Patient-Technique Orientation, Personality Factors, and Training Effects in Nursing Students

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PATIENT-TECHNIQUE ORIENTATION, PERSONALITY FACTORS, AND TRAINING EFFECTS IN NURSING STUDENTS

A Thesis
Presented to
the Faculty of the Department of Psychology
Western Kentucky University
Bowling Green, Kentucky

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

by

Gerald D. Case

May 1978
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PATIENT-TECHNIQUE ORIENTATION, PERSONALITY FACTORS, AND TRAINING EFFECTS IN NURSING STUDENTS

Recommended May 26, 1978
(Date)

Co-Director of Thesis

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Approved May 1, 1978

Dean of the Graduate College
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The purpose of this study was to determine if nursing students could be differentiated along a patient-technique nursing orientation continuum, and whether there would be a shift in the orientation of student nurses subsequent to participating in a training program for nurses. This study attempted to determine if personality traits could be used as predictors of the patient-technique orientation of the student nurses and if the personality of the student nurses remained stable over one year. Thirty-four student nurses in the two-year associate degree nursing program in a southern regional university were administered the Nursing Pictures Interest Test (NPIT), the Personality Research Form (PRF), and a brief biographical questionnaire. The student nurses were assessed at the beginning of the second semester and at the end of the third semester of the four-semester training program. The results of this study indicated that these nursing students could be differentiated into role orientations along the patient-technique continuum, but that there were no consistent changes in orientation from the pre- to post-testing periods. The results also indicated that the group means for the personality traits were generally stable over time, but that the Aggression and Infrequency scores declined significantly. An increase in Order resulted in a decrease in Impulsivity, and an increase in Autonomy resulted in a
decrease in Succorance. The personality variables appeared to predict orientation, but the usefulness of that apparent predictive power was minimal, due to the small sample size in relation to the number of predictor variables. The results of this study indicate that nursing students can be classified along a continuum of patient-technique orientations and that predictions of orientation type can be made from personality variables. Additional data on the reliability and validity is needed to ascertain the credibility of this instrument in measuring nursing orientation.
Chapter 1

Literature Review

Recent figures indicate the quantity of nurses approaches equity with the demand ("Signs of an end to shortage of nurses," 1972). Little consensus has been found concerning the qualitative characteristics of the "good" or "ideal" nurse or what the specific factors are that contribute to quality performance. Funkhouser (1977), in questioning more than 10,000 members of the nursing staff in both large and small United States and Canadian hospitals, found that nurses overwhelmingly stated patient-directed duties were neglected for administrative duties. The emphasis upon administrative duties at the expense of patient-directed duties may contribute to lower staff morale and reduced nursing efficiency. That is, the administrative duties were not founded upon the technical training or the primary motivation of most of the nurses who responded.

In an investigation of role perceptions, Richards (1972) found there was a discrepancy between the perceptions nurses had of themselves and the perceptions nurses believed their patients had of them. The sample (n=361) was composed of nurses working in hospitals, with approximately equal numbers from diploma, associate degree, and bachelor of science programs. She found that the results of the Professionalization Scale indicated that nurses believed patients viewed ideal nurses as traditional, emotionally responsive, and primarily patient-oriented.
In contrast, the nurses viewed the ideal nurse as being modern, procedurally efficient, and technique-oriented. The patient's concerns with his or her needs and the nurse's focus on procedural techniques may be a reflection of the task demands of the respective roles. Richards suggested when quality of care is the target issue, both perceptions were distortions of actual working roles.

In a related study, Jourard (1971) investigated several psychological characteristics of nursing students (n=55) in a medical school training program. The students were measured before and after a year of clinical training on patient-centeredness, self-disclosure, and selected personality traits. They were rated on both interpersonal competence and grade point average (GPA). Interpersonal competence ratings were based on supervisor evaluations of casework. GPA included objective exam scores, work experience evaluations, and scores on reaction papers. They were also assessed with the Self-Disclosure Questionnaire. Disclosure topics were tastes and interests, attitudes and opinions, and work. The highest scorers on the Self-Disclosure Questionnaire were found to have received the highest ratings in interpersonal competence and GPA. Patient-centeredness was highly associated with high scores on self-disclosure, interpersonal competence, and GPA. That is, Jourard's pioneering work indicated that patient-centeredness was critically linked to the performance (GPA), interpersonal competence, and magnitude of self-disclosure of the student nurses. The implications of his findings bear directly upon the role of the practicing nurse in that the most competent nurses evidently combine technical and interpersonal expertise.
Previous investigations have found that the role of the working nurse may include three components: orientation, personality, and training. The research literature related to each of these areas will be reviewed below.

**Nursing Orientation**

The orientation of the nurse has been conceptualized as varying along a continuum. At one extreme, patient-oriented nurses are conceptualized as having service goals based upon the patients' psychological, sociological, and physiological needs in a "whole person" approach. At the other extreme, technique-oriented nurses are seen as having technical and task-oriented goals of "getting the job done." Patient-oriented nurses, for example, would voluntarily converse with the patient in a casual manner, while technique-oriented nurses would tend to speak formally, and only when the patient opened the conversation. Nurses who possessed mixtures of these extreme characteristics would be classified in intermediate categories on such a continuum (Abdellah, Belaid, Martin, & Matheney, 1960).

