17.8	0	110	27	108
32	Age........................	19.2	19.6	18.9	2.5	2.4	2.5	...	...	16	34
33	Interviewer depression rating........................	1.4	1.3	1.4	1.5	1.3	1.5	0	10	0	8
	PSYCHIATRIC SYMPTOMS SCALE (PSS)[1]										
34	Anxiety	2.9	2.4	3.2	2.7	2.5	2.8	0	10	0	10
35	Depression........................	1.7	1.6	1.8	1.8	2.8	1.9	0	7	0	7

See footnotes at end of table.

Table 1. Means, standard deviations, and score ranges for the major data elements, by sex—Con.

Item num-ber	Major data element	Mean value			Standard deviation			Score range			
								Potential		Actual total	
		Total	Male	Fe-male	Total	Male	Fe-male	Low	High	Low	High
	MINNESOTA MULTIPHASIC PER-SONALITY INVENTORY (MMPI) T SCORES[1,3]										
	Validity scales										
36	(L) Lie..................................	47.0	48.4	46.0	6.6	7.6	5.6	36	86	36	73
37	(F) Validity	59.1	58.8	59.4	10.6	9.9	11.0	44	110	44	98
38	(K) Correction......................	51.6	52.9	50.6	8.8	9.4	8.3	27	83	31	75
	Clinical scales[1]										
39	(Hs) Hypochondriasis.................................	55.0	56.1	54.3	10.2	11.3	9.4	20	118	34	103
40	(D) Depression	59.0	60.8	57.8	13.8	14.2	13.4	28	120	34	103
41	(Hy) Hysteria	58.6	59.2	58.2	8.9	9.1	8.9	24	118	38	86
42	(Pd) Psychopathic	62.0	64.5	60.3	12.2	11.6	12.3	20	119	29	97
43	(Mf) Masculinity-Femininity Interests	53.1	64.1	45.6	13.0	9.5	9.1	20	110	20	90
44	(Pa) Paranoia...	58.7	57.3	59.7	10.5	10.5	10.4	27	120	27	91
45	(Pt) Psychasthenia......................................	61.7	62.7	61.0	11.3	12.4	10.5	20	120	26	93
46	(Sc) Schizophrenia......................................	65.0	65.3	64.7	14.3	15.9	13.2	21	119	25	115
47	(Ma) Hypomania	61.7	60.9	62.2	11.9	12.5	11.6	21	108	35	96
48	(Si) Social Introversion-Extraversion...........	56.5	54.8	57.7	11.7	11.0	12.0	25	97	36	87
	ZUNG DEPRESSION ITEMS[4]										
49	Downhearted, blue......................................	1.7	1.6	1.8	0.7	0.8	0.7	1	4	1	4
50	Morning, feel best..	3.1	3.3	3.0	0.9	0.8	0.9	1	4	1	4
51	Crying spells	1.4	1.1	1.7	0.7	0.3	0.7	1	4	1	4
52	Trouble sleeping	1.6	1.5	1.6	0.8	0.8	0.8	1	4	1	4
53	Eat as much as usual...................................	1.8	1.3	2.0	1.1	0.8	1.2	1	4	1	4
54	Still enjoy sex	1.6	1.6	1.6	1.0	1.0	1.0	1	4	1	4
55	Losing weight	1.5	1.3	1.6	0.9	0.6	1.0	1	4	1	4
56	Constipated...	1.3	1.2	1.3	0.6	0.4	0.7	1	4	1	4
57	Heart beats fast	1.4	1.4	1.4	0.6	0.7	0.5	1	4	1	4
58	Get tired for no reason	1.7	1.3	1.9	0.9	0.6	1.0	1	4	1	4
59	Mind clear as usual	1.9	1.7	2.1	1.0	0.9	1.0	1	4	1	4
60	Easy to do things...	2.1	2.0	2.1	1.1	1.0	1.1	1	4	1	4
61	Restless, can't keep still..............................	2.1	2.1	2.2	1.0	1.2	1.0	1	4	1	4
62	Hopeful about future	1.8	1.6	2.0	1.0	0.8	1.1	1	4	1	4
63	More irritable than usual	1.7	1.6	1.8	0.8	0.8	0.8	1	4	1	4
64	Easy to make decisions................................	2.2	1.9	2.4	1.1	1.0	1.1	1	4	1	4
65	Feel useful and needed................................	2.2	2.2	2.2	1.1	1.1	1.1	1	4	1	4
66	Life is pretty full	1.8	1.9	1.8	1.0	0.9	1.0	1	4	1	3
67	Others better off if I were dead....................	1.1	1.2	1.1	0.5	0.6	0.4	1	4	1	4
68	Still enjoy things	1.9	1.9	1.9	1.0	1.0	1.0	1	4	1	4
69	Zung total score (SDS)	45.0	42.3	46.7	11.8	10.2	12.4	25	100	28	81
	COLLEGE HEALTH QUESTIONNAIRE (CHQ)[4]										
70	Current Depression	38.9	36.3	40.6	9.6	7.0	10.6	19	75	22	65
71	Past Depression...	28.6	25.5	30.5	8.7	6.5	9.3	14	56	15	48
72	Anxiety...	11.1	9.8	11.9	3.7	2.9	3.9	6	25	6	21

See footnotes at end of table.

Table 1. Means, standard deviations, and score ranges for the major data elements, by sex—Con.

Item number	Major data element	Mean value			Standard deviation			Score range			
								Potential		Actual total	
		Total	Male	Fe-male	Total	Male	Fe-male	Low	High	Low	High
	PERSONAL FEELINGS INVEN-TORY (PFI)[5]										
73	Depression..................................	10.3	9.8	10.6	7.9	9.0	7.1	0	45	0	32
74	Anxiety	4.8	3.8	5.5	3.8	3.8	3.6	0	21	0	18

[1]Total number of students = 195 (79 males, 116 females).
[2]A higher GWB score reflects higher positive well-being.
[3]Scored according to the revised 1967 manual.
[4]Total number of students = 127 (49 males, 78 females).
[5]Total number of students = 68 (30 males, 38 females).

Table 2. Evaluative assessment of unweighted national sample based on the General Well-Being (GWB) total scale scores

Descriptive attribution of evaluative assessment of general well-being or distress	Total GWB score	Percent distri-bution of sample
Total	...	100.0
Positive well-being	...	74.1
Euphoric mood	101-110	10.4
Strong positive	91-100	22.7
Moderately high	81-90	22.4
Low positive...	76-80	9.5
Marginal	71-75	9.1
Problem-indicative stress..	...	16.3
Mild...	66-70	6.9
Moderate...	61-65	5.4
Severe...	56-60	4.0
Clinically significant distress	...	9.6
Mild...	51-55	3.1
Moderate...	41-50	3.5
Severe...	26-40	2.3
Suicidal risk..	00-25	0.7

NOTES: $n = 6,931$; $\overline{X} = 80.3$; S.D. $= 17.7$.

Table 3. Number and percent distribution of study sample, by total General Well-Being (GWB) scale and interviewer depression rating scale

GWB score	Percent distri-bution	Total	Depression rating scale										
			0	1	2	3	4	5	6	7	8	9	10
			Number										
All students....................	100.0	195	63	60	42	15	6	5	2	1	1	-	-
Positive well-being	59.6	116	49	42	20	3	2	-	-	-	-	-	-
101-110...	2.6	5	3	1	1	-	-	-	-	-	-	-	-
91-100...	10.3	20	8	8	3	-	1	-	-	-	-	-	-
81-90...	21.0	41	17	13	9	2	-	-	-	-	-	-	-
76-80...	15.4	30	11	13	5	1	-	-	-	-	-	-	-
71-75...	10.3	20	10	7	2	-	1	-	-	-	-	-	-
Problem-indicative stress......	22.5	44	11	11	13	3	2	3	1	-	-	-	-
66-70...	9.7	19	3	4	7	3	1	1	-	-	-	-	-
61-65...	7.7	15	5	5	4	-	-	1	-	-	-	-	-
56-60...	5.1	10	3	2	2	-	1	1	1	-	-	-	-
Clinically significant stress...	17.9	35	4	6	9	9	2	2	1	1	1	-	-
51-55...	8.7	17	4	4	4	4	1	-	-	-	-	-	-
41-50...	4.6	9	-	1	3	3	1	1	-	-	-	-	-
26-40...	4.6	9	-	1	2	2	-	1	1	1	1	-	-
00-25...	-	-	-	-	-	-	-	-	-	-	-	-	-
Mean GWB score	...	72.4	78.4	76.0	69.6	57.7	66.8	51.8	45.0	40.0	31.0	-	-
Standard deviation	...	16.7	13.2	13.8	15.3	17.0	15.8	14.3	-	12.0	-	-	-

