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Development of a Values Assessment Instrument for Nursing Students

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DEVELOPMENT OF A VALUES ASSESSMENT INSTRUMENT FOR NURSING STUDENTS

by

Patricia DeGroot

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DEVELOPMENT OF A VALUES ASSESSMENT INSTRUMENT
FOR NURSING STUDENTS

This thesis is approved as a creditable and independent investigation by a candidate for the degree Master of Science, and is acceptable for meeting the thesis requirements for this degree. Acceptance of this thesis does not imply that the conclusions reached by the candidate are necessarily the conclusions of the major department.

Title: DEVELOPMENT OF A VALUES ASSESSMENT INSTRUMENT FOR NURSING STUDENTS

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- X education
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Abstract (approximately 150 words)

The purpose of this study was to develop a valid and reliable tool to assess nursing students' values in the areas of 1) abortion and birthcontrol; 2) care of the terminally ill; and 3) mental illness. Rokeach's Theory of Organization and Change Within Value-Attitude Systems served as the theoretical framework for the study.

The instrument was developed by the researcher through a review of the literature, review of other instruments, and the researcher's experiences. The method of scaling the questionnaire was a six point Likert-type scale.

Junior level nursing students at a private midwestern college were used to test the instrument for reliability. Program TESTAT which gives group data, subscale and overall reliability coefficients was used to establish reliability. A t-test was also done.

The instrument was reviewed for content validity by a panel of experts.

Based on satisfactory alpha reliabilities on each subscale as well as the overall tool, and high agreement on content validity, the researcher concluded the instrument was valid and reliable.

I give my permission to the College of Nursing, SDSU to publish this abstract in a collection of abstracts from master's projects and theses.

Signature

Date December 20, 1983

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Graduate Program
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Definition of Human Subjects

This term describes any individual who may be at risk as a consequence of participation as a subject in research, development, or related activities. Subjects may include patients; outpatients; donors of organs, tissues and services; and normal individuals, including students or others who are placed at risk during training in medical, psychological, sociological, educational, and other types of activities. Of particular concern and meriting special consideration are those subjects in groups with limited civil freedom. These include prisoners and residents of clients of institutions for the mentally ill and mentally retarded. Minors are also of particular concern. The unborn and the dead will be considered subjects only under conditions and to the extent permitted by law and regulation.

The proposed master's research project/thesis titled
DEVELOPMENT OF A VALUES ASSESSMENT INSTRUMENT FOR NURSING STUDENTS

has been discussed regarding whether it involves human subjects. We (advisor and student) have determined that

A. (Check one)

____ Human subjects are not involved because _____

_____

__X__ Human subjects are involved because but not at risk.

_____

B. (Check one)

____ The student will initiate contact with the University Human Subjects Committee and proceed according to established University guidelines.

__X__ The student need not forward his/her proposal to the Human Subjects Committee

Signature: Student

Signature: Project/Thesis Advisor

Date:

Date:

cc: Advisor
Student
Dean of Nursing's Office
Graduate Program Office

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Chapter 1

Introduction to the Problem

This is the study of the development of a valid and reliable tool to assess nursing students' values in three areas: 1) abortion and birth control; 2) care of the terminally ill; and, 3) mental illness. The first chapter includes an introduction, purpose of the study, statement of the problem and significance of the problem. The chapter concludes with a discussion of the theoretical framework and a definition of terms.

Introduction

While employed as a faculty member at a midwestern university, the writer noted that nursing students entered the nursing curriculum with preconceived ideas in relation to ethical dilemmas. Learning how to handle these ethical dilemmas are crucial to the development of the professional nursing role. The researcher believed that a valid and reliable instrument would provide the nursing educator with baseline data on student values.

By measuring the values of groups of individuals, and relating the results to other data concerning the groups, educators can assess the influence of an individual's values on his/her cognitive life. "In the human sciences, a good deal of information can be gathered by direct

questioning of a sample of people who have specified characteristics."(1)

The writer believes that nursing faculty play a key role in influencing the professional and societal values of students. Educators need tools to assess the student's values. Without this information educators are unable to help the students deal with projected dilemmas during their student career and prepare them for clinical practice. A valid and reliable questionnaire would aid the educator to assess where the student is in relation to selected ethical problems or dilemmas.

Purpose of the Study

The purpose of this thesis is the development of a valid and reliable tool which would assess nursing students values in three areas in which ethical dilemmas occur: 1) abortion and birth control; 2) care of the terminally ill; and 3) mental illness.

Statement of the Problem

The problem investigated in this thesis is: To develop a valid and reliable instrument which would assess values of nursing students in the areas of: 1) abortion and birth control, 2) care of the terminally ill; and 3) mental illness.

Significance to Nursing

Personal values evolve from family experiences, ethnic heritage, religious training, geographical location, television and peer group influence. These personal values become part of people without reflection or deliberate choice. People have not thought their values through, consequently they are unclear and inconsistent in their beliefs. They do not know why they believe what they believe.(2)

Nurses are faced with such dilemmas as, the impact of parental decisions not to permit life-saving treatment for defective newborn babies; participation in procedures that will offend personal beliefs; consent to the discontinuance of life-prolonging procedures in terminal illness; the adolescent seeking contraceptives. In dealing with such issues more than just instinct or technical training will be required. Just and appropriate decisions must be based on awareness of moral, ethical and legal principles.

The significance of this study is in its implication for nursing education and practice. If a tool can be constructed that would help in directing didactic education, and one-to-one experiences in values clarification, the researcher believes that fear of decision making in ethical dilemmas could be lessened. It is the educator's responsibility to help foster positive professional attitudes and help the student to clarify his/her own value system. Consequently, preparing the student to deal with ethical

dilemmas.

Theoretical Framework

Rokeach's theory of Organization and Change Within Value-Attitude Systems serves as the theoretical framework for this study. While attitude and value are both widely assumed to be determinants of social behavior, value is a determinant of attitude as well as of behavior. The recent shift of focus from attitude to value comes from the fact that values are a more central, dynamic and economical concept and would allow for more interdisciplinary collaboration to include the areas of education and re-education. Rokeach states that "Value is a more dynamic concept than attitude having a strong motivational component as well as cognitive, affective and behavioral."(3) Values become the framework for this study's tool development.