The quantity and type of nurses' interactions with patients have been theorized (Dumas, Anderson, and Leonard, 1965) to bear directly upon the psychological reactions of the patients to their illnesses and their treatment. Using experimental and control groups of nurses, they studied the effects of psychological preparation for surgery on 83 gynecology patients. The amount of communication time between patient and nurse was increased for the experimental group and remained the same for the control group. The patients' reactions to such treatment following surgery was measured in terms of the incidence of post-operative vomiting. The reduction of reported vomiting was
significantly associated with the amount of patient-nurse contact when contact was increased beyond the level of the "usual preoperative care." Psychological reactions to nurses' behaviors may, therefore, have important medical consequences.

Further evidence indicates that interactions between nurses and patients may minimize the patients' subjective pain as well as overt physical symptoms such as vomiting. This proposition was investigated by Moss and Meyer (1966). They evaluated experimental (n=25) and control (n=25) groups of patients via an observation checklist and patient questionnaire to reveal information pertaining to anxiety level and the reduction of pain. The measures most highly associated with reduction of moderate pain were specific nurse-patient interactions when the nurse initiated receptive conversation, and the nurse and patient explored aspects of the pain and alternatives to reducing it. The patient then decided on the relief method on the basis of increased and accurate information. Moss and Meyer concluded that the effectiveness of the nurse-patient interaction upon the reduction of moderate pain depended upon the manner in which the interaction was initiated and the involvement of the patients in decision-making behavior.

Personality Factors

Attempts to find constellations of personality traits that are characteristic of nurses are disparate and inconsistent. In their review of over 40 years of work in the area, Hill, Taylor, and Stacey (1963) examined over 300 studies related to the personality of nurses. They noted a generally recognized importance given to personality in nursing education and practice, but generally inconclusive evidence regarding specific personality factors. As examples of such disparity.
the findings of recent studies demonstrate the inconsistencies.

For example, Mauksch (1960) found that nursing students and nurse practitioners had comparable personality profiles. By using the Edwards Personal Preference Schedule (EPPS), he found that both groups related common themes of interpersonal warmth and association (i.e., affiliation, succorance, nurturance scales) and internal controls (i.e., deference, order, blame avoidance scales). These common themes were believed to be stable personality factors. In contrast, Levitt, Lubin, and Zuckerman (1962) reported a distinction between the EPPS profiles of student nurses and working nurses. They examined sophomore nursing students and medical/surgical nurse practitioners. They found that student nurses scored highest on the EPPS scales of affiliation, succorance, and nurturance. Practitioners, however, scored highest on the EPPS scales of deference, order, and endurance.

In a related study, Hoffman (1970) used the Personality Research Form (PRF) to compare 80 freshmen nursing students' mean scores on the 22 scales with the PRF manual's college norms for females. He noted that the nursing students' mean scores differed significantly from the PRF norm means on 12 of those 22 scales. These differences were still within the normal range of functioning. The nursing students scored higher on the scales of harm avoidance, nurturance, order, and desirability. They scored lower on the scales of affiliation, aggression, autonomy, change, defendence, dominance, impulsivity, and understanding.

**Training Effects**

While the personality characteristics of nurses have been extensively investigated and have yielded inconsistent findings, little
systematic program evaluation of the effects of nurses' training has taken place. However, two examples, cited below, show that the few evaluations of training effects that have been conducted have also produced inconsistent findings.

Steine-Freud (1974) tested the popular conception that the nursing student's interest in patients as persons tends to decrease during the process of his or her professional socialization. She administered a written inventory of hypothetical nursing situations to 228 nursing students in two Israeli schools of nursing. A cross-section of practicing nurses judged the validity of the written responses, giving each situation a total score based on the extent of patient-centeredness. She found that patient-centeredness scores on the questionnaire rose with each year in nursing school, suggesting that nursing schools instill attitudes and values considered desirable in professionals. Therefore, this study indicated that technical training and patient-centeredness did increase simultaneously.

In contrast, Bittman (1974) examined the second year class of 71 nursing students in a hospital training program. Ranging in age from 19 to 41 years, the students were examined before and after one year of nursing school to determine: a) if motivational and personality variables could be used to predict student orientation along the patient versus the technique continuum, b) if an orientation change occurred after a year of training, and c) if more than one "type" student existed in personality-motivation terms. He administered the Cattel 16 Personality Factor Questionnaire (16PF), the Motivational Analysis Test (MAT), and the Nursing Pictures Interest Test (NPIT). Following step-wise regression analyses with the NPIT scores as
dependent variables, he found that the personality and motivational variables could not be used to predict the nursing orientation of the students. He did find, however, that a significant number of the subjects changed from a patient- to a technique-orientation over the one-year period. This finding was different from that of Steine-Freud (1974) and one that suggests any changes observed may be program-specific.
Chapter 2

Research Problem

The quality of patient care as it relates to the role of the working nurse involves the complex mixture of technical expertise (Richards, 1972) and the personal interactions between nurses and patients (Funkhouser, 1977). At a time when technical knowledge is exponentially expanding in health fields and patient and professional expectations of care quality are viewed in terms of personal contact, the two areas of expertise relate importantly to health care.