Table 4. Product-moment correlation coefficients of major data elements with interviewer depression rating, and significance levels, by sex

Item number	Major data element	Total	Male	Female	Total	Male	Female
	GENERAL WELL-BEING SCHEDULE (GWB)	Correlation coefficient			Significance level		
	Scale items						
1	Good spirits	34	28	38	.000	.012	.000
2	Nervousness	35	44	30	.000	.000	.001
3	Firm control of behavior, emotions	38	31	43	.000	.006	.000
4	Sad, discouraged, hopeless	39	27	46	.000	.016	.000
5	Stress, strain, pressure	26	15	33	.000	.197	.000
6	Happy, satisfied with life	28	25	30	.000	.027	.001
7	Afraid of losing mind, or losing control	34	30	37	.000	.007	.000
8	Anxious, worried, upset	33	31	35	.000	.005	.000
9	Waking fresh, rested	28	24	30	.000	.031	.001
10	Bothered by bodily disorders	29	37	26	.000	.001	.006
11	Interesting daily life	29	13	39	.000	.267	.000
12	Downhearted, blue	39	31	44	.000	.005	.000
13	Emotionally stable, sure of self	33	24	39	.000	.032	.000
14	Feeling tired, worn out	24	07	33	.001	.540	.000
15	Health concern, worry	20	30	14	.005	.008	.132
16	Relaxed-tense	32	29	33	.000	.009	.001
17	Energy level	27	22	30	.000	.046	.001
18	Depressed-cheerful	38	35	40	.000	.002	.000
	Criterial items						
19	Psychologic problems	30	26	32	.000	.021	.001
20	Felt near nervous breakdown	25	01	39	.001	.955	.000
21	Had nervous breakdown	25	12	31	.001	.307	.001
22	Clinical patient	28	21	32	.000	.065	.001
23	Psychologic attention	18	08	25	.010	.474	.008
24	Social-emotional support	19	15	22	.008	.196	.016
	Subscales						
25	Freedom from health concern, worry, distress	27	35	21	.000	.002	.021
26	Energy level	31	25	35	.000	.028	.000
27	Satisfying, interesting life	34	23	39	.000	.044	.000
28	Cheerful versus depressed mood	44	36	48	.000	.001	.000
29	Relaxed versus tense, anxious feeling	38	35	40	.000	.002	.000
30	Emotional-behavioral control	43	36	48	.000	.001	.000
31	GWB total scale	47	45	48	.000	.000	.000
32	Age	15	22	12	.031	.053	.184
33	Interviewer depression rating	...	...	...	...	...	...
	PSYCHIATRIC SYMPTOMS SCALE (PSS)						
34	Anxiety	40	36	42	.000	.001	.000
35	Depression	39	25	47	.000	.025	.000
	MINNESOTA MULTIPHASIC PERSONALITY INVENTORY (MMPI)						
	Validity scales						
36	(L) Lie	-12	-21	-06	.083	.066	.516
37	(F) Validity	34	13	45	.000	.251	.000
38	(K) Correction	-21	-01	-30	.003	.397	.002

Table 4. Product-moment correlation coefficients of major data elements with interviewer depression rating, and significance levels, by sex—Con.

Item number	Major data elements	Total	Male	Female	Total	Male	Female
	Clinical scales	Correlation coefficient			Significance level		
39	(Hs) Hypochondriasis	24	33	19	.001	.003	.045
40	(D) Depression	21	05	32	.003	.683	.001
41	(Hy) Hysteria	19	17	21	.008	.141	.027
42	(Pd) Psychopathic	26	08	37	.000	.489	.000
43	(Mf) Masculinity-Femininity Interests	08	07	16	.290	.544	.088
44	(Pa) Paranoia	18	01	27	.014	.917	.003
45	(Pt) Psychasthenia	21	14	27	.003	.210	.004
46	(Sc) Schizophrenia	25	13	34	.001	.250	.000
47	(Ma) Hypomania	18	14	21	.010	.203	.024
48	(Si) Social Introversion-Extraversion	17	12	19	.018	.282	.037
	ZUNG DEPRESSION ITEMS						
49	Downhearted, blue	19	−13	34	.033	.381	.002
50	Morning, feel best	07	−08	15	.404	.560	.182
51	Crying spells	17	−17	24	.062	.237	.032
52	Trouble sleeping	05	−11	11	.603	.465	.337
53	Eat as much as usual	13	−05	19	.131	.754	.095
54	Still enjoy sex	18	−20	36	.043	.158	.001
55	Losing weight	05	34	−04	.552	.018	.720
56	Constipated	09	−10	15	.291	.506	.192
57	Heart beats fast	03	14	−04	.754	.347	.726
58	Get tired for no reason	16	−02	20	.081	.902	.082
59	Mind clear as usual	21	−07	33	.016	.636	.003
60	Easy to do things	07	−09	13	.442	.554	.245
61	Restless, can't keep still	26	19	31	.004	.196	.006
62	Hopeful about future	22	14	24	.014	.346	.032
63	More irritable than usual	25	05	33	.006	.750	.003
64	Easy to make decisions	10	01	13	.254	.946	.242
65	Feel useful and needed	22	09	29	.012	.552	.011
66	Life is pretty full	15	−07	24	.102	.641	.036
67	Others better off if I were dead	15	−06	30	.100	.692	.009
68	Still enjoy things	17	−08	29	.055	.579	.009
69	Zung total score (SDS)	28	−01	39	.002	.934	.001
	COLLEGE HEALTH QUESTIONNAIRE (CHQ)						
70	Current Depression	36	−01	48	.000	.960	.000
71	Past Depression	34	03	45	.000	.812	.000
72	Anxiety	10	02	13	.243	.877	.268
	PERSONAL FEELINGS INVENTORY (PFI)						
73	Depression	50	57	42	.000	.001	.009
74	Anxiety	41	42	42	.001	.019	.008

NOTE: Decimal omitted before correlation coefficients.

Table 5. Intercorrelations among the Depression, Anxiety, and GWB scales for combined male and female sample

Scales and subscales	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
Depression																	
1. Interviewer depression rating	...																
2. GWB—Cheerful versus depressed mood	44	...															
3. PSS—Depression	39	70	...														
4. MMPI—Depression	21	50	53	...													
5. Zung—Depression	28	62	63	72	...												
6. CHQ—Current Depression	36	71	71	50	66	...											
7. CHQ—Past Depression	34	58	65	40	59	96	...										
8. PFI—Depression	50	67	78	65	(1)	(1)	(1)	...									
Anxiety																	
9. GWB—Relaxed versus tense-anxious	38	70	59	39	51	69	61	66	...								
10. PSS—Anxiety	40	60	65	43	56	78	75	78	76	...							
11. CHQ—Anxiety	10	37	42	26	46	63	65	(1)	51	72	...						
12. PFI—Anxiety	41	51	65	45	(1)	(1)	(1)	66	62	80	(1)	...					
Other GWB																	
13. Emotional-behavioral control	43	69	64	41	61	64	57	63	64	62	45	58	...				
14. Satisfying, interesting life	34	72	52	50	55	47	33	54	52	43	24	37	55	...			
15. Energy level	31	64	52	42	52	67	59	70	58	54	44	46	53	48	...		
16. Freedom from health concern, worry, or distress	27	25	29	28	26	44	44	46	48	49	34	38	33	16	41	...	
17. Total scale	47	87	70	53	66	80	69	78	88	76	52	63	79	71	79	56	...
Number of items per scale or subscale	1	4	7	60	20	19	14	45	4	10	6	21	3	2	3	2	18
Number in sample	195	195	195	195	127	127	127	68	195	195	127	68	195	195	195	195	195

[1]Scales not taken together by the same students.