As conceptualized by Rokeach, human values are based on five assumptions:

1. The total number of values a person possesses is relatively small.

2. All persons possess the same values to different degrees.

3. Values are organized into value systems.

4. Antecedents of human values can be traced to culture, personality, and society and it's institutions.

5. The consequences of human values are manifested in virtually all phenomena.(4)

Values are concerned with "modes of conduct" and "end-states of existence." They are enduring beliefs, that a specific mode of conduct or end-state of existence is personally and socially preferable to alternative modes of conduct or end-states of existence.(5)

A value is "a single belief which transcendentally guides actions and judgments across specific objects and situations and beyond immediate goals to more ultimate end-states of existence."(6)

A person's value system represents a learned organization of rules for making choices, and for resolving conflict between two or more desirable modes of behavior or between two or more terminal states to strive for. Rokeach states:

> "Once a value becomes internalized it becomes, consciously or unconsciously, a standard or criterion for "guiding action, developing and maintaining attitudes toward objects and situations, for justifying one's own and others's actions and attitudes for morally judging self and others and for comparing oneself with others." (7)

A value is a standard employed to influence the values, attitudes and actions of at least some others, for example, children and students.

In conclusion, this researcher has selected this theory of organization and change within a value-attitude system as the theoretical framework in the development of a value tool.

Definition of Terms

Attitude - A package of beliefs consisting of interconnected assertions to the effect that certain things about a specific object or situation are true or false and other things about it are desirable or undesirable.(8)

Belief - Something accepted as true.

Ethics - The study of the general nature or morals and of the specific moral choices to be made by the individual in relationship with others.(9)

Opinion - A viewpoint on a specific issue.

Value - An enduring belief that a specific mode of conduct or end-state of existence is personnaly or socially preferable to an opposite or converse mode of conduct or end-state of existence.(10)

Experts - Persons with a high degree of knowledge in a certain subject who are called upon to judge specific items as to their representativeness regarding what is being measured.

Generic Nursing Student - Students in a baccalaureate nursing program. In this study the term applies to students in their junior year at a private midwestern liberal arts college.

CHAPTER 2

Review of the Literature

This chapter presents a selected review of the literature in the areas of human values, questionnaire development, value scale construction, measurement, reliability and validity.

Values

Values and attitudes are constructs which are used interchangeably in the literature. Attitudes concern feelings about particular social objects,[11] while values are concerned with preferences for life goals and ways of life.[12] This review will be dealing with values.

Studies of values reviewed were diverse in content, ranging from intellectual aspects of life to abstract values in respect to self-attainment.

Definitions of the term value are limited and imprecise. English and English define value as the degree of worth ascribed to an object or activity. "This degree of worth is ascribed by the possessor of the attitude on the basis of instrumentality of the object for the facilitation or inhibition of goal achievement."[13]

Tyler defines a value as an object, activity, or idea that is cherished by an individual which derives its educational significance from its role in directing his

interests, attitudes and satisfactions.[14] Thus, values influence the interests and attitudes of others.

Rokeach, in his studies, defines a value as:

> "an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence...it is a standard that guides and determines action, attitudes toward objects and situations, ideology, presentations of self to others, evaluations, judgments, justifications, comparisons of self with others and attempts to influence others." (15)

According to Anderson, values are beliefs as to what should be desired, what is important or cherished, and what standards of conduct are personally and socially acceptable.[16] Values also influence or guide behavior, interests, attitudes, and satisfactions. They are enduring, remaining stable over long periods of time. As such, they are likely to be more difficult to alter or change than either attitude or interests.[17]

Values relate to affective characteristics in that they are high-intensity feelings. They convey possible directions of wrong or right, acceptable or unacceptable.[18,19,20] According to Anderson, "The targets of values tend to be ideas (e.g., end-states of existence) more frequently than to be objects or activities."[21] Because of their enduring qualities they are human characteristics which can be learned.[22]

Questionnaires

The questionnaire is a device for securing answers to questions by using a form which the respondent fills in himself.[23] With the questionnaire there is the assumption that the respondent will answer truthfully.[24] There are several advantages with the use of questionnaires in research. Questionnaires are largely self-explanatory, easy to complete by the respondent and can be tabulated by machine scoring, key punching, or by hand. The average college student is familiar with the questionnaire format and structure. If a questionnaire is administered to a large group the researcher can be sure that all respondents receive the same questions in the same format at the same time.[25,26]

One of the basic uses of the questionnaire is to point out future trends for further study. Questionnaires will allow the researcher to ask general questions which suggest areas of interest for more intensive study.[27]

A questionnaire that is well worded is also an advantage as it will not contaminate the respondents answer as an oral interview might.[28]

There are disadvantages with the use of the questionnaire. One is the possibility of an inadequate representative response. Literature suggests that at least a 90% response rate is necessary to be representative of the results. A second disadvantage is that written questions must be brief because of the increased chance of

misinterpretation with long complex questions.[29,30]

Researchers state that individuals may be prejudiced against questionnaires either because they receive so many or because they believe the questionnaire method of obtaining data is a disreputable, unscientific method. This suspiciousness is well-grounded as few research methods have been as abused.[31]

Another disadvantage is that there are individuals who read through the entire questionnaire before beginning to answer it. By doing this questions asked later in the tool may influence responses to questions asked at the beginning.[32]

A questionnaire is a scientific instrument for measurement and data collection of particular kinds of data.[33] The questionnaire must be designed according to specifications and with certain goals in mind.