In the past, nurses have been evaluated in order to delineate the characteristics intrinsic among "good" nurses. These evaluations have included examinations of the nursing role orientations, personality traits, and training effects. Little consensus has been found, however, among the different investigations thus far reported. Since it is reasonable to assume that training programs have comprehensive effects upon the ability of nurses to meet their professional demands, additional studies are needed to add clarity to the personal and professional effects of professional training programs. In order to study the effects of the nursing training program on personality traits and nursing orientation, measures of these variables would have to be taken both before and after the student nurse has been sufficiently exposed to both the training and clinical phases of the training program.
Hypotheses

The present investigation examined the relationship between certain personality traits and nursing orientation and changes that occurred after one year of nurses' training in the associate degree program at Western Kentucky University. The hypotheses examined are stated below.

1. It was expected that the student nurses would display different professional role orientations (i.e., patient versus technique orientation).

2. It was expected that the professional role orientation of the student nurses (i.e., patient versus technique orientation) would shift over time away from a patient orientation toward a technique orientation.

3. It was expected that the personality profiles of the student nurses would remain relatively stable over time and that the profiles would vary within the normal range of functioning.

4. It was expected that no combination of personality factors would predict the role orientation of the student nurses.
Chapter 3

Method

Subjects

The entire population, with a few exceptions, of first year nursing students in the Western Kentucky University associate degree nursing program participated in the study. Several student nurses were excluded from the analysis because they missed one or more administrations of the assessment instruments. Furthermore, the few nonwhites and males were also excluded. The 34 participants included white females from 17 to 33 years old. The mean age was 20.2 years, with a modal age of 18 years (n=14). Eight were married; three had children. Prior to the measurement, the mean educational level was 1.2 years of college.

Instruments

The Nursing Pictures Interest Test (NPIT)

The Nursing Pictures Interest Test (Meyer, 1960) was used to assess the students' patient-technique orientations. Part I of this test is designed to provide an assessment of a nurse's role orientation. The test consists of nine sets of three pictures, with each picture depicting work situations. The three types of work situations are: (1) a nurse working alone with a patient, (2) a nurse with a patient, working with a colleague, or (3) a nurse and a colleague working jointly.
in a technical, supervisory, or clerical capacity. Each of the respondents rank orders the three pictures in each of the nine sets in terms of their preference for the work situations depicted. The scoring system classifies nursing orientation into four types:

1. Type I—those who place the highest value on unaided administration of direct patient care,
2. Type II—those who prefer to work with colleagues and patients or alone with patients,
3. Type III—those who prefer to work with colleagues and patients or with colleagues alone, and
4. Type IV—those who prefer the nurse-colleague situation or sharing the patient with the colleague. Type I represents the patient-orientation and Type IV represents the technique-orientation.

No statistical data for reliability or validity are available, although Meyer did demonstrate that the significant stimuli to which people responded were the persons depicted in the pictures. Since the persons in the pictures do vary in their relationships with the patients, it can be inferred that this variation in patient-centeredness is an aspect of the respondents' preferences.

**The Personality Research Form (PRF)**

Jackson's (1974) Personality Research Form--Form A assesses the personality characteristics of individuals. The instrument uses a number of the personality variables originally defined by Henry Murray and redefined by Jackson. Jackson's definitions are shown in Appendix A. The focus of the instrument is on those personality factors most relevant to wide areas of human functioning (Kelley, 1972).

The dichotomous continuum scaling technique is theoretically and psychometrically bipolar (Jackson, 1974). Each scale is designed to measure the need for the personality variable of that scale as well as
the relative need for the opposite personality variable (i.e., a significantly high aggression score might be indicative of a low need for affiliation and/or nurturance as well as a need for aggression).

The bipolar measures of the personality variables are summarized in Appendix B. Half of the items for each scale are written in the direction of one pole of the dimension, with the other half of the items written in the direction of the other pole of the dimension. The Desirability and Infrequency Scales are validity scales.

The 20 scales measuring personality variables are reported to be psychometrically independent, with high internal and longitudinal consistency. The original median reliability is above .92 for the 20 personality scales (Jackson, 1974, p.20) with odd-even reliabilities of .78 and .81 reported (Kelley, 1972). Each of the 22 scales has 16 items yielding a total of 352 items in the instrument.

The PRF is designed for and applicable to a wide range of normal populations. Major norms for the PRF are available (Jackson, 1974) for college students, based on randomly selected students in 31 United States and two Canadian colleges and universities. The institutions were randomly selected for a cross-section of geography, size, and funding diversity. Other norms are available for American and Canadian children through twelfth grade, military enlistees, psychiatric patients, and Canadian nurses.

Training Experiences

The associate degree program for registered nursing (RN) at Western Kentucky University consists of four semesters of training. According to program administrators (Lehmenkuler & Coakley, Note 1), the first semester is one of minimal clinical experience, while the
second, third, and fourth semesters include clinical and training experiences. The first semester involves primarily classroom activities. The second semester involves nine hours per week of clinical experience in maternal and child care services including labor, delivery, newborn, and post-partem activities. The third semester involves 16 hours per week of ward clinical experience in medical, surgical, pediatric, and psychiatric activities. The fourth semester is a continuation of the activities initiated in the third semester.

Procedures

Design

The pre- and post-test measures of personality and role orientation were collected before and after one year of clinical training. The participants were advised that the research was undertaken in a joint effort of the nursing and psychology departments to provide data helpful to the nursing program, and that the individual data would remain confidential.