NOTE: Decimal omitted before correlation coefficients.

Item number	Major data element	Total scale	GWB subscale						Subscale multiple R
			Health concern or worry	Energy level	Satisfying, interesting life	Cheerful versus depressed	Relaxed versus tense	Emotional-behavioral control	
	GENERAL WELL-BEING SCHEDULE (GWB)								
	Scale items								
1	Good spirits..	73	14	59	64	83	58	57	84
2	Nervousness..	67	35	36	40	55	78	54	79
3	Firm control of behavior, emotions.....................	65	21	45	44	59	52	82	82
4	Sad, discouraged, hopeless.............................	72	29	41	50	79	62	69	84
5	Stress, strain, pressure	68	38	51	38	53	75	49	76
6	Happy, satisfied with life..............................	64	12	43	87	69	47	51	88
7	Afraid losing mind, or losing control	52	30	28	35	41	40	77	80
8	Anxious, worried, upset	75	37	45	47	67	81	62	83
9	Waking fresh, rested	60	28	79	39	47	47	36	80
10	Bothered by bodily disorders	52	75	41	19	28	43	40	77
11	Interesting daily life	57	16	42	85	55	41	42	86
12	Downhearted, blue......................................	77	19	54	64	88	64	65	89
13	Emotionally stable, sure of self	76	29	55	54	68	64	83	85
14	Feeling tired, worn out.................................	67	45	77	34	50	55	47	79
15	Health concern, worry...................................	48	94	33	12	19	43	24	95
16	Relaxed-tense...	77	45	53	45	59	90	51	91
17	Energy level..	69	31	88	47	60	46	47	89
18	Depressed-cheerful	78	21	62	68	92	60	53	93
	Criterial items								
19	Psychologic problems...................................	49	37	43	22	40	38	45	55
20	Felt near nervous breakdown	47	34	32	24	34	48	43	52
21	Had nervous breakdown.................................	12	20	05	02	10	07	11	[1]25
22	Clinical patient..	25	30	17	13	19	17	23	34
23	Psychologic attention	17	29	09	07	09	12	18	32
24	Social-emotional support................................	26	18	22	23	23	15	24	32
	Subscales								
25	Freedom from health concern, worry, or distress..	56	...	41	16	25	48	33	...
26	Energy level..	79	41	...	48	64	58	53	...
27	Satisfying, interesting life............................	71	16	48	...	72	52	55	...
28	Cheerful versus depressed mood........................	87	25	64	72	...	70	69	...
29	Relaxed versus tense-anxious..........................	88	48	58	52	70	...	64	...
30	Emotional-behavioral control	79	33	53	55	69	64	...	...
31	GWB total scale..	...	56	79	71	87	88	79	...
32	Age..	−13	01	−10	−20	−16	−05	−13	[1]23
33	Interviewer depression rating...........................	−47	−27	−31	−34	−44	−38	−43	−49
	PSYCHIATRIC SYMPTOMS SCALE (PSS)								
34	Anxiety	76	49	54	43	60	76	62	80
35	Depression..	70	29	52	52	70	59	64	74

[1]Not significant at .01 level.

Table 6. Product-moment correlations of major data elements with General Well-Being (GWB) total scale, subscales, and subscale multiple correlation (R) for total sample—Con.

Item number	Major data element	Total scale	GWB subscale						Subscale multiple R
			Health concern or worry	Energy level	Satisfying, interesting life	Cheerful versus depressed	Relaxed versus tense	Emotional-behavioral control	
	MINNESOTA MULTIPHASIC PERSONALITY INVENTORY (MMPI) T SCORES								
	Validity scales								
36	(L) Lie	24	21	23	09	17	25	13	30
37	(F) Validity	−56	−40	−45	−38	−46	−43	−53	−60
38	(K) Correction	49	33	43	25	40	44	39	52
	Clinical scales								
39	(Hs) Hypochondriasis	40	33	32	25	31	33	32	42
40	(D) Depression	53	28	42	50	50	39	41	57
41	(Hy) Hysteria	39	31	29	30	32	29	33	43
42	(Pd) Psychopathic	46	33	34	39	43	31	36	52
43	(Mf) Masculinity-Femininity Interests	01	00	03	−12	01	04	02	[1]20
44	(Pa) Paranoia	36	32	15	18	28	36	33	45
45	(Pt) Psychasthenia	45	19	32	39	42	39	39	47
46	(Sc) Schizophrenia	53	35	38	36	44	43	52	56
47	(Ma) Hypomania	16	22	13	11	07	16	27	43
48	(Si) Social Introversion-Extraversion	44	15	36	41	42	35	36	47
	ZUNG DEPRESSION ITEMS								
49	Downhearted, blue	52	17	36	49	52	38	53	59
50	Morning, feel best	01	05	08	03	01	01	03	[1]15
51	Crying spells	39	23	29	22	37	33	33	41
52	Trouble sleeping	27	18	33	08	16	20	27	39
53	Eat as much as usual	32	18	14	25	30	27	34	38
54	Still enjoy sex	31	06	23	31	35	20	31	38
55	Losing weight	11	08	01	09	09	11	13	[1]19
56	Constipated	25	08	18	30	19	29	12	40
57	Heart beats fast	15	13	07	05	11	13	22	[1]25
58	Get tired for no reason	43	24	45	36	36	27	36	50
59	Mind clear as usual	46	13	24	41	45	44	45	53
60	Easy to do things	42	14	41	35	41	33	34	46
61	Restless, can't keep still	36	28	25	16	28	35	28	39
62	Hopeful about future	47	06	37	46	54	30	45	58
63	More irritable than usual	33	24	33	15	27	26	21	37
64	Easy to make decisions	40	12	34	32	38	35	36	43
65	Feel useful and needed	56	19	50	48	53	42	45	59
66	Life is pretty full	41	12	26	58	42	28	28	58
67	Others better off if I were dead	25	02	17	24	29	14	34	39
68	Still enjoy things	37	19	29	27	32	28	39	41
69	Zung total score (SDS)	66	26	52	55	62	51	61	69

[1]Not significant at .01 level.

Table 6. Product-moment correlations of major data elements with General Well-Being (GWB) total scale, subscales, and subscale multiple correlations (*R*) for total sample—Con.

Item number	Major data element	Total scale	GWB subscale						Subscale multiple *R*
			Health concern or worry	Energy level	Satisfying, interesting life	Cheerful versus depressed	Relaxed versus tense	Emotional-behavioral control	
	COLLEGE HEALTH QUESTIONNAIRE (CHQ)								
70	Current Depression	80	44	67	47	71	69	64	81
71	Past Depression	69	44	59	33	58	61	57	73
72	Anxiety	52	34	44	24	37	51	45	57
	PERSONAL FEELINGS INVENTORY (PFI)								
73	Depression	78	46	70	54	67	66	63	80
74	Anxiety	63	38	46	37	51	62	58	67

NOTE: Decimals omitted before correlation coefficients.

