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Personality Traits and the Extent to Which They are Valued by Practicing Physical Therapists in the General Hospital Setting

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PERSONALITY TRAITS AND THE EXTENT TO WHICH THEY ARE VALUED BY PRACTICING PHYSICAL THERAPISTS IN THE GENERAL HOSPITAL SETTING

By

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THESIS

Submitted to the Department of Physical Therapy at Grand Valley State University Allendale, Michigan in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE IN PHYSICAL THERAPY

1995
PERSONALITY TRAITS AND THE EXTENT TO WHICH THEY ARE VALUED BY PHYSICAL THERAPISTS IN THE GENERAL HOSPITAL SETTING

ABSTRACT

This descriptive study seeks to identify the value placed on personality traits by physical therapists and to develop a personality trait profile indicating what is desired of physical therapists in the general hospital setting. Five hundred surveys were sent to the physical therapy (PT) directors of a nationwide sample of randomly selected hospitals accredited by the American Hospital Association with greater than 75, but less than 150 beds. Two hundred and ninety-four surveys (59%) were returned. Survey responses were coded and analyzed using the Statistical Package for the Social Sciences (SPSS). The data was analyzed by using the descriptive measures of median, mode, frequency counts, and percentages. The personality traits were divided into three groups (high positive, moderate positive, and low positive) based on the value given to individual traits. High (>35%) consensus was obtained for the personality traits of Achievement, Understanding, Aggression, Defendence and Impulsivity. The value given to the 20 traits in aggregate creates a profile of what is valued for physical therapists in the general hospital setting.
ACKNOWLEDGMENTS

A special thank you to Jane Toot for taking on the responsibility of chair for our committee and saving us from being stranded when the first chair moved out of state. Thank you to William C. Bell and Lucille Grimm for participating as committee members, sharing their experience and helping to guide us to the finished product. We would also like to thank our families and friends who have listened to and comforted thesis woes for over a year. Special thanks to Dwain and Deanna Mitchell for helping with the use of their home and computer.
DEFINITION OF TERMS

**Abasement:** Shows a high degree of humility, accepts blame and criticism when not deserved; exposes himself to situations where he is in an inferior position; tends to be self-effacing.

**Achievement:** 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.

**Affiliation:** Enjoys being with friends and people in general; accepts people readily; makes efforts to win friendships and maintain associations with people.

**Aggression:** Enjoys combat and argument; easily annoyed; sometimes willing to hurt people to get his way; may seek to "get even" with people whom he perceives as having harmed him.

**Autonomy:** 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.

**Change:** Likes new and different experiences; dislikes routine and avoids it; may readily change opinions or values in different circumstances; adapts readily to changes in the environment.

**Cognitive Structure:** Doesn't 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.

**Defendence:** 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.
**Dominance:** 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.

**Endurance:** 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.

**Exhibition:** 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.

**Harm Avoidance:** Does not enjoy activities, especially if danger is involved; avoids risk of bodily harm; seeks to maximize personal safety.

**Impulsivity:** Tends to act on the "spur of the moment" and without deliberation; gives vent readily to feelings and wishes; speaks freely; may be volatile in emotional expression.

**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.

**Order:** Concerned with keeping personal effects and surroundings neat and organized; dislikes clutter, confusion, lack of organization; interested in developing methods for keeping material methodically organized.

**Play:** Does many things 'just for fun;' spends a god 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.

**Sentience:** Notices smell, sounds, sights taste, and the way things feel; remembers these sensations and believes they are an important part of life; is sensitive to many forms of experience; may maintain an essentially hedonistic or aesthetic view of life.

**Social Recognition:** 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.
**Succorance:** 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.

**Understanding:** Wants to understand many areas of knowledge; values synthesis of ideas, verifiable generalization, logical thought, particularly when directed at satisfying intellectual curiosity.
LIST OF ABBREVIATIONS

EPPS- Edwards Personality Preference Scale
GPA- Grade Point Average
PT- Physical Therapy
APTA- American Physical Therapy Association
MBTI- Myers-Briggs Type Indicator
AHA- American Hospital Association
SPSS- Statistical Package for the Social Sciences
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CHAPTER 1

INTRODUCTION

The purpose of this study was two fold: (1) to identify the value placed on individual personality traits by physical therapists, and (2) to compile a desired personality trait profile of physical therapists in the general hospital setting. The identification of the personality trait profile desired of physical therapists may be useful in facilitating pre-professional guidance of those seeking to enter the physical therapy (PT) profession. The profile may also assist PT faculty in developing teaching strategies to promote these traits, to de-emphasize the promotion of traits of low value, and to prepare students in their transition from student to clinician.

This study replicates the survey portion of the study performed by Charlene U. Bradham, MNSc, RN, Frances C. Dalme, PhD, RN, & Patricia J. Thompson, PhD, RN, (1990) entitled "Personality Traits Valued by Practicing Nurses and Measured in Nursing Students". Bradham et al. performed a two part study. The first part of the study identified personality traits of nursing students using the Edwards Personality Preference Scale (EPPS). The second part of the Bradham et al. study surveyed practicing nurses to develop a profile of
the value given to the personality trait sub-scales identified by the EPPS. The second portion of the Bradham study was replicated in our study using a sample of physical therapists instead of nurses.

Bradham and her colleagues (1990) based their research on the fact that cognitive criteria is commonly used