In regular classroom periods, the subjects were administered role orientation (i.e., NPIT) and personality (i.e., PRF) instruments and a biographical data sheet. The first assessment occurred in the first two weeks of the second semester of the program. The second assessment occurred in the last two weeks of the third semester of the four-semester program.

The PRF was administered first, with self-administered instructions. The NPIT was administered next, using overhead projector overlays of the pictured situations and an individual answer sheet on which to mark choices in response to the NPIT items. The biographical data sheet was completed last.
Scoring and analysis

Scoring of the two instruments followed the standard procedures for each. The NPIT system utilized preference scores based on the type of work situations preferred by the participants (Meyer, 1960, p. 19). The PRF system utilized an overall scoring template from which 22 scale scores were derived for each subject.

Cross-tabulations, correlations, chi square, discriminant analyses, and time-lagged correlations were utilized to analyze the various aspects of the data.

Debriefing

Following completion of data collection and analysis, the student nurses and the administrative staff of the school of nursing were given a copy of the thesis and interpretive feedback.
Chapter 4

Results

As expected, the student nurses displayed different professional role orientations on the patient versus technique continuum. Table 1 illustrates the placement of the student nurses according to their NPIT classifications. The majority of participants were classified as Type I or Type II nurses. These two types represent predominantly patient-oriented work attitudes. The post-test measure showed fewer student nurses in Type I and more in Type II than did the pre-test measure. No student nurses were classified in Type IV on the post-test measure.

The professional role orientation of the student nurses did not change significantly, \( \chi^2(2) = .41, p > .80 \), over time from a patient orientation to a technique orientation. As shown in the cross-classification matrix in Table 2, 13 student nurses remained in their original classifications as Type I or Type II nurses. The other 21 student nurses changed classifications from their earlier classification. Ten were classified as being more patient-oriented and 11 were classified as being more task-oriented on the post-test measure. Most of these changes did not occur in any systematic pattern and were fluctuations between the Type I and Type II classifications. Eight student nurses changed from Type I to Type II; five student nurses changed from Type II to Type I.
Table 1
NPIT Classifications of Student Nurses on Pre- and Post-Test Measures

<table>
<thead>
<tr>
<th>Period</th>
<th>Role Type</th>
<th>I</th>
<th>II</th>
<th>III</th>
<th>IV</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>19 (56%)</td>
<td>10 (29%)</td>
<td>2 (6%)</td>
<td>3 (9%)</td>
</tr>
<tr>
<td>Pre-Test</td>
<td></td>
<td>16 (47%)</td>
<td>14 (41%)</td>
<td>4 (12%)</td>
<td>0 (0%)</td>
</tr>
</tbody>
</table>

Note. Numbers in parentheses indicate the percentage of subjects of each type for that testing period.
Table 2
Cross-Classification of Pre- and Post-Test Nursing Orientation Types

<table>
<thead>
<tr>
<th>Pre-Test Classification of Types</th>
<th>Post-Test Classification of Types</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>I</td>
</tr>
<tr>
<td>I</td>
<td>9</td>
</tr>
<tr>
<td>II</td>
<td>5</td>
</tr>
<tr>
<td>III</td>
<td>1</td>
</tr>
<tr>
<td>IV</td>
<td>1</td>
</tr>
<tr>
<td>TOTAL</td>
<td>16</td>
</tr>
</tbody>
</table>

Heavily-lined cells, on the diagonal, represent the number of students who maintained the same nursing orientation type from pre- to post-testing.
As expected, the pre- to post-test personality profiles remained relatively stable over time, as shown in Figure 1. The PRF group means and correlations for the two measurements are summarized in Table 3. The pre-test and post-test scores on 20 of the scales were highly correlated and did not change drastically over time. The scores on two scales were not stable over time. The mean scores on the post-test measures for the Aggression Scale and the Infrequency Scale were lower, with $t(33) = 12.05, p < .001$, and $t(33) = 2.01, p < .05$ respectively. The decline on the Aggression Scale indicates a reduction in a need for argument; the decline on the Infrequency Scale indicates a reduction in randomness and carelessness. The means for the 22 PRF scales were in general slightly above the PRF female norms (Jackson, 1974), and varied within the normal range of one standard deviation away from the norm means.

Several pairs of the PRF scales were examined using the time-lagged correlation procedure. First, the Order and Impulsivity scales were cross-correlated; the correlations are summarized in Table 4. Comparison of the cross-correlations (i.e., Order pre-test with Impulsivity post-test, $r = -.57$ versus Order post-test with Impulsivity pre-test, $r = -.72$) indicated that the increase in Order observed for the student nurses resulted in a decrease in Impulsivity. The Order and Impulsivity scales were both highly reliable from the pre-test to the post-test measurements, $r's = .78$, with an increase in magnitude of correlations between scales from the pre-test, $r = -.56$, to the post-test, $r = -.74$. Second, the Succorance and Autonomy scales were cross-correlated; the correlations are summarized in Table 5. Comparison of the
Figure 1
Pre- and Post-Test Profiles
of PRF Scales

Standard Scores

Abasement
Achievement
Affiliation
Aggression
Autonomy
Change
Cog. Structure
Defendence
Dominance
Endurance
Exhibition
Harmavoidance
Impulsivity
Nurturance
Order
Play
Sentience
Soc. Recognition
Succorance
Understanding
Infrequency
Desirability
Table 3