Table 7. Product-moment correlations of the major data elements with other Depression and Anxiety scales for total sample

Item number	Major data element	Psychiatric Symptoms Scale (PSS)		MMPI	Zung	College Health Questionnaire (CHQ)			Personal Feelings Inventory (PFI)	
		Anxiety	Depression	Depression	Depression	Current depression	Past depression	Anxiety	Depression	Anxiety
	GENERAL WELL-BEING SCHEDULE (GWB)									
	Scale items									
1	Good spirits	50	53	39	49	60	49	36	56	44
2	Nervousness	67	52	37	43	58	52	36	57	52
3	Firm control of behavior, emotions	45	50	21	46	52	47	38	45	40
4	Sad, discouraged, hopeless	56	72	43	56	68	59	33	57	45
5	Stress, strain, pressure	51	46	21	32	50	44	40	42	41
6	Happy, satisfied with life	41	47	41	47	39	28	23	41	31
7	Afraid losing mind, or losing control	46	49	39	51	52	48	34	34	37
8	Anxious, worried, upset	65	59	32	48	67	62	49	53	45
9	Waking fresh, rested	43	37	33	41	52	46	27	59	34
10	Bothered by bodily disorders	48	37	28	36	47	49	34	46	46
11	Interesting daily life	31	45	46	50	42	28	18	53	33
12	Downhearted, blue	55	65	44	58	65	59	32	62	50
13	Emotionally stable, sure of self	61	55	41	55	57	48	40	66	57
14	Feeling tired, worn out	50	43	33	39	60	55	36	61	47
15	Health concern, worry	42	21	22	14	35	35	29	38	28
16	Relaxed-tense	67	44	37	43	55	46	43	61	60
17	Energy level	44	46	40	48	53	43	37	60	39
18	Depressed-cheerful	49	55	46	54	57	43	29	55	39
	Criterial items									
19	Psychologic problems	48	38	19	34	49	51	41	47	59
20	Felt near nervous breakdown	53	39	23	31	49	45	45	33	26
21	Had nervous breakdown	18	18	15	07	12	15	09	06	09
22	Clinical patient	23	19	17	21	21	22	17	04	09
23	Psychologic attention	23	18	15	21	16	18	12	10	12
24	Social-emotional support	23	31	31	31	26	22	05	27	26
	Subscales									
25	Freedom from health concern, worry, or distress	49	29	28	26	44	44	34	46	38
26	Energy level	54	52	42	52	67	59	44	70	46
27	Satisfying, interesting life	43	52	50	55	47	33	24	54	37
28	Cheerful versus depressed mood	60	70	50	62	71	58	37	67	51
29	Relaxed versus tense, anxious	76	59	39	51	69	61	51	66	62
30	Emotional-behavioral control	62	64	41	61	64	57	45	63	58
31	GWB total scale score	76	70	53	66	80	69	52	78	63
32	Age	−02	10	04	−05	02	01	−02	08	−06
33	Interviewer depression rating	40	39	21	28	36	34	10	50	41
	PSYCHIATRIC SYMPTOMS SCALE (PSS)									
34	Anxiety	...	65	43	56	78	75	72	78	80
35	Depression	65	...	53	63	71	65	42	78	65

Table 7. Product-moment correlations of the major data elements with other Depression and Anxiety scales for total sample—Con.

Item number	Major data element	Psychiatric Symptoms Scale (PSS)		MMPI	Zung	College Health Questionnaire (CHQ)			Personal Feelings Inventory (PFI)	
		Anxiety	Depression	Depression	Depression	Current depression	Past depression	Anxiety	Depression	Anxiety
	MINNESOTA MULTIPHASIC PERSONALITY INVENTORY (MMPI) T SCORES									
	Validity scales									
36	(L) Lie..	−23	−14	−02	−13	−23	−21	−26	−41	−31
37	(F) Validity	62	60	59	62	62	58	46	60	56
38	(K) Correction.......................................	−58	−53	−37	−50	−60	−59	−51	−63	−52
	Clinical scales									
39	(Hs) Hypochondriasis............................	39	30	44	51	40	36	31	27	25
40	(D) Depression	43	53	...	72	50	40	26	65	45
41	(Hy) Hysteria..	31	27	41	46	34	31	21	24	22
42	(Pd) Psychopathic.................................	38	41	55	46	42	36	12	42	40
43	(Mf) Masculinity-Femininity Interests..................	02	09	11	−07	−07	−12	−18	10	−07
44	(Pa) Paranoia..	42	41	32	38	40	43	27	24	37
45	(Pt) Psychasthenia................................	41	52	66	57	42	36	30	60	53
46	(Sc) Schizophrenia	54	55	62	64	55	50	39	59	58
47	(Ma) Hypomania....................................	30	22	−05	08	17	25	24	34	36
48	(Si) Social Introversion-Extraversion	41	51	65	63	51	45	41	54	46
	ZUNG DEPRESSION ITEMS									
49	Downhearted, blue...............................	43	58	58	66	50	44	32	...	...
50	Morning, feel best................................	01	−10	14	14	−05	−08	02	...	...
51	Crying spells..	43	39	27	52	49	51	38	...	...
52	Trouble sleeping...................................	35	18	13	34	33	35	43	...	...
53	Eat as much as usual	31	25	27	52	31	30	21	...	...
54	Still enjoy sex......................................	29	41	30	51	34	28	12	...	...
55	Losing weight.......................................	11	10	18	32	14	17	16	...	...
56	Constipated..	26	18	34	39	29	27	12	...	...
57	Heart beats fast...................................	15	17	23	27	14	15	20	...	...
58	Get tired for no reason	37	47	42	65	39	34	36	...	...
59	Mind clear as usual..............................	42	45	47	62	44	38	31	...	...
60	Easy to do things.................................	32	37	48	64	36	29	29	...	...
61	Restless, can't keep still.......................	41	33	30	47	38	37	22	...	...
62	Hopeful about future	32	46	57	67	42	31	26	...	...
63	More irritable than usual	29	39	31	46	43	44	25	...	...
64	Easy to make decisions.........................	30	39	47	58	42	40	38	...	...
65	Feel useful and needed.........................	46	52	59	73	55	45	27	...	...
66	Life is pretty full..................................	28	38	57	61	35	24	13	...	...
67	Others better off if I were dead..........................	12	26	35	39	29	25	05	...	...
68	Still enjoy things..................................	29	30	49	63	32	26	20	...	...
69	Zung total score (SDS).........................	56	63	72	...	66	59	46	...	...
	COLLEGE HEALTH QUESTIONNAIRE (CHQ)									
70	Current Depression	78	71	50	66	...	96	63	...	...
71	Past Depression	75	65	40	59	96	...	65	...	...
72	Anxiety..	72	42	26	46	63	65	...	...	...

Table 7. Product-moment correlations of the major data elements with other Depression and Anxiety scales for total sample—Con.

Item number	Major data element	Psychiatric Symptoms Scale (PSS)		MMPI	Zung	College Health Questionnaire (CHQ)			Personal Feelings Inventory (PFI)	
		Anxiety	Depression	Depression	Depression	Current depression	Past depression	Anxiety	Depression	Anxiety
	PERSONAL FEELINGS INVENTORY (PFI)									
73	Depression	78	78	65	. . .	. . .	. . .	. . .	. . .	66
74	Anxiety	80	65	45	. . .	. . .	. . .	. . .	66	. . .

NOTE: Decimals omitted before correlation coefficients.

Table 8. Person-type cluster analyses descriptive statistics, by group type, sex, and scale

Sex and scale	Group 1			Group 2			Group 3			Group 4			Group 5		
	n	$\overline{X}$	SD	n	$\overline{X}$	SD	n	$\overline{X}$	SD	n	$\overline{X}$	SD	n	$\overline{X}$	SD
Male															
Total	25	. . .	. . .	21	. . .	. . .	8	. . .	. . .	22	. . .	. . .	3	. . .	. . .
1. Free from health worry	. . .	13.5	1.7	. . .	12.7	1.6	. . .	6.9	1.4	. . .	10.7	2.9	. . .	7.0	7.2
2. Energy level	. . .	15.4	2.2	. . .	12.2	1.8	. . .	10.9	4.0	. . .	10.3	2.9	. . .	10.3	2.1
3. Satisfying, interesting life	. . .	6.7	1.6	. . .	5.3	1.7	. . .	7.4	1.2	. . .	4.4	1.3	. . .	3.3	2.5
4. Cheerful versus depressed mood	. . .	20.7	2.7	. . .	17.4	2.2	. . .	18.6	2.2	. . .	14.1	3.1	. . .	7.3	4.9
5. Relaxed versus tense, anxious	. . .	20.2	2.8	. . .	15.9	3.3	. . .	13.6	3.3	. . .	13.5	3.7	. . .	4.7	3.5
6. Emotional-behavioral control	. . .	14.0	1.2	. . .	12.5	1.9	. . .	12.7	1.0	. . .	10.4	2.5	. . .	4.7	2.1
7. Total GWB	. . .	90.5	8.1	. . .	76.0	7.6	. . .	70.1	7.9	. . .	63.4	6.8	. . .	37.3	8.3
8. Interviewer depression rating	. . .	1.00	0.86	. . .	0.66	0.66	. . .	1.6	0.66	. . .	1.6	1.0	. . .	5.6	1.1
Female															
Total	39	. . .	. . .	30	. . .	. . .	11	. . .	. . .	23	. . .	. . .	13	. . .	. . .
1. Free from health worry	. . .	13.6	1.2	. . .	10.5	2.4	. . .	7.4	2.8	. . .	11.0	2.1	. . .	7.9	4.2
2. Energy level	. . .	15.0	2.3	. . .	12.4	2.0	. . .	8.1	2.3	. . .	9.3	2.5	. . .	6.5	2.3
3. Satisfying, interesting life	. . .	7.7	1.3	. . .	6.4	1.9	. . .	6.2	1.1	. . .	4.5	1.6	. . .	2.4	1.3
4. Cheerful versus depressed mood	. . .	19.6	2.7	. . .	18.0	2.6	. . .	17.8	1.5	. . .	12.7	2.0	. . .	7.2	2.5
5. Relaxed versus tense, anxious	. . .	18.9	2.3	. . .	16.0	2.6	. . .	13.8	3.1	. . .	9.0	2.8	. . .	7.8	3.3
6. Emotional-behavioral control	. . .	13.1	1.1	. . .	12.7	1.0	. . .	9.8	2.1	. . .	8.8	1.7	. . .	6.4	2.0
7. Total GWB	. . .	88.1	6.7	. . .	75.9	5.4	. . .	63.1	3.7	. . .	55.3	5.2	. . .	38.1	6.4
8. Interviewer depression rating	. . .	0.92	1.1	. . .	0.73	0.83	. . .	1.3	1.5	. . .	2.0	0.83	. . .	3.2	1.9