When designing an instrument it is necessary to consider the people who will be asked to respond. All questions should be eye-appealing and easily read. All items and pages should be clearly numbered so the correct sequence is followed. The title of the study should be in bold type on the first page. Brief but clear instructions for completing the form should be at the top of each page. Questions should be constructed so their intent is self-evident and so the individuals will not require supplementary instructions. All directions should be in bold face or

italics.[34]

Items should be grouped into logically coherent sections and the first item of each section should be non-threatening. Introductory questions that are threatening may reduce the likelihood of the subjects completing the questionnaire.[35]

The words of each item of a questionnaire are purposefully placed to communicate certain meanings. The meaning the respondent takes from an item should be nearly the same as that given it by the questionnaire designer.[36] According to Berdie and Anderson, words such as "might," "could" and "should" impart various meanings and should not be used interchangeably, thus causing confusing interpretations of the resultant data.[37] The questionnaire designer should avoid words with different meanings, such as country, population, environment, as well as general adjectives. These words do not convey the same meaning for everyone.[38]

Each statement should be so clearly worded all respondents interpret it the same way. Questions should communicate something specific to the reader using language that is familiar and appropriate.[39] The respondent must also know whether the researcher wishes a factual answer or opinion answer. Each question should address only one piece of information.[40] According to Berdie and Anderson, a difference is likely to exist between what is and what should be. Unless the researcher is precise about which

information is wanted, the respondent can easily confuse the two.(41)

Properties of Values Scales

Two important criterion by which the quality of a measuring tool are evaluated are reliability and validity. Reliability refers to the degree of consistency or accuracy with which an instrument measures an attribute.(42) Validity is the "degree to which an instrument measures what it is supposed to be measuring."(43) Validity depends on reliability in that an instrument cannot be valid unless it is reliable. Consequently, both the reliability and validity may be reduced by conditions that produce errors of measurement, such as response sets and faking.(44)

Reliability. There are three empirical methods of estimating the reliability of a value scale. These are referred to as homogeneity, equivalence and stability.

The first method is homogeneity. This refers to the extent to which an individual's responses to the various items or components of a measuring instrument are consistent.(45) According to Polit and Hungler, "an instrument may be said to be internally consistent or homogenous to the extent that all of its subparts are measuring the same characteristics."(46)

The second method, equivalence, refers to the extent to which "different instruments applied to the same individuals

at the same time, or different investigators using one instrument to measure the same individuals at the same time, yield consistent results."[47]

Thirdly is stability; the area with which this study is concerned. The most common measure of stability is the procedure known as the test-retest method. The questionnaire is administered to the same group of persons at two different times, and the correlation between the two sets of scores is computed.[48] The reliability is defined as a correlation coefficient. If the test is given more than twice, the average of the intercorrelations among the various scores may be taken as the reliability estimate.[49]

The test-retest method has the advantage of holding constant items used in the questionnaire, thus eliminating unreliability due to differences between items. It also has the advantage of requiring only a single scale.[50]

Several disadvantages are encountered with the test-retest method. First, the fact that the individual has been tested once before may influence the second measurement. "The most likely effect is that the individual may remember the specific items and simply respond the same way as on the first administration, thus yielding a spuriously high reliability estimate."[51] Second, transient personal factors may become more intense on the second administration,[52] and, thirdly, the initial measure may affect the second measure by stimulating respondents to change their attitude,

behavior or knowledge.(53) All these effects may be different for each respondent.

Depending upon these disadvantages, the reliability will be lowered. There is no sure way of overcoming these difficulties but as Sellitz, et al. suggests that when there is both the possibility that the initial measure may affect the results of the second measure and the possibility of genuine changes brought about by other factors, the common practice is to try to steer a course between waiting long enough for the effects of the first testing to wear off and not long enough for a significant amount of real change to take place.(54) The theoretically ideal time interval is unknown but most investigators will wait a longer rather than a shorter time period.(55)

Validity. The second important criterion by which an instruments quality is evaluated is its validity. There are four procedures for estimating the validity of instruments. First, construct validity refers to the adequacy of an instrument in measuring the abstract construct of interest.(56) Second, criterion-related validity emphasizes establishing the relationship between the instrument and some other criterion.(57) Thirdly, predictive validity is the correlation between scores on a test and future measures of the status to be predicted,(58) and fourthly, content validity which is concerned with the sampling adequacy of the content area being measured.(59) The latter is most

relevant to a test measuring knowledge in a specific content area. Content validity is the criterion selected for this study.

According to Payne, content validity is demonstrated by showing how well the content of the test samples the class of situations or subject matter about which conclusions are to be drawn.(60) The content validity of a test depends not only on the characteristics of the test itself, but also on the purposes and needs of the user.

The most direct way of obtaining content validity is examination of the instrument by a competent judge. The judge "may not always respond to the items on exactly the same basis as a typical examinee would...but this does not mean that his judgments of what the test as a whole is measuring are completely untrustworthy."(61) It means the judge or expert must be competent and work carefully and his interpretations should be compared with those of other competent judges.(62)

The purpose of reporting content validity is not to convince the researcher that the instrument is valid. It is rather to help the person judge whether or not the instrument is valid for its purposes. The validity of a test is relative to the user and his/her purposes, as well as to the nature of the group on which it is used.(63)

Methods of Summated Ratings

Aiken writes, measurement is the assignment of

numerals to objects or events according to a rule or a set of rules.(64) When an investigator attempts to measure values, numerals are assigned to subjects according to a set of rules that are intended to create an isomosphism, between the subject and the person's value toward the statement in question.(65) Since a value is a hypothetical variable rather than an immediately observable variable, values measurement consists of the assessment of an individuals responses to a given statement. The value assigned to an individual's response to a given item is called an item score, and the number derived from his item scores represents his position on the latent value variable.(66)

Scales are tools for quantitatively measuring the degree to which individuals possess or are characterized by target traits or attributes.(67) The most common form of opinion, attitude and value measurement is the Likert scale, named after social psychologist Rensis Likert. A Likert scale presents the respondent with ten to thirty items which are worded favorably or unfavorably toward some phenomenon and they are asked to indicate their degree of agreement or disagreement with each item. Five to seven response alternatives are typically used. Categories are then scored by assigning values of 7-1 respectively and then reversed for negatively worded items.(68)

With the inclusion of a category labeled "uncertain" or "don't know" some researchers argue that the task becomes

less objectionable to people who cannot make up their minds or have no strong feelings about an issue. Others feel this type of category encourages fence-sitting, or the tendency not to make a commitment.(69)

After the items are administered the responses are scored in a way that "endorsement of positively-worded statement, and non-endorsement of negative worded statements, are assigned a higher score."(70) The interpretation of Likert scores is based upon the distribution sample scores.

Following the review of the literature the researcher developed an instrument using assignment of numerals to responses based on Likert-type scale.

CHAPTER 3

Methodology

This chapter includes the design of the study, the research tool, methods for testing reliability and content validity. The chapter concludes with the limitations of the study.