Pre- and Post-Test Means and Correlations of PRF Scales

<table>
<thead>
<tr>
<th></th>
<th>Pre Mean</th>
<th>Post Mean</th>
<th>Correlation</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abasement</td>
<td>7.8</td>
<td>7.6</td>
<td>.80</td>
<td>.001</td>
</tr>
<tr>
<td>Achievement</td>
<td>13.2</td>
<td>12.6</td>
<td>.71</td>
<td>.001</td>
</tr>
<tr>
<td>Affiliation</td>
<td>16.3</td>
<td>16.7</td>
<td>.37</td>
<td>.016</td>
</tr>
<tr>
<td>Aggression</td>
<td>8.5</td>
<td>5.5</td>
<td>.12</td>
<td>.249</td>
</tr>
<tr>
<td>Autonomy</td>
<td>5.8</td>
<td>5.4</td>
<td>.47</td>
<td>.003</td>
</tr>
<tr>
<td>Change</td>
<td>10.7</td>
<td>11.1</td>
<td>.67</td>
<td>.001</td>
</tr>
<tr>
<td>Cognitive Structure</td>
<td>13.1</td>
<td>13.3</td>
<td>.82</td>
<td>.001</td>
</tr>
<tr>
<td>Defendence</td>
<td>7.0</td>
<td>7.5</td>
<td>.74</td>
<td>.001</td>
</tr>
<tr>
<td>Dominance</td>
<td>8.3</td>
<td>8.3</td>
<td>.77</td>
<td>.001</td>
</tr>
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<td>Endurance</td>
<td>11.1</td>
<td>12.8</td>
<td>.62</td>
<td>.001</td>
</tr>
<tr>
<td>Exhibition</td>
<td>9.4</td>
<td>9.0</td>
<td>.79</td>
<td>.001</td>
</tr>
<tr>
<td>Harmavoidance</td>
<td>11.4</td>
<td>11.9</td>
<td>.83</td>
<td>.001</td>
</tr>
<tr>
<td>Impulsivity</td>
<td>9.6</td>
<td>10.2</td>
<td>.77</td>
<td>.001</td>
</tr>
<tr>
<td>Nurturance</td>
<td>16.8</td>
<td>17.3</td>
<td>.51</td>
<td>.001</td>
</tr>
<tr>
<td>Order</td>
<td>11.4</td>
<td>11.8</td>
<td>.78</td>
<td>.001</td>
</tr>
<tr>
<td>Play</td>
<td>12.5</td>
<td>12.4</td>
<td>.78</td>
<td>.001</td>
</tr>
<tr>
<td>Sentience</td>
<td>16.6</td>
<td>17.6</td>
<td>.56</td>
<td>.001</td>
</tr>
<tr>
<td>Social Recognition</td>
<td>12.7</td>
<td>12.4</td>
<td>.69</td>
<td>.001</td>
</tr>
<tr>
<td>Succorance</td>
<td>12.8</td>
<td>12.6</td>
<td>.59</td>
<td>.001</td>
</tr>
<tr>
<td>Understanding</td>
<td>11.4</td>
<td>12.3</td>
<td>.62</td>
<td>.001</td>
</tr>
<tr>
<td>Infrequency</td>
<td>.7</td>
<td>.4</td>
<td>.18</td>
<td>.149</td>
</tr>
<tr>
<td>Desirability</td>
<td>16.0</td>
<td>16.2</td>
<td>.73</td>
<td>.001</td>
</tr>
</tbody>
</table>
### Table 4

**Time-Lagged Correlations Between Order and Impulsivity**

<table>
<thead>
<tr>
<th>Pre-Test Correlations</th>
<th>Post-Test Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Order</td>
<td>Order</td>
</tr>
<tr>
<td>$r = .78$</td>
<td>$r = .78$</td>
</tr>
<tr>
<td>$r = -.56$</td>
<td>$r = -.57$</td>
</tr>
<tr>
<td>Impulsivity</td>
<td>Impulsivity</td>
</tr>
<tr>
<td>$r = .74$</td>
<td>$r = -.72$</td>
</tr>
</tbody>
</table>
Table 5
Time-Lagged Correlations Between Succorance and Autonomy

<table>
<thead>
<tr>
<th></th>
<th>Pre-Test Correlations</th>
<th>Post-Test Correlations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Succorance</td>
<td>$r = .59$</td>
<td>$r = -.65$</td>
</tr>
<tr>
<td></td>
<td>$r = -.72$</td>
<td>$r = -.48$</td>
</tr>
<tr>
<td>Autonomy</td>
<td>$r = .47$</td>
<td>$r = -.34$</td>
</tr>
</tbody>
</table>
cross-correlations (i.e., Succorance pre-test with Autonomy post-test, \( r = -0.34 \), versus Succorance post-test with Autonomy pre-test, \( r = -0.48 \)) indicated that the increase in Autonomy observed for the student nurses resulted in a decrease in Succorance. The Succorance and Autonomy scales were not too reliable from the pre- to post-test measurements, \( r = 0.59 \) and \( r = 0.47 \) respectively, with a decrease in magnitude of correlations between scales from the pre-test measurements, \( r = -0.72 \), to the post-test measurements, \( r = -0.65 \).