NOTES: n = number of students; $\overline{X}$ = mean; SD = standard deviation.

APPENDIX

CONTENTS

INTEREST INQUIRY AND DEBRIEFING

PSYCHOLOGY RESEARCH - 1020

Anyone wishing to participate in a program dealing with testing and/or treatment of psychological problems (e.g., depression, anxiety) may sign up for any day Monday through Thursday between 8:30 A.M. and 2:30 P.M. Each session must consist of a two hour block of time. Experimental credit will be given for your participation, with further appointments and credit optional. Your participation is voluntary, of course. We guarantee any information you provide will be kept strictly confidential through an elaborate numerical system. Due to the limited size of the project everyone cannot be accepted for consideration.

If you are interested in this project, print your name, address, phone number, hours you can be reached at that phone number, and the day and hours you will participate. Be certain to include this information below and on the attached 4 x 6 card.

If none of the times listed above are suitable, enter in days and times that you would like to participate; you will be contacted and an appointment will be made.

NAME_____

ADDRESS_____

PHONE_____ HOURS YOU CAN BE REACHED_____

DAY AND TWO HOUR BLOCK OF TIME _____

Please report to Sandburg W1020 at the time you indicated above. Keep this sheet and give the filled out 4 x 6 card to the assistant.

Thank you for your cooperation.

A. F. Fazio

THANK-YOU LETTER

UWM THE UNIVERSITY OF WISCONSIN—MILWAUKEE / MILWAUKEE, WISCONSIN 53201

DEPARTMENT OF PSYCHOLOGY
PHONE: (414) 963-4746

June 29, 1973

Dear Participant:

Thank you very much for your participation in our project dealing with psychological testing (in Sandburg Tower West 1020). All participants were requested to return for additional testing -- not because anyone was "different," but because we were interested in many kinds of tests.

In general, our testing permitted us to establish norms for these tests and to estimate which tests correlated with which other tests. The norms are described as having been obtained from "normal college students." Of course, all the data are anonymous and identification lists are destroyed after the last testing contact.

If this experience has disappointed you regarding "psychological testing" or "clinical psychology" or "counseling," please be advised that not all testing programs or counseling services are conducted in the same manner.

In no case was any test or other procedure used which would have any negative consequence - - other than to bore you! Hopefully, you had an opportunity to see what psychological tests, some used nationally, are like.

If you have any additional questions, please contact me at 963-4710.

Thank you, again, very much for your cooperation and interest.

Sincerely,

Anthony F. Fazio, Ph.D.
Associate Professor

31

ASSURANCE OF CONFIDENTIALITY STATEMENT
AND AUTHORIZATION FOR RELEASE OF ACADEMIC RECORDS

ASSURANCE OF CONFIDENTIALITY STATEMENT

I understand that all information which would permit identification of the individual will be held strictly confidential, will be used only by persons engaged in and for the purposes of the survey, and will not be disclosed or released to others for any other purposes.

Signature_____ Date _____

AUTHORIZATION FOR RELEASE OF ACADEMIC RECORDS

I authorize release of my academic records (e.g., grade point average, courses dropped, honors seminars) for use by Dr. Fazio in this particular survey, and I understand that these records will not be used for any other purpose and will be kept strictly confidential.

Signature _____ Date _____

Dr. A. F. Fazio

PSYCHIATRIC SYMPTOMS SCALE (PSS)

Please answer each item with respect to its being True or False for you during the present or past month. (Score: number marked True).

Depression Scale (7 items)

5. You sometimes can't help wondering if anything is worthwhile anymore.

13. Nothing ever turns out for you the way you want it to.

17. You have had periods of days, weeks or months when you couldn't take care of things because you couldn't "get going."

24. Most of the time you wish you were dead.

25. You have periods of feeling blue or depressed that interfere with your daily activities.

26. In general, would you say that most of the time you were in very low spirits.

39. Do you feel somewhat apart or alone even among friends.

Anxiety Scale (10 items)

1. Are you ever bothered by nervousness, i.e., by being irritable, fidgety or tense--would you say often.

3. You are worried about sex matters.

4. You have personal worries that get you down physically, i.e., make you physically ill.

7. You have periods of such great restlessness that you cannot sit long in a chair.

8. You feel anxiety about something or someone almost all of the time.

22. Do you ever have any trouble in getting to sleep or staying asleep-- would you say often.

33. You have special thoughts that keep bothering you.

34. You have special fears that keep bothering you.

44. You have often taken sleeping pills or other drugs to calm your nerves.

45. Are you the worrying type--you know, a worrier.

GENERAL WELL-BEING SCHEDULE (GWB)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
HEALTH SERVICES AND MENTAL HEALTH ADMINISTRATION
NATIONAL CENTER FOR HEALTH STATISTICS
HEALTH AND NUTRITION EXAMINATION SURVEY

GENERAL WELL-BEING

a. Name (Last, first, middle)	b. Deck No.	c. Sample No.	d. Sex	e. Age
	171	_ _ _ _ _	1 ☐ Male 2 ☐ Female	_ _

READ — This section of the examination contains questions about how you feel and how things have been going with you. For each question, mark (X) the answer which best applies to you.

1. How have you been feeling in general? (DURING THE PAST MONTH)

1. (001)
1 ☐ In excellent spirits
2 ☐ In very good spirits
3 ☐ In good spirits mostly
4 ☐ I have been up and down in spirits a lot
5 ☐ In low spirits mostly
6 ☐ In very low spirits

2. Have you been bothered by nervousness or your "nerves"? (DURING THE PAST MONTH)

2. (002)
1 ☐ Extremely so -- to the point where I could not work or take care of things
2 ☐ Very much so
3 ☐ Quite a bit
4 ☐ Some -- enough to bother me
5 ☐ A little
6 ☐ Not at all

3. Have you been in firm control of your behavior, thoughts, emotions OR feelings? (DURING THE PAST MONTH)

3. (003)
1 ☐ Yes, definitely so
2 ☐ Yes, for the most part
3 ☐ Generally so
4 ☐ Not too well
5 ☐ No, and I am somewhat disturbed
6 ☐ No, and I am very disturbed

4. Have you felt so sad, discouraged, hopeless, or had so many problems that you wondered if anything was worthwhile? (DURING THE PAST MONTH)

4. (004)
1 ☐ Extremely so -- to the point that I have just about given up
2 ☐ Very much so
3 ☐ Quite a bit
4 ☐ Some - - enough to bother me
5 ☐ A little bit
6 ☐ Not at all

5. Have you been under or felt you were under any strain, stress, or pressure? (DURING THE PAST MONTH)

5. (005)
1 ☐ Yes -- almost more than I could bear or stand
2 ☐ Yes -- quite a bit of pressure
3 ☐ Yes -- some - more than usual
4 ☐ Yes -- some - but about usual
5 ☐ Yes - a little
6 ☐ Not at all