Design of the Study

The study was designed to develop a valid and reliable tool for assessing selected values in the areas of: 1) abortion and birthcontrol; 2) care of the terminally ill; and 3) mental illness. A researcher designed values questionnaire was administered to the students of a private midwestern liberal arts college at the beginning of their third academic year and repeated at the conclusion of that academic year to assess the reliability of the instrument. Content validity was ascertained by the investigator through the use of content experts. A profile review of content experts is included in Appendix A.

Research Tool

The tool used for this study was developed by the researcher from a review of other instruments, review of the literature and the researcher's personal experiences. Discussions with student nurses reveal their concern over

ethical dilemmas. The use of resuscitative measures for terminally ill patients, caring for abortion patients, truth-telling and fear of being injured are among the situations students have described as creating personal and professional conflicts.

Values about sexuality are complicated. Rights and responsibilities about abortion and birthcontrol are interwoven with values: personal, professional and societal. The key question in many circumstances is whether or not the fetus's value and rights would ever override those of the pregnant woman. Abortion and birthcontrol have become major social health issues and a serious societal health concern. On a personal level it causes religious conflicts for the student.

Students have difficulty coping with the emotional needs of terminally ill clients and their families. The more the nurses are confused about their personal and professional values, the more they will fall back on hospital and medical routines. This deprives the patient of his/her moral, ethical and social needs. With modern technology, it is difficult to strive to keep client's alive at all cost and simultaneously to help them die with dignity.

Students' attitudes toward the mentally ill are a direct reflection of society's negative views of this segment of the population. The stereotypical image of the "mentally insane" person and the fear this causes within

the student can be overwhelming for the student.

The researcher believes awareness of students' values, as well as an understanding of the fears and misconceptions that are caused by lack of knowledge, should be a primary goal of the nursing educator. Consequently, the researcher-developed questionnaire consists of value judgments in three areas: 1) abortion and birthcontrol; 2) care of the terminally ill; and 3) mental illness. A six-point Likert scale was used for assessing values in each of the three areas, with value 6 representing the strongest agreement and value 1 the strongest disagreement. An "undecided at this time" was represented by a 3 response, and a 4 response represented not having "enough information to answer."

The six-point Likert scale was chosen as opposed to the more common 5 and 7 point scales, to force the respondents to make a choice. With the inclusion of the "undecided" and "not enough information to answer" categories the task becomes less objectionable to those who cannot decide or do not have strong feelings. Polit and Hungler state that without such categories the respondent who is undecided due to lack of information would not respond and others might be forced into committing themselves (see Appendix C).[71]

Reliability

Population for Testing Reliability. The population for the study included generic nursing students enrolled in junior level nursing courses at a private midwestern liberal

arts college. Forty-six and 42 generic nursing students respectively comprised the sample for the pre- and post-tests. The decrease in sample size was due to attrition and illness on the day the tool was re-administered. Demographic/ experiential data collected from the subjects included age, race, marital status, number of children, religious preference and attendance, size of the community they were raised in, and past work experience.

Procedure for Data Collection. The following procedure was followed for administration of the questionnaire:

1. Approval from the Human Subjects Committee at South Dakota State University was received.

2. The purpose of the study was explained to the faculty of the department of nursing at a midwestern private liberal arts college.

3. Verbal approval was received from the nursing faculty and the department head received permission from the college provost.

4. The researcher attended the class and explained the purpose of the study to the subjects prior to the administration of the pre-test.

5. The nursing students were informed how the data would be utilized and were assured of anonymity through the pooling of data in a group analysis.

6. The subjects were given an opportunity to ask questions before agreeing to participate in the study.

7. If the subjects chose to participate, a consent form was signed and witnessed by the department head (see Appendix C).

8. The subjects were given a written explanation prior to the pre-test (see Appendix C).

9. During the third week of the fall semester (September 22, 1982) the questionnaire was administered to forty-six subjects (see Appendix C).

10. The questionnaire was re-administered to forty-two subjects at the conclusion of the academic year (May 11, 1983). The same procedure for administration was repeated.

During the eight month interval between the first and second administration of the questionnaire the subjects were all enrolled in integrated nursing courses both classroom and clinical.

Statistical Analysis. To test reliability, program TESTAT, was used for item and group analysis of the pre- and post-tests (see Appendix C).

The pre- and post-test responses were analyzed using the related t-test to measure changes from the time of the pre-test to the time of the post-test. The t-test is designed to determine the difference between two correlated means, and is used when the same subjects are tested in two related situations.

Content Validity

A content validity procedure was implemented. Three

panels consisting of five judges each reviewed a section of the questionnaire with respect to their area of expertise (see Appendix A).

These experts were asked to rank each questionnaire statement on a scale of 1-3, using the following guidelines (see Appendix B):

1 - The nursing student would have difficulty making a value judgment on this statement following one academic year of nursing experiences.

2 - The nursing student could possibly make a value judgment on this statement following one academic year of nursing experience.

3 - The nursing student could easily make a value judgment on this statement following one academic year of nursing experience.

Only those statements rated as 3 or a combination of two's and three's were accepted for the study. Any statements receiving a rate of 1 or any combination of 1 or 2 were rejected.

Limitations of the Study

Limitations of this study include the following:

1. The study utilized a small, non-random sample of baccalaureate nursing students for testing reliability.

2. A pilot study was not conducted to refine the questionnaire.

3. A control group was not utilized.

4. Experts used in evaluating validity were homogenous in background.

5. Selection of values included in the questionnaire were one person (writer) selected.

CHAPTER 4

Presentation of the Data

This chapter includes a description of the population and presentation of the validity and reliability of the instrument.

Characteristics of the Population

The population that was used for reliability testing was composed of junior level students in the baccalaureate nursing program of a private midwestern liberal arts college. Demographic/experiential data was collected to provide a description of the study sample. Table 1 provides a detailed profile of the sample characteristics.