A discriminant analysis between the PRF traits and the NPIT types for both the pre-test measures and post-test measures was performed to examine the predictive relationship between personality traits and nursing orientation. According to these analyses, as shown in Tables 6 and 7, the PRF scales correctly classified 94.12 percent of the nursing orientation types in both the pre-test and post-test measures. However, since the number of PRF variables (n=22) is nearly equal to the number of subjects (n=34), the number of correctly classified is not particularly meaningful (Cooley and Lohnes, 1971).
Table 6
Canonical Correlations and Classification Matrices

<table>
<thead>
<tr>
<th>Pre-Test Measure</th>
<th>1) 0.895</th>
<th>2) 0.744</th>
<th>3) 0.678</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canonical Correlations</td>
<td>2) 0.744</td>
<td>3) 0.678</td>
<td></td>
</tr>
<tr>
<td>Percent of Grouped Cases Correctly Classified</td>
<td>94.12%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Actual Group</th>
<th>Predicted Group Membership</th>
<th>No. of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Type I</td>
<td>Type II</td>
</tr>
<tr>
<td>Type I</td>
<td>18</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>94.7%</td>
<td>5.3%</td>
</tr>
<tr>
<td>Type II</td>
<td>1</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>10.0%</td>
<td>90.0%</td>
</tr>
<tr>
<td>Type III</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Type IV</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>
Table 7
Canonical Correlations and Classification Matrices

Post-Test Measure

Canonical Correlations
1) 0.874
2) 0.831

Percent of Grouped Cases Correctly Classified 94.12%

<table>
<thead>
<tr>
<th>Actual Group</th>
<th>Predicted Group Membership</th>
<th>No. of Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Type I</td>
<td>Type II</td>
</tr>
<tr>
<td>Type I</td>
<td>16</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>100.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Type II</td>
<td>2</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>14.3%</td>
<td>85.7%</td>
</tr>
<tr>
<td>Type III</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Type IV</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0.0%</td>
<td>0.0%</td>
</tr>
</tbody>
</table>
Chapter 5

Discussion

Findings

Both pre- and post-test measures of nursing orientation indicated that the nursing students at Western Kentucky University could be classified into types along the patient-technique continuum. Eighty-five percent of the students were classified as either Type I or Type II on the pre-test measure, and 88% were classified as either Type I or Type II on the post-test measure. While it seems reasonable to expect that women who elect to enter the nursing field would be patient-oriented, there was a larger percentage of the nursing population in this investigation who were classified as patient-oriented than was found in other studies reporting NPIT orientation. Meyer (1960) found that 59% of her sample of 292 nurses working in urban hospitals were classified as Type I or Type II nurses, and Bittman (1974) found that 48% of the 65 student nurses at an urban hospital training program were initially classified as patient-oriented. The difference in findings may be due to the type of woman who elects to attend a nursing program in a regional university located in a smaller community being different in her orientation from one who elects to attend a training program or to work in an urban hospital. Another possible explanation is that there are different role perceptions of a nurse in different parts of the country. The nurses
in Meyer's study were on the west coast, Bittman's study was conducted in the southwest, and this study was conducted in the southeast. Since the reliability and validity of the NPIT has not been established, it is also possible that the observed classification differences could be a result of the ineffectiveness of the instrument.

Changes in nursing orientation from the pre-test measure to the post-test measure were found, but no consistent directional trends were detected. This finding contrasts with the finding of Bittman that the student nurses shifted from a patient-orientation to a technique-orientation over a one-year period of training. The findings of the present investigation also differ from those of Steine-Freud (1974), who found nursing students became more patient-centered as their training progressed. Another explanation is that the NPIT may not be a highly reliable instrument and, thus, may not reliably classify the student nurses. The differences may be a result of the role orientation of the training program. It is possible that nursing programs could stress a particular orientation, and that the products of these programs would move more in the direction of the orientation being stressed. Nothing is known about the particular orientation of any of these programs, or even if there is a uniformity of program orientation. It is also possible that some students may be encouraged to become more patient-oriented and other students would be encouraged to become more technique-oriented within the same program. In this latter case, changes are possible without consistent directional changes among the students enrolled in the program. Such a lack of uniform directional changes could have been the case in this investigation.
The current investigation did provide additional support for the consistency of student nurses' personalities over a period of time. Only two changes in traits were evident, and one of those changes could have been a chance occurrence.

The time-lagged correlation analysis between Order and Impulsivity suggested that an increase in Order leads to a decrease in Impulsivity. It is possible that the regimentation of the training program results in a diminution of Impulsivity and this results in (or permits) an increase in Order. Similarly, the time-lagged correlation analysis between Succorance and Autonomy suggested that an increase in Autonomy leads to a decrease in Succorance. It is also possible that the regimentation of the training program results in a diminution of Succorance and this results in (or permits) an increase in Autonomy.

The results of the discriminant analysis suggest that there is a predictive relationship between the PRF personality traits and the NPIT role orientation types. The true predictive value could not be established due to the small sample size in relationship to the number of personality variables.

Limitations

The student nurses who participated in this study may not be representative of nursing students in general. This group consisted of white women from south-central Kentucky. These women were also more patient-oriented than the two comparison groups (i.e., those reported by Meyer, 1960, and Bittman, 1974). These women also are attending a nursing program in a university setting as opposed to a program in a hospital setting; it is not known whether this is the result of some bias in selection which might affect the orientation
of the student nurses. Whether there is a difference in nursing orientation between women who elect to attend a two-year program and women who elect to attend a four-year program is not known.