6. How happy, satisfied, or pleased have you been with your personal life? *(DURING THE PAST MONTH)*	6. (006) 1 ☐ Extremely happy — could not have been more satisfied or pleased 2 ☐ Very happy 3 ☐ Fairly happy 4 ☐ Satisfied -- pleased 5 ☐ Somewhat dissatisfied 6 ☐ Very dissatisfied
7. Have you had any reason to wonder if you were losing your mind, or losing control over the way you act, talk, think, feel, or of your memory? *(DURING THE PAST MONTH)*	7. (007) 1 ☐ Not at all 2 ☐ Only a little 3 ☐ Some -- but not enough to be concerned or worried about 4 ☐ Some and I have been a little concerned 5 ☐ Some and I am quite concerned 6 ☐ Yes, very much so and I am very concerned
8. Have you been anxious, worried, or upset? *(DURING THE PAST MONTH)*	8. (008) 1 ☐ Extremely so -- to the point of being sick or almost sick 2 ☐ Very much so 3 ☐ Quite a bit 4 ☐ Some -- enough to bother me 5 ☐ A little bit 6 ☐ Not at all
9. Have you been waking up fresh and rested? *(DURING THE PAST MONTH)*	9. (009) 1 ☐ Every day 2 ☐ Most every day 3 ☐ Fairly often 4 ☐ Less than half the time 5 ☐ Rarely 6 ☐ None of the time
10. Have you been bothered by any illness, bodily disorder, pains, or fears about your health? *(DURING THE PAST MONTH)*	10. (010) 1 ☐ All the time 2 ☐ Most of the time 3 ☐ A good bit of the time 4 ☐ Some of the time 5 ☐ A little of the time 6 ☐ None of the time
11. Has your daily life been full of things that were interesting to you? *(DURING THE PAST MONTH)*	11. (011) 1 ☐ All the time 2 ☐ Most of the time 3 ☐ A good bit of the time 4 ☐ Some of the time 5 ☐ A little of the time 6 ☐ None of the time
12. Have you felt down-hearted and blue? *(DURING THE PAST MONTH)*	12. (012) 1 ☐ All of the time 2 ☐ Most of the time 3 ☐ A good bit of the time 4 ☐ Some of the time 5 ☐ A little of the time 6 ☐ None of the time

35

13. Have you been feeling emotionally stable and sure of yourself? *(DURING THE PAST MONTH)*	13.	(013) 1 ☐ All of the time 2 ☐ Most of the time 3 ☐ A good bit of the time 4 ☐ Some of the time 5 ☐ A little of the time 6 ☐ None of the time
14. Have you felt tired, worn out, used-up, or exhausted? *(DURING THE PAST MONTH)*	14.	(014) 1 ☐ All of the time 2 ☐ Most of the time 3 ☐ A good bit of the time 4 ☐ Some of the time 5 ☐ A little of the time 6 ☐ None of the time

For each of the four scales below, note that the words at each end of the 0 to 10 scale describe opposite feelings. Circle any number along the bar which seems closest to how you have generally felt **DURING THE PAST MONTH.**

15. How concerned or worried about your **HEALTH** have you been? *(DURING THE PAST MONTH)*

15. (015)

0 1 2 3 4 5 6 7 8 9 10

Not concerned at all — Very concerned

16. How **RELAXED** or **TENSE** have you been? *(DURING THE PAST MONTH)*

16. (016)

0 1 2 3 4 5 6 7 8 9 10

Very relaxed — Very tense

17. How much **ENERGY, PEP, VITALITY** have you felt? *(DURING THE PAST MONTH)*

17. (017)

0 1 2 3 4 5 6 7 8 9 10

No energy **AT ALL,** listless — Very **ENERGETIC,** dynamic

18. How **DEPRESSED** or **CHEERFUL** have you been? *(DURING THE PAST MONTH)*

18. (018)

0 1 2 3 4 5 6 7 8 9 10

Very depressed — Very cheerful

19. Have you had severe enough personal, emotional, behavior, or mental problems that you felt you needed help *DURING THE PAST YEAR?*	19.	(019) 1 ☐ Yes, and I did seek professional help 2 ☐ Yes, but I did not seek professional help 3 ☐ I have had (or have now) severe personal problems, but have not felt I needed professional help 4 ☐ I have had very few personal problems of any serious concern 5 ☐ I have not been bothered at all by personal problems during the past year

20. Have you ever felt that you were going to have, or were close to having, a nervous breakdown?	20.	(020) 1 ☐ Yes -- during the past year 2 ☐ Yes -- more than a year ago 3 ☐ No
21. Have you ever had a nervous breakdown?	21.	(021) 1 ☐ Yes -- during the past year 2 ☐ Yes -- more than a year ago 3 ☐ No
22. Have you ever been a patient (or outpatient) at a mental hospital, a mental health ward of a hospital, or a mental health clinic, for any personal, emotional, behavior, or mental problem.'	22.	(022) 1 ☐ Yes -- during the past year 2 ☐ Yes -- more than a year ago 3 ☐ No
23. Have you ever seen a psychiatrist, psychologist, or psychoanalyst about any personal, emotional, behavior, or mental problem concerning yourself?	23.	(023) 1 ☐ Yes -- during the past year 2 ☐ Yes -- more than a year ago 3 ☐ No

24. Have you talked with or had any connection with any of the following about some personal, emotional, behavior, mental problem, worries, or "nerves" CONCERNING YOURSELF *DURING THE PAST YEAR?*		
a. Regular medical doctor (except for definite physical conditions or routine check-ups)	24a.	(024) 1 ☐ Yes 2 ☐ No
b. Brain or nerve specialist	b.	(025) 1 ☐ Yes 2 ☐ No
c. Nurse (except for routine medical conditions)	c.	(026) 1 ☐ Yes 2 ☐ No
d. Lawyer (except for routine legal services)	d.	(027) 1 ☐ Yes 2 ☐ No
e. Police (except for simple traffic violations)	e.	(028) 1 ☐ Yes 2 ☐ No
f. Clergyman, minister, priest, rabbi, etc.	f.	(029) 1 ☐ Yes 2 ☐ No
g. Marriage Counselor	g.	(030) 1 ☐ Yes 2 ☐ No
h. Social Worker	h.	(031) 1 ☐ Yes 2 ☐ No
i. Other formal assistance:	i.	(032) 1 ☐ Yes — What kind? _____ _____ 2 ☐ No
25. Do you discuss your problems with any members of your family or friends?	25.	(033) 1 ☐ Yes - and it helps a lot 2 ☐ Yes - and it helps some · 3 ☐ Yes - but it does not help at all 4 ☐ No - I do not have anyone I can talk with about my problems 5 ☐ No - no one cares to hear about my problems 6 ☐ No - I do not care to talk about my problems with anyone 7 ☐ No - I do not have any problems

GENERAL WELL-BEING CASE RECORD SUMMARY SHEET

NAME   (Last,   First,   Middle)

Sample No. _____

Sex: M   F   Age: _____
       (1)   (2)

ADJUSTMENT INDICATORS

Item	Description	Scoring
1.	Good spirits	* 1 2 3 4 5 6 ** 5 4 3 2 1 0
2.	Nervousness	1 2 3 4 5 6 0 1 2 3 4 5
3.	Firm control of behavior, emotions	1 2 3 4 5 6 5 4 3 2 1 0
4.	Sad, discouraged, hopeless	1 2 3 4 5 6 0 1 2 3 4 5
5.	Stress, strain, pressure	1 2 3 4 5 6 0 1 2 3 4 5
6.	Happy, satisfied with life	1 2 3 4 5 6 5 4 3 2 1 0
7.	Afraid losing mind, or loss of control	1 2 3 4 5 6 5 4 3 2 1 0
8.	Anxious, worried, upset	1 2 3 4 5 6 0 1 2 3 4 5
9.	Waking fresh, rested	1 2 3 4 5 6 5 4 3 2 1 0
10.	Bothered by bodily disorders	1 2 3 4 5 6 0 1 2 3 4 5
11.	Interesting daily life	1 2 3 4 5 6 5 4 3 2 1 0
12.	Downhearted, blue	1 2 3 4 5 6 0 1 2 3 4 5
13.	Emotionally stable, sure of self	1 2 3 4 5 6 5 4 3 2 1 0
14.	Feeling tired, wornout	1 2 3 4 5 6 0 1 2 3 4 5