Forty-six and forty-two subjects responded to the pre- and post-tests respectively. Eighty-seven and 78% respectively were between the ages of 18-22. All were caucasian. In the pre-test 83% were single and 11% married as compared to 77% single and 15% married in the post-test. A review of the pre-test characteristics showed 89% did not have children, 65% were Lutheran, 64% were from a rural community or small town, 27% from the city. Characteristics of the subjects responding to the post-test showed 83% were without children, 60% were Lutheran, 63% from a rural community or small town, 27% from a city. Pre-test subjects responded that 81% attended church one or more times per week, with

Table 1

Demographic/Experiential Characteristics of the Sample

Characteristics	Classification	Pre-Test Number of Subjects/ Percent of Sample		Post-Test Number of Subjects/ Percent of Sample	
Age of Respondent	18-22	40	87%	34	80%
	23-Over	6	13%	8	20%
Marital Status	Single	38	83%	32	77%
	Married	5	11%	7	16%
	Widowed	-	-	-	-
	Divorced	3	6%	3	7%
Number of Children	None	40	89%	35	83%
	One or more	6	11%	7	17%
Religious Preference	Lutheran	30	65%	25	60%
	Catholic	3	7%	3	7%
	Other				
Size of Community During High School	Rural	14	32%	14	33%
	Small Town	15	33%	14	33%
	Suburb	4	9%	4	10%
	City	12	27%	10	23%
Church Attendance	One time/week	27	62%	21	50%
	More than one time/week	9	20%	9	22%
	Less than one time/week	8	18%	12	28%
Previous Experience	Nurses Aide (One year or more)	25	54%	25	60%

19% attending less than once per week as compared with the post-test subjects who reported 72% attendance at church more than once a week and 28% less than once a week. Fifty-four percent and fifty percent respectively had one year or more of nurses aide experience.

Based on the characteristics of the sample as described above, the investigator concluded that the subjects were homogenous in regard to background and experiences. The changes in population are not real but are due to the differences in population number from the pre- to the post-tests.

Presentation of the Data

Program TESTAT was used to examine the item responses on the pre- and post-tests. This program computes item analysis, item and group means, sigmas and alphas.

A t-test was also performed to determine the difference between two correlated means if any existed in each area. In reporting the data, Subscale 1 refers to the section of the tool measuring values concerning birthcontrol and abortion. Subscale 2 refers to values concerning care of the terminally ill, and Subscale 3 refers to values concerning mental illness.

Subscale 1: Values Concerning Abortion and Birth-Control. The means of the pre- and post-tests for this subscale were 42.11 and 36.56 respectively. The standard deviation for the pre-test was 11.37 and 10.45 for the

post-test with the standard error of 1.68 and 1.63 on each test. The pooled t-value resulted in 2.36 with 85 degrees of freedom on the F scale. Table 2 provides a summary of this data.

Subscale 2: Values Concerning Care of the Terminally Ill. Table 2 indicates a mean of 35.74 for the pre-test and 33.20 for the mean of the post-tests in this area. Standard deviations of 5.17 and 4.17 respectively and standard error of .76 and .65 a t-value of 2.51 was reported.

Subscale 3: Values Concerning Mental Illness. The means for the pre- and post-tests in this area were 32.72 and 33.46. The standard deviations were 7.65 and 6.59 and the standard error of 1.13 on the pre-test and 1.03 on the post-test. The t-value was -0.48. This data is reported in Table 2.

Subtotal of Subscales. The overall means for the pre- and post-tests were 111.57 and 103.21. The standard deviation was 15.66 on the pre-test and 15.33 on the post-test. Standard error was 2.31 and 2.40 pre- and post-test respectively. A t-value of 2.21 was calculated. This data is summarized in Table 2. The F-value was utilized on scales.

Internal Consistency Reliability Coefficients. In referring to Table 3 the pre-test and post-test subscale and total reliabilities are reported. The pre-test reliability coefficients according to subscales are .77, .34, and .65 with the overall reliability coefficient of .70.

Table 2

Summary Table of Means and t Values for the Three Subscales by Group and Total Group

Subscale	Number of Cases	Mean	S.D.	Standard Error	t-Value
Subscale I: Abortion and Birth Control	46	42.11	11.37	1.68	2.36
	41	36.56	10.46	1.63	
Subscale 2: Care of the Terminally Ill	46	35.74	5.17	0.76	2.51
	41	33.20	4.17	0.65	
Subscale 3: Mental Illness	46	32.71	7.65	1.13	-0.48
	41	33.46	6.59	1.03	
Sum of Subscales	46	110.57	15.66	2.31	2.21
	41	103.22	15.33	2.40	

Table 3

Internal Consistency Reliability Coefficients
by Subscales and Total, Pre- and Post-Tests

	Subscale 1	Subscale 2	Subscale 3	Total
Pre-Test	.77	.34	.65	.70
Post-Test	.78	-0.04	.53	.72

The post-test reliabilities according to subscales were .78, -0.04, and .53 with an overall of .72.

Content Validity

Statements rated as a 3, on the investigator developed tool, or any combination of 2 or 3 were accepted. Any statements receiving a rank of 1 or any combination of 1 or 2 were to be dropped. After the experts returned their judgments on the questionnaire all items found to fit the criteria for inclusion were retained.

CHAPTER 5

Summary, Findings, Implications and Recommendations

This chapter presents a summary of the study, a discussion of the major findings of the study and implications of the research findings. The chapter concludes with recommendations prompted by the study.

Summary of Research Problem and Design

The purpose of this research was: To develop a valid and reliable tool which would assess nursing students values in three areas in which ethical dilemmas occur: 1) abortion and birthcontrol; 2) care of the terminally ill; and 3) mental illness. The literature reviewed included articles on the meaning of value, studies on the development of a questionnaire, scale construction, validity and reliability.

Rokeach's Theory of Organization and Change Within Value-Attitude Systems served as the theoretical framework for the study. Within this framework, each person's values are internally prioritized in a system. Rokeach stated that: a person's total value system may be an end result of all institutional influences that have acted upon that person.(72)

The instrument was developed by the researcher from a review of other instruments, review of the literature, and

the researcher's experiences.

The method of scaling the questionnaire was a six-point Likert-type scale. The program TESTAT was used to test reliability. The t-test was used to determine the difference between means on the pre- and post-tests. Content validity was ascertained through the use of content experts for each of the three areas.

Summary and Discussion of Findings

The pre- and post-test reliability coefficients for subscales 1 and 3 were considered satisfactory. The reliability coefficient for subscale 2 on the pre-test was very low and showed a negative relationship on the post-test. This happens when there are increments in one variable which are associated with decrements in the second variable. This may be due to a relationship between the age of the subjects and experiences with death, strong religious background, or course work throughout the academic year. The overall reliability coefficients for both the pre- and post-test were within the satisfactory areas.