Future Research

The concept of nursing orientation (i.e., patient-orientation versus technique-orientation) seems to be one the faculty in nursing programs find useful in describing and evaluating student nurses. A valid instrument that reliably measures this dimension would seem to be an asset to the faculty in making discriminations along this continuum. Such an instrument may also be useful in vocational decision-making with regard to nursing specialty, should it be found that different subspecialties in the nursing profession can be characterized by specific nursing types. A further use of such an instrument might be made by administrators and faculty of nursing programs who wish to evaluate the impact of their programs on the nursing orientations of their students.
Reference Note

References


Richards, M. A. B. A study of differences in psychological characteristics of students graduating from three types of basic nursing programs. Nursing Research, 1972, 21(3), 258-261.


<table>
<thead>
<tr>
<th>Scale</th>
<th>Description of High Scorer</th>
<th>Defining Trait Adjectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abasement</td>
<td>Shows a high degree of humility; accepts blame and criticism even when not deserved; exposes himself to situations where he is in an inferior position; tends to be self-effacing.</td>
<td>meek, self-accusing, self-blaming, obsequious, self-belittling, surrendering, resigned, self-critical, humble, apologizing, subservient, obedient,yielding, deferential, self-subordinating.</td>
</tr>
<tr>
<td>Achievement</td>
<td>Aspires to accomplish difficult tasks; maintains high standards and is willing to work toward distant goals; responds positively to competition; willing to put forth effort to attain excellence.</td>
<td>striving, accomplishing, capable, purposeful, attaining, industrious, achieving, aspiring, enterprising, self-improving, productive, driving, ambitious, resourceful, competitive.</td>
</tr>
<tr>
<td>Affiliation</td>
<td>Enjoys being with friends and people in general; accepts people readily; makes efforts to win friendships and maintain associations with people.</td>
<td>neighborly, loyal, warm, amicable, good-natured, friendly, companionable, genial, affable, cooperative, gregarious, hospitable, sociable, affiliative, good-willed.</td>
</tr>
<tr>
<td>Aggression</td>
<td>Enjoys combat and argument; easily annoyed; sometimes willing to hurt people to get his way; may seek to &quot;get even&quot; with people whom he perceives as having harmed him.</td>
<td>aggressive, quarrelsome, irritable, argumentative, threatening, attacking, antagonistic, pushy, hot-tempered, easily-angered, hostile, revengeful, belligerent, blunt, retaliative.</td>
</tr>
<tr>
<td>Autonomy</td>
<td>Tries to break away from restraints, confinement, or restrictions of any kind; enjoys being unattached, free, not tied to people, places, or obligations; may be rebellious when faced with restraints.</td>
<td>unmanageable, free, self-reliant, independent, autonomous, rebellious, unconstrained, individualistic, ungovernable, self-determined, non-conforming, uncompliant, undominated, resistant, lone-wolf.</td>
</tr>
</tbody>
</table>
Appendix A (Continued)