RATING SCALES

Item	Description	Scoring
15.	Health concern, worry	0 1 2 3 4 5 6 7 8 9 10 10 9 8 7 6 5 4 3 2 1 0
16.	Relaxed-Tense	0 1 2 3 4 5 6 7 8 9 10 10 9 8 7 6 5 4 3 2 1 0
17.	Energy level	0 1 2 3 4 5 6 7 8 9 10
18.	Depressed-Cheerful	0 1 2 3 4 5 6 7 8 9 10

Adjustment Factors

Columns:
(1) Freedom from health concern, worry, distress
(2) Energy level
(3) Satisfying, interesting life
(4) Cheerful vs. depressed mood
(5) Relaxed vs. tense, anxious
(6) Emotional-behavioral control

Sum of sub-scales

(1)   (2)   (3)   (4)   (5)   (6)

Total Adjustment _____

* - actual response
** - coded values

NOTE: High scores indicative of good or positive adjustment

SITUATIONAL—BEHAVIORAL INDICATORS

Criterion Variables

19.	Psychologic Problems	1 2 3 4 5
20.	Felt near nervous breakdown	1 2 3
21.	Had nervous breakdown	1 2 3
22.	Clinical patient	1 2 3
23.	Psychologic attn.	1 2 3
24.	Other contacts reflecting psych. problems:	Yes No

		Yes	No
a.	Regular M.D.	1	2
b.	Brain-nerve spec.	1	2
c.	Nurse	1	2
d.	Lawyer	1	2
e.	Police	1	2
f.	Clergy	1	2
g.	Marriage Counselor	1	2
h.	Social Worker	1	2
i.	Other formal contact	1	2

25. *Social-Emotional Support*   Recode

1.	Yes-helps a lot	6
2.	Yes-helps some	4
3.	Yes-but no help	1
4.	No-have no one	2
5.	No-no one cares	3
6.	No-do not care to talk	5
7.	No-do not have problems	7

Benignness of life situation

Problem indicator behavior

38

GROUP 2 SUBJECT INTERVIEW FORM

Good morning (afternoon) . . . . . how are you today? (Pause)

I'd like to thank you for coming and participating in this project. (Pause)
Before I begin, I'd like to read to you this statement of confidentiality. (Read)
If you understand and agree to this, please sign the statement. Thank you.

Sex   1 = M   2 = F

1.   What is your present age and year in school?

    Age: (actual age scored)

    Year: 1 2 3 4

2.   From what kind of school did you graduate:

    Public (1)   ; Parochial (2)   ; Private (3)

3.   How many credit hours are you taking this semester?_____

4.   Are you presently employed? If so, how many hours per week (on the average)
    do you work?

    Employed: 1 = Yes   2 = No

    Number of hours:_____

5.   What is the source of support for your education?

6.   Do you consider yourself to be a religious person? (If so, what is your
    religion?) How strong are your beliefs?

    Religion:_____

    Background:_____

    Strength:_____

7.   What is your marital status?

    Married_____ Single_____ Divorced _____ Separated_____ Widowed_____

8.   Are you satisfied with this status? If not, why?

    (If married) How many children do you have?_____

9. (If single) Do you have a girlfriend (boyfriend)?_____

10. On the average, how often do you see this person per week?_____

11. Are you satisfied with the arrangement? If not, why?

    2 = Yes   1 = No

12. What are your present living arrangements? (at home with parents, dorm, etc.?)

13. Do you like it that way? If not, why?

    2 = Yes   1 = No

14. How well do you get along with your mother?

15. How well do you get along with your father?

16. How well do you get along with your brothers and sisters? (If badly with anyone - ask: Can you please explain this more fully?)

17. Are you satisfied with these relationships? If not, why?

18. Are you presently taking any medication? If so, what type and for what reason?

    1 = No   2 = Antidepressant

19. Was this medication prescribed by a physician?

40

20. Are you taking any street drugs? If so, what type and how often?

21. Have you ever received any psychological treatment? If so, when, for how long, and for what reasons?

    2 = No   1 = Yes

22. Would you say that you are making satisfactory progress toward your future goals? If not, why?

    2 = Yes   1 = No

23. Could you please describe one positive event in your life that you're presently conscious of; a pleasant condition or circumstance that you're happy about. How positive? On a scale from 0 (least positive) to 20 (more positive).

24. Please describe a negative event; an unpleasant condition or circumstance that you find discouraging or uncomfortable. How negative? On a scale from 0 (least stressful) to 20 (more stressful).

25. As you see yourself, what are some of your weak personality traits? What things about yourself might cause you trouble in coping with your environment?

26. Now please list some of your strong personality traits: Things about yourself that benefit you in your daily life.

27. What circumstances (i.e., external events) do you feel interfere or act as obstacles towards obtaining satisfaction in your life?

28. Do you have any problems which seem to interfere with your present life, nagging or persistent problems which seem to occupy an annoyingly large amount of your thought-time?

    a. How does this concern interfere? (loss of sleep, preoccupied, can't eat, etc.)

    b. Can you estimate how many hours per week you are bothered by this problem?

c.   To what extent has this problem interfered with your life? (forced to drop classes, etc.) Try to rate it from 0 (not at all) to 20 (interferes extensively).

29. What other things may be of concern to you at this time?

30. Would you like to talk to someone free of charge about your concerns?

If yes: O.K. (fine). However, because of the large number of people being interviewed, we cannot guarantee that all individuals will be able to be seen. If we are able to include you, you will be contacted most likely in the next couple of weeks. Until then, thank you very much for your participation in the project, thus far.

If no: Thank you very much for your participation in this project.

THERAPIST RATING

The depression rating scale ranges from 0-10. Examples of some classification criterion are below:

0- Person seems pleasant and satisfied with his or her life at the present time.

1- Person is neither happy or depressed. This is the neutral category.

2- Person shows concern with his or her problems and is slightly depressed.

3-

4-

5- Person appears unhappy and is distressed with his or her life problems.

6-

7-

8- Person explicitly communicates distress and a desire for assistance.

9-

10- Person has a hopeless, helpless attitude and extemporaneously displays

    extreme distress and shows no insight as to how he or she can deal with

    his or her problems.

Persons who exhibit behavior more severe than this can be given a higher score.

ZUNG SELF-RATING DEPRESSION SCALE (SDS)

Please answer these items as they pertain to you now.

		Response options and response values*			
		A little of the Time	Some of the Time	Good part of the Time	Most of the Time
1.	I feel down-hearted and blue.	1	2	3	4
2.	Morning is when I feel best.	4	3	2	1
3.	I have crying spells or feel like it.	1	2	3	4
4.	I have trouble sleeping at night.	1	2	3	4
5.	I eat as much as I used to.	4	3	2	1
6.	I still enjoy sex.	4	3	2	1
7.	I notice that I am losing weight.	1	2	3	4
8.	I have trouble with constipation.	1	2	3	4
9.	My heart beats faster than usual.	1	2	3	4
10.	I get tired for no reason.	1	2	3	4
11.	My mind is as clear as it used to be.	4	3	2	1
12.	I find it easy to do things I used to.	4	3	2	1
13.	I am restless and can't keep still.	1	2	3	4
14.	I feel hopeful about the future.	4	3	2	1
15.	I am more irritable than usual.	1	2	3	4
16.	I find it easy to make decisions.	4	3	2	1
17.	I feel that I am useful and needed.	4	3	2	1
18.	My life is pretty full.	4	3	2	1
19.	I feel that others would be better off if I were dead.	1	2	3	4
20.	I still enjoy the things I used to.	4	3	2	1

*The sum of these values are converted to a 25-100 score scale by dividing the raw score values by .80.

COLLEGE HEALTH QUESTIONNAIRE ITEMS (CHQ)

"Lately" or recently refers to the past six months; "past" more than six months. Read the questions closely and literally notice modifying words. (Item response score values are shown for each item as numbered.)