Based on examination by content validity experts all items were accepted for the questionnaire.

The satisfactory reliability coefficients on both the pre- and post-tests and the high ratings for content validity allowed the researcher to conclude that the instrument developed was reliable and valid.

Implications of the Research

The implications of this study are in its use in nursing education. Nursing students have many concerns about ethical aspects of practice. Educators are aware that certain values are reinforced in particular curriculum areas. A goal of nursing education should include helping the student develop an awareness of his/her own values and an understanding of the consequences for patient care for holding particular values. This present instrument could be implemented to assess baseline data on values and design the ethics component of the curriculum to meet their needs.

Secondly, the tool could be utilized as a comparative measure. The values of traditional versus non-traditional students, or of various levels of students could be assessed and compared.

Another use of this tool could be in the comparison of student values at the beginning of their educational program and repeated after the students' educational and clinical courses. This would serve as feedback to educators as to the influence the curriculum has had on values of the student.

Recommendations for Further Study

The researcher offers the following recommendations:

1. The study should be replicated with the following modifications in design: a large, heterogenous sample and a control group for reliability testing.

2. The study should be extended to more than one school for reliability testing.

3. Further tests for reliability should be made, such as internal consistency, equivalence.

4. The content validity experts should be selected from a heterogeneous background.

5. Further refinement of the tool is suggested so that it may become a predictive tool of nursing students values, rather than descriptive.

6. The development of separate instruments for assessing values regarding abortion, birthcontrol, death and mental illness.

ENDNOTES

ENDNOTES

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[19]Tyler, loc. cit.

[20]Rokeach, loc. cit.

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[23]Douglas R. Berdie and John F. Anderson, Questionnaires: Design and Use (Metuchen, New Jersey: Scarecrow Press, Inc., 1974), p. 11.

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[25]Ibid., pp. 18-20.

[26]Polit and Hungler, op. cit., pp. 325-330.

[27]Berdie and Anderson, op. cit., p. 20.

[28]Ibid., p. 18.

[29]Ibid., pp. 20-21.

[30]Polit and Hungler, loc. cit.

[31]Berdie and Anderson, op. cit., p. 21.

[32]Ibid., p. 22.

[33]Ibid., p. 25.

[34]Ibid., p. 35.

[35]Ibid.

[36]Melvin N. Freed, "In Quest of Better Questionnaires," Personnel and Guidance Journal, 43 (1964), 187.

[37]Berdie and Anderson, op. cit., p. 36.

[38]Ibid., p. 42

[39]Ibid.

[40]Ibid.

[41]Ibid.

[42]Polit and Hungler, op. cit., p. 445.

[43]Ibid.

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[47]Giovannetti, op. cit., p. 157.

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[50]Ibid.

[51]Giovannetti, op. cit., p. 155.

[52]Ibid.

[53]Ibid.

[54]G. Sellitz, L.S. Wrightsman and S.W. Cook, Research Methods in Social Relations (New York: Holt, Rinehart and Winston, 1976), p. 181.

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APPENDIX A

DESCRIPTION OF THE EXPERTS

Content validity was judged by a panel of five experts from each value area:

Subscale 1: Values Concerning Abortion and Birth Control

The experts in this area were five educators in a baccalaureate nursing program. The five have previous nursing experience in Maternal-Child Nursing. All hold a master's degree in nursing.

Subscale 2: Values Concerning Care of the Terminally Ill

Three of the five experts reviewing this section of the instrument were educators with previous clinical experience in general medical-surgical nursing. The fourth expert is a former nurse educator who is presently involved with community education and illness prevention programs. These four experts hold a master's degree in nursing. The fifth expert is a doctorally prepared health educator with a special interest in death and dying.

Subscale 3: Values Concerning Mental Illness

The experts in this area are nurses with various levels of education and experience. Two of the experts have masters degrees in nursing and teach in a baccalaureate nursing program. They have been involved in various types of clinical nursing experiences.

A third expert is presently in a middle-management position on a mental health unit. This expert holds a BA in nursing and is certified in mental health nursing through the ANA Certification Program.

The final two experts hold baccalaureate degrees in nursing, masters degrees in guidance and counseling, and are currently engaged in doctoral study. They have various clinical and nursing educational experiences in their backgrounds.

APPENDIX B

LETTER TO EXPERTS

April 30, 1983

Expert:

Thank you for consenting to review the enclosed statements on (Care of the Terminally Ill; Abortion and Birth Control; Mental Illness) in regard to content validity.

The purpose of my study is to develop a valid and reliable instrument to measure nursing students values in specific areas.

At the beginning of their junior year forty-six nursing students at a private religious institution asked to respond to the enclosed statements. The instrument will be revised based on input regarding content validity and statistical testing for reliability. It will then be readministered to the same students at the end of their junior level nursing experience.

The curriculum is integrated with junior level courses covering the nursing process, nursing crises throughout the life cycle, health assessment of an individual and a community, physical assessment, and a seminar in nursing. Specifically covered in the seminar is nursing research, gerontology, ethics, legalities and professionalism.

Please rank each statement on a scale of 1,2, or 3 using the following guidelines:

1 - The nursing student would be unable to make a value judgment on this item following the nursing experience.

2 - The nursing student possibly could make a value judgment on this item following the nursing experience.

3 - The nursing student probably could make a value judgment on this item following the nursing experience.

Thank you for your time.

Pat DeGroot, RN
604 Appaloosa Trail
Sioux Falls, South Dakota 57103

Enc.

APPENDIX C

RESEARCH TOOL

September 1983

The purpose of this study is to develop a valid and reliable tool to assess the values of nursing students in three specific areas: 1) abortion and birthcontrol; 2) care of the dying; and, 3) mental illness. The plans are to re-administer this questionnaire in the spring of 1983 and again in the spring of 1984.

The results of this questionnaire will be evaluated as a group only, not on an individual basis. The results will be shared with you, the students, your faculty, selected faculty at South Dakota State University, and, possibly used in the following ways: part of a research thesis, publication in a journal, and presentation to various professional groups, or organizations.

Your participation is completely voluntary. You may decide to withdraw at any time. This in no way affects your grade in this course.

I hope that you will see the value of this type of study and decide to participate.

This is being conducted with the approval of your department head and faculty.

Thank you for your cooperation.

Patricia DeGroot, RN
Graduate Student in Nursing
South Dakota State University
Brookings, South Dakota

CONSENT FORM

I agree to participate in this study of Nursing Students Values. I have been informed by Patricia DeGroot of the purpose of this questionnaire and how the results will be used. I am aware that this is totally voluntary and that I may withdraw at any time. I have been assured that the results will be analyzed on a group basis and not individually.

_____ _____

(Signature) (Date)

_____ _____

(Witness) (Date)

The following information is requested in order that correlations can be made in the future. This information will also be used on a group basis, not individually.

Directions: Please answer each question as it relates to you. Place a (✔) in the appropriate space.

AGE:

_____ 18-20
_____ 21-22
_____ 23-25
_____ 25-30
_____ 31-35
_____ 36-Over

RACE:

_____ Caucasian
_____ American Indian
_____ Black
_____ Other

MARITAL STATUS:

_____ Single
_____ Married
_____ Widowed
_____ Divorced

NUMBER OF CHILDREN:

_____ None
_____ One
_____ Two
_____ More

RELIGIOUS PREFERENCE:

_____ Catholic
_____ Jewish
_____ Lutheran
_____ Other

CHURCH ATTENDANCE:

_____ One time a week
_____ More than once a week
_____ Less than once a week
_____ Never

SIZE OF COMMUNITY LIVED IN DURING HIGH SCHOOL:

_____ Rural area (not within limits of a town)
_____ Small town (less than 5,000)
_____ Suburb (5,000 - 19,999)
_____ City (over 20,000)

PREVIOUS EXPERIENCE AS:

_____ Nurses Aide

_____ One year
_____ Two years
_____ Three or more years

_____ Candy Striper

_____ One year
_____ Two years
_____ Three or more years

_____ Other

_____ None

PART I ABORTION AND BIRTH CONTROL

Directions: The following statements reflect ideas and beliefs about abortion and birthcontrol. Rate each statement by circling the score, ranging from 6 to 1, based on the following scale.

6 I strongly agree with the statement
5 I agree but not as strongly
4 I do not have enough information to state an opinion
3 I am undecided at this time
2 I disagree but not as strongly
1 I strongly disagree with the statement

** All statements are preceeded by the phrase "I think"

1.	I am opposed to birth control.	6	5	4	3	2	1
2.	the present recession and associated problems of unemployment makes it more desirable than ever that there be general approval of birth-control.	6	5	4	3	2	1
3.	the practice of birth control is equivalent to murder.	6	5	4	3	2	1
4.	uncontrolled reproduction should be discouraged because it is the cause of many social ills.	6	5	4	3	2	1
5.	it should be possible for a pregnant woman to obtain a legal abortion if the woman's health is seriously endangered by the pregnancy.	6	5	4	3	2	1
6.	it should be possible for a pregnant woman to obtain a legal abortion if she becomes pregnant as a result of rape.	6	5	4	3	2	1
7.	it should be possible for a pregnant woman to obtain a legal abortion if the family has a very low income and cannot afford any more children.	6	5	4	3	2	1
8.	it should be possible for a pregnant woman to obtain a legal abortion if she is not married.	6	5	4	3	2	1
9.	it should be possible for a pregnant woman to obtain a legal abortion if she is married and does not want any more children.	6	5	4	3	2	1

Part I, con't.

10.	it should be possible for a pregnant woman to obtain a legal abortion if there is a chance of serious defects in the baby.	6	5	4	3	2	1
11.	women should not take the health risks involved in birth control.	6	5	4	3	2	1
12.	wide-spread acceptance of birth control is imperative.	6	5	4	3	2	1
13.	abortions are morally wrong and should not be permitted.	6	5	4	3	2	1
14.	birth control pills should be prescribed to adolescents without the parents knowledge.	6	5	4	3	2	1

PART II CARE OF THE TERMINALLY ILL

Directions: The following statements reflect ideas and beliefs about care of the terminally ill. Rate each statement by circling the score, ranging from 6 to 1, based on the following scale.

6 I strongly agree with the statement
5 I agree but not as strongly
4 I do not have enough information to state an opinion
3 I am undecided at this time
2 I disagree but not as strongly
1 I strongly disagree with the statement

** All statements are preceeded by the phrase "I think"

1.	there are a few exceptions, but, in general, most people who are terminally ill are the same.	6	5	4	3	2	1
2.	there is little that can be done for a terminal cancer patient except to see that he/she gets fluids, nourishment, pain medication and is kept clean.	6	5	4	3	2	1
3.	it would be a good thing if terminally ill, pain-ridden patient were put out of their misery.	6	5	4	3	2	1
4	it is a waste of money to do research on meeting the emotional needs of those who have only a short time to live.	6	5	4	3	2	1
5.	that death is not the worst thing that can happen to a person.	6	5	4	3	2	1
6.	that as a patient nears death the nurse should become less involved with him/her.	6	5	4	3	2	1
7.	I am capable of handling the emotional needs of someone who has only a short time to live.	6	5	4	3	2	1
8.	nurses should try to keep patient's minds off their troubles.	6	5	4	3	2	1
9.	that eventhough letting someone talk openly of death is wearing on me, it is worthwhile.	6	5	4	3	2	1
10.	when a patient asks, "I'm dying, aren't I?" it is best to change the subject.	6	5	4	3	2	1

Part II, con't.

11. it is morbid to talk about impending death with a dying child.	6	5	4	3	2	1
12. I would be uncomfortable if I were alone with a dying child at the end.	6	5	4	3	2	1
13. parents need emotional support in order to accept the regressive behavior of their dying child.	6	5	4	3	2	1
14. the nurse should not be part of extra-ordinary life saving measures for the dying child.	6	5	4	3	2	1

PART III MENTAL ILLNESS

Directions: The following statements reflect ideas and beliefs about mental illness. Rate each statement by circling the score, ranging from 6 to 1, based on the following scale.

6 I strongly agree with the statement
5 I agree but not as strongly
4 I do not have enough information to state an opinion
3 I am undecided at this time
2 I disagree but not as strongly
1 I strongly disagree with the statement

** All statements are preceeded by the phrase "I think"

1.	that mental illness may be the result of demon possession.	6	5	4	3	2	1
2.	that mental illness is a punishment for sin.	6	5	4	3	2	1
3.	that personal guilt can be relieved through interpersonal relationships.	6	5	4	3	2	1
4.	that good morality and good mental health are the same.	6	5	4	3	2	1
5.	religion and psychiatry have no basic conflict.	6	5	4	3	2	1
6.	good people do not become depressed.	6	5	4	3	2	1
7.	obligations to others should preceed helping yourself.	6	5	4	3	2	1
8.	the incidence of mental illness is higher in cities with ghettos.	6	5	4	3	2	1
9.	mental illness can be overcome by religious faith and prayer.	6	5	4	3	2	1
10.	once a person is mentally ill he/she will lead a troubled life.	6	5	4	3	2	1
11.	I can tell when someone is mentally ill by their behavior in public.	6	5	4	3	2	1
12.	most psychiatric units have a backward where they hide violent patients.	6	5	4	3	2	1
13.	all that is required of nurses in mental health is custodial care.	6	5	4	3	2	1
14.	most patients on a psychiatric unit have two personalities.	6	5	4	3	2	1

APPENDIX D

TESTAT

TESTAT2

DESCRIPTION: This program runs an item analysis and will score items according to your key (includes reverse directionality if needed). Using subscales that you desire, subtotals will be computed and can be punched onto a separate data card for each subject. Output includes: Means, Sigmas, Alphas, (Reliability Coefficients) choice distributions (optional), and punched output consisting of subscale totals and composite totals (optional).

RESTRICTIONS: 'A' FORMAT MUST BE USED TO READ ID, 'I' FORMAT MUST BE USED FOR TEST ITEMS. DIRECTIONALITY KEY REQUIRES TWO CARDS, 'A' format must be used when inputting 123Ø data.

INPUT: Job Card — This yellow card must be placed on the top of each run. It contains information used for billing purposes, and is not included in the following example.

JCL Card — (2 options)

Option 1 - If you want the print-out on regular computer paper

```
cc = 1-15
// EXEC TESTAT2
```

Option 2 - If you want the print-out on 8 1/2 by 11 white paper, printed on the laser printer (@ 7¢/page) use the following instead of the above.

```
cc = 1-36
// EXEC TESTAT2,OUT='A,DEST=RES667Ø'
```

Card (3) — PROGRAM NAME (Required-may take all 8Ø col.) This is a good place to identify your subscales.

Card (4) — CONTROL CARD (Required)

- 1-5 Number of items (right justify!)
- 6-1Ø Number of subjects (right justify!)
- 11 Data input option
  - Ø: Item punched (use when data is punched on our IBM cards)
  - 1: 1230-cards (use only when using special 1230 cards from the electronic scoring sheets!)
- 12 Printout option
  - 1=print choice distributions as punched (no reversals)
  - Ø=no printing of choice distribution
- 13 Enter number of choices per item if directionality is to be reversed for keyed items. If blank, no directionality key card will be expected
  - (MAX choices = 5 for 123Ø card input)
  - (MAX choices = 9 for IBM card input)

(Use this option for Likert-type scales)

(Use this option for achievement tests)	14	1 will convert choices to 1=right 0=wrong This option is for cognitive tests where one point is awarded for each correct answer. If you are analyzing an attitude scale (Likert type) you will punch a Ø here. The code of 1 here also alerts the program to the need for a RIGHT-WRONG SCORING KEY (see below). A Ø indicates that no correct choice key will be involved.
	15	punch Ø
	16	Constant you want to replace blank items (Ø if no constant is desired). This option would be used if you choose to replace non-response (Ø data) with the 2, 3, 4, 5 etc. found in the "neutral" slot of a true Likert scale.
	17	*Punch option #1: 1=punch cards for subjects, (subscale-totals and total score) By punching a 1 in column 17 the program will generate punched cards with subscale totals in a seven (7) column format. This will allow for ten (1Ø) subscales scores/card. If you do not want to punch cards, or punch this format (see cc 20 below), punch a zero Ø in column 17.
	18-19	Number of subscales (if less than 1Ø, use a zero (Ø) and right justify - i.e. Ø9)
	20	*Punch option #2: 1= punch cards for individual subjects, subscale-totals and total score. By punching a 1 in column 20 the program will generate punched cards with subscale totals in a five (5) column format. This will allow for fifteen (15) scale scores/card. This option also punches card sequence in the event of multiple cards.
Card (5)	FORMAT CARD	(Required)
Card (6)	BLANK CARD	(Required) This blank card was inserted to give additional space for format adjustments. It is actually an extension of the format card and can be used as such if you so desire.
Card 7-K	KEY CARDS	These are all optional depending on your input data. The number and sequence of these KEY CARDS has been determined by your responses on the CONTROL CARD above. If you punched a number in cc 13, the program will expect the reversibility function and two (2) directionality KEY CARDS. If you did not, the program will go directly to the next KEY CARD identified.

TESTAT2
Page 3

Use when Control Card Col. 13 = non-zero

DIRECTIONALITY KEY. The directionality function requires 2 cards - they are: A.-Card: Beginning in Col. 6 Code 1 for reversals in the column corresponding to the item to be reversed, and Ø for the non-reversal items. B.-Card: Beginning in Col. 6 Code the choice matrix in fields of 2.
Example: Col. 1 2 3 4 5 6 7 8 9 1Ø 11 12 13 14 15
Ø 1 Ø 2 Ø 3 Ø 4 Ø 5

RIGHT-WRONG SCORING KEY. (When Control Card Col. 14 = 1). If this key exceeds the length of the first card, continue the key beginning in Col. 6 on card(s) 2, 3 if necessary.
(If Control Card Col. 11 = 1, this Key Card should be a 1230 Card)

SUBSCALE KEY. (When Control Card Col. 18-19 = Non-zero)
Beginning in Col. 1, code subscale number using a two (2) column format (Ø1Ø1Ø2121313 etc.). If this key exceeds the length the first card, continue they key beginning in Col. 1 on cards 2, 3, 4 etc.

* *

D A T A G O E S H E R E

* *

Final Card COMPLETION CARD (Required)
1-2 /*

*If cards are to be punched, be sure to state: "THIS PROGRAM PUNCHES CARDS" on your job card, and include a sufficient number of blank cards for punching.

Taken from Dr. Carl Edeburn, Associate Professor of Education, South Dakota State University, Brookings, South Dakota.