<table>
<thead>
<tr>
<th>Scale</th>
<th>Description of High Scorer</th>
<th>Defining Trait Adjectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change</td>
<td>Likes new and different experiences; dislikes routine and avoids it; may readily change opinions or values in different circumstances; adapts readily to changes in environment.</td>
<td>inconsistent, fickle, flexible, unpredictable, wavering, mutable, adaptable, changeable, irregular, variable, capricious, innovative, flighty, vacillating, inconstant.</td>
</tr>
<tr>
<td>Cognitive Structure</td>
<td>Does not like ambiguity or uncertainty in information; wants all questions answered completely; desires to make decisions based upon definite knowledge, rather than upon guesses or probabilities.</td>
<td>precise, exacting, definite, seeks certainty, meticulous, perfectionistic, clarifying, explicit, accurate, rigorous, literal, avoids ambiguity, defining, rigid, needs structure.</td>
</tr>
<tr>
<td>Defendence</td>
<td>Readily suspects that people mean him harm or are against him; ready to defend himself at all times; takes offense easily; does not accept criticism readily.</td>
<td>self-protective, justifying, denying, defensive, self-condoning, suspicious, secretive, has a &quot;chip on the shoulder,&quot; resists inquiries, protesting, wary, self-excusing, rationalizing, guarded, touchy.</td>
</tr>
<tr>
<td>Dominance</td>
<td>Attempts to control his environment, and to influence or direct other people; expresses opinions forcefully; enjoys the role of leader and may assume it spontaneously.</td>
<td>governing, controlling, commanding, domineering, influential, persuasive, forceful, ascendant, leading, directing, dominant, assertive, authoritative, powerful, supervising.</td>
</tr>
<tr>
<td>Endurance</td>
<td>Willing to work long hours; doesn't give up quickly on a problem; persevering, even in the face of great difficulty; patient and unrelenting in his work habits.</td>
<td>persistent, determined, steadfast, enduring, unflagging, persevering, unremitting, relentless, tireless, dogged, energetic, has stamina, sturdy, zealous, durable.</td>
</tr>
<tr>
<td>Exhibition</td>
<td>Wants to be the center of attention; enjoys having an audience; engages in behavior which wins the notice of others; may enjoy being dramatic or witty.</td>
<td>colorful, entertaining, unusual, spellbinding, exhibitionistic, conspicuous, noticeable, expressive, ostentatious, immodest, demonstrative, flashy, dramatic, pretentious, showy.</td>
</tr>
</tbody>
</table>
### Scale | Description of High Scorer | Defining Trait Adjectives
---|---|---
Harmavoidance | Does not enjoy exciting activities, especially if danger is involved; avoids risk of bodily harm; seeks to maximize personal safety. | fearful, withdraws from danger, self-protecting, pain-avoidant, careful, cautious, seeks safety, timorous, apprehensive, precautionary, unadventurous, avoids risks, attentive to danger, stays out of harm's way, vigilant. |
Impulsivity | Tends to act on the "spur of the moment" without deliberation; gives vent readily to feelings and wishes; speaks freely; may be volatile in emotional expression. | hasty, rash, uninhibited, spontaneous, reckless, irrepressible, quick-thinking, mercurial, impatient, incautious, hurried, impulsive, foolhardy, excitable, impetuous. |
Nurturance | Gives sympathy and comfort; assists others whenever possible, interested in caring for children, the disabled, or the infirm; offers a "helping hand" to those in need; readily performs favors for others. | sympathetic, paternal, helpful, benevolent, encouraging, caring, protective, comforting, maternal, supporting, aiding, ministering, consoling, charitable, assisting. |
Order | Concerned with keeping personal effects and surroundings neat and organized; dislikes clutter, confusion, lack of organization; interested in developing methods for keeping materials methodically organized. | neat, organized, tidy, systematic, well-ordered, disciplined, prompt, consistent, orderly, clean, methodical, scheduled, planful, unvarying, deliberate. |
Play | Does many things "just for fun;" spends a good deal of time participating in games, sports, social activities, and other amusements; enjoys jokes and funny stories; maintains a light-hearted, easy-going attitude toward life. | playful, jovial, jolly, pleasure-seeking, merry, laughter-loving, joking, frivolous, prankish, sportive, mirthful, fun-loving, gleeful, carefree, blithe. |
<table>
<thead>
<tr>
<th>Scale</th>
<th>Description of High Scorer</th>
<th>Defining Trait Adjectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sentience</td>
<td>Notices smells, sounds, sights, tastes, and the way things feel; remembers these sensations and believes that they are an important part of life; is sensitive to many forms of experience; may maintain an essentially hedonistic or aesthetic view of life.</td>
<td>aesthetic, enjoys physical sensations, observant, earthy, aware, notices environment, feeling, sensitive, sensuous, open to experience, perceptive, responsive, noticing, discriminating, alive to impressions.</td>
</tr>
<tr>
<td>Social Recognition</td>
<td>Desires to be held in high esteem by acquaintances; concerned about reputation and what other people think of him; works for the approval and recognition of others.</td>
<td>approval seeking, proper, well-behaved, seeks recognition, courteous, makes good impression, seeks respectability, accommodating, socially proper, seeks admiration, obliging, agreeable, socially sensitive, desirous of credit, behaves appropriately.</td>
</tr>
<tr>
<td>Succorance</td>
<td>Frequently seeks the sympathy, protection, love, advice, and reassurance of other people; may feel insecure or helpless without such support; confides difficulties readily to a receptive person.</td>
<td>trusting, ingratiating, dependent, entreating, appealing for help, seeks support, wants advice, helpless, confiding, needs protection, requesting, craves affection, pleading, help-seeking, defenseless.</td>
</tr>
<tr>
<td>Understanding</td>
<td>Wants to understand many areas of knowledge; values synthesis of ideas, verifiable generalization, logical thought, particularly when directed at satisfying intellectual curiosity.</td>
<td>inquiring, curious, analytical, exploring, intellectual, reflective, incisive, investigative, probing, logical, scrutinizing, theoretical, astute, rational, inquisitive.</td>
</tr>
<tr>
<td>Desirability</td>
<td>Describes self in terms judged as desirable; consciously or unconsciously, accurately or inaccurately, presents favorable picture of self in responses to personality statements.</td>
<td></td>
</tr>
</tbody>
</table>
### Appendix A (Continued)

<table>
<thead>
<tr>
<th>Scale</th>
<th>Description of High Scorer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infrequency</td>
<td>Responds in implausible or pseudo-random manner, possibly due to carelessness, poor comprehension, passive non-compliance, confusion, or gross deviation.</td>
</tr>
</tbody>
</table>
Appendix B

Groupings of PRF Scales

A. Measures of Impulse Expression and Control

- Impulsivity
- Change
- Harmavoidance
- Order
- Cognitive Structure

B. Measures of Orientation toward Work and Play

- Achievement
- Endurance
- Play

C. Measures of Orientation towards Direction from Other People

- Succorance
- Autonomy

D. Measures of Intellectual and Aesthetic Orientations

- Understanding
- Sentience

E. Measures of Degree of Ascendancy

- Dominance
- Abasement

F. Measures of Degree and Quality of Interpersonal Orientation

- Affiliation
- Nurturance
- Exhibition
- Social Recognition
- Aggression
- Defendence

G. Measures of Test-Taking Attitudes and Validity

- Desirability
- Infrequency