Current Depression (7 items)

4. How has your mood been recently?
   1. quite elated
   2. happier than usual
   3. average
   4. somewhat low
   5. quite low

10. Compared to usual, when you wake up recently, are you able to face the day or do you have to push yourself to get started?
    4. push a lot
    3. push a little
    2. no trouble getting started
    1. get started much more easily than usual

27. Have you maintained your normal social interest and activities recently, or have you avoided being with people (not counting times when you wanted to study)?
    4. definitely avoided people
    3. somewhat avoided people
    2. about the same as always
    1. much easier to be with people than usual

38. Have you recently felt that you have let either your parents, yourself, or others down in a major way?
    2. yes
    1. no

59. How does the future look to you now?
    5. really black
    4. a little bad
    3. about average
    2. better than usual
    1. fabulous

61. Compared to usual how has your energy been recently?
    1. really great--more than I need!
    2. good--about average
    3. somewhat less energy than usual
    4. quite a bit less than usual

68. Have you recently tended to be more critical of yourself than usual?
    3. a lot more
    2. some more
    1. not really

Past Depression (2 items)

22. Have you had periods of feeling more irritable than usual?
    4. frequent periods of irritability lasting two weeks or more
    3. frequent periods lasting a shorter time
    2. occasional periods of irritability lasting two weeks or more
    1. no striking periods of feeling more irritable than usual

60. Has there ever been a period of time when your mood was low, apathetic, or depressed but only for a few days at a time?
    4. often
    3. sometimes
    2. rarely
    1. never

Current and Past Depression Items in Common (12 items)

1. Was there ever a time when you had unusual or severe trouble concentrating on schoolwork?
    1. no
    2. yes, but only in the past
    3. yes, just recently
    4. yes, in the past and recently too

5. Have you had periods when it seemed to take a longer time than usual to fall asleep at night?
    1. no
    2. yes, but only in the past
    3. yes, just recently
    4. yes, in the past and recently too

13. Have you had periods in your life when you had thoughts of harming yourself?
    1. no
    2. yes, but only in the past
    3. yes, just recently
    4. yes, in the past and recently too

15. Have you ever had trouble waking up too early without being able to go back to sleep?
    1. no
    2. yes, but only in the past
    3. yes, just recently
    4. yes, in the past and recently too

17. Have there been periods of more than a day or so in your life when your appetite was unusually poor?
    1. no
    2. yes, but only in the past
    3. yes, just recently
    4. yes, in the past and recently too

26. Have you ever been bothered by your sleep being less refreshing than usual for more than a day or two at a time?
    1. no
    2. yes, but only in the past
    3. yes, just recently
    4. yes, in the past and recently too

30. Have you ever been bothered by periods in your life when you would sleep too much or want to sleep more than usual during the day?
    1. no
    2. yes, but only in the past
    3. yes, just recently
    4. yes, in the past and recently too

39. Have there been times when you felt (even if momentarily) that you might be better off dead?
    1. no
    2. yes, but only in the past
    3. yes, just recently
    4. yes, in the past and recently too

46. Have you had periods in your life when you felt like crying more than usual?
    1. no
    2. yes, but only in the past
    3. yes, just recently
    4. yes, in the past and recently too

48. Have you had periods (lasting two weeks or more) when you felt more tired than usual, no matter how much sleep you were getting?
    1. no
    2. yes, but only in the past
    3. yes, just recently
    4. yes, in the past and recently too

55. If you ever tried to harm yourself physically, when did it happen?
   1. doesn't apply
   2. tried it in the past
   3. tried it just recently
   4. tried it in the past and just recently

63. Have you had periods (lasting more than two weeks) of being low, depressed, down in the dumps, or blue?
   1. no
   2. yes, but only in the past
   3. yes, just recently
   4. yes, in the past and recently too

Anxiety (6 items)

21. Have you felt your heart pounding or beating fast and at the same time fearful, tense, or jittery even when the situation you were in was not a stressful one (as in making a speech, etc.)?
   1. no
   2. yes, but only in the past
   3. yes, just recently
   4. yes, in the past and recently too

25. Do you have marked fears of certain situations like being in a closed place, standing on heights, being in crowds, going outside, or into the dark to such an extent that sometimes it makes you avoid doing things you would otherwise like to do?
   1. no
   2. yes, but only in the past
   3. yes, just recently
   4. yes, in the past and recently too

49. Have you had "attacks" of being "short of breath" or unable to catch your breath, and at the same time felt fearful or jittery?
   1. no
   2. yes, but only in the past
   3. yes, just recently
   4. yes, in the past and recently too

54. Have you had marked feelings of weakness, tiredness, or fatigue when doing even a small amount of exercise?
   1. no
   2. yes, most of my life, but haven't sought medical advice about it
   3. yes, most of my life, and have consulted a doctor about it
   4. yes, occasionally
   5. almost never

56. Are you ever so tense, worried or upset before or during exams that it
    interferes with your performance on the test?
    3.   often
    2.   occasionally
    1.   never

73. Have you had painful or uncomfortable sensations in your chest that make
    you question whether you might have heart trouble or a heart attack?
    1.   no
    2.   yes, but only in the past
    3.   yes, just recently
    4.   yes, in the past and recently too

PERSONAL FEELINGS INVENTORY (PFI)

The Personal Feelings Inventory was presented as a list of true-false questions in which the Depression and Anxiety subscales were mixed. The only instructions to the subject were "Please answer these items as they pertain to you now."

("True" responses scored)

Depression subscale (45 items)

1. I have less interest than usual in things.

2. I have difficulty concentrating.

3. I am often sad or depressed.

5. I feel depressed most of the time.

6. I have trouble giving attention to ordinary routine.

8. I have felt life wasn't worth living.

10. I have difficulty coming to a conclusion or decision.

11. I feel overwhelmed with life.

12. My thoughts dwell on a few troubles.

14. I have kept up very few interests.

15. Little if anything interests me.

17. I spend less time at usual recreational activities.

19. I feel miserable or unhappy.

20. I can't concentrate when reading.

21. I am bothered by feelings of inadequacy.

23. I have too little energy.

24. I can't concentrate on movies or T.V. programs.

26. I tend to depreciate or criticize myself.

28. I don't seem to smile anymore.

29. I enjoy almost nothing.

30. I enjoy doing little if anything.

32. I have had difficulty with my memory lately.

33. I keep losing my train of thought.

35. I think about my death.

37. My thoughts get muddled.

38. I have trouble remembering something I have just read or heard.

39. I seem to be slowed down in thinking.

41. I spend time sitting around or in bed.

42. Recently I've been thinking of ending it all.

44. My memory is impaired.

46. My movements are slowed down.

47. I can't make up my mind.

48. I have thoughts about killing myself.

50. I feel slowed down.

51. I am discouraged about the future.

53. I have lost interest in work.

55. I can't concentrate on what people are saying.

57. I feel worthless.

58. I have little interest in movies or T.V.

59. I spend almost no time at recreation.

61. I feel ill at ease with people in general.

62. My future is bleak.

64. I get angry with myself.

65. I have a diminished appetite.

66. I feel slowed down in my thinking.

Anxiety Subscale (21 items)

4. I have been uneasy or anxious in the past month.

7. I have tried to avoid one or more situations in the past month.

9. I tremble; my hands are shaky; I feel weak at the knees.

13. My hands are sweating and clammy.

16. I feel hot and cold, and blush or get pale readily.

18. I have butterflies or a sinking feeling in my stomach.

22. My heart pounds or flutters when I am uneasy or panicky.

25. I have fear of a particular object or situation.

27. I have a dry or coated mouth.

31. My fears prevent me from participating in some activities.

34. I have dizziness, faintness, and/or giddiness.

36. I have difficulty in getting my breath, and have a choking, tightness in my chest.

40. I have attacks of fear or panic and feel I have to do something to end it.

43. I am uneasy when I go out alone or stay home alone.

45. I avoid going out alone or staying home alone.

49. I am uneasy when in an enclosed space.

52. I am uneasy when in crowds.

54. I avoid being in crowds.

56. I get attacks of sudden fear or panic.

60. I avoid being in an enclosed space.

63. I continually feel afraid of things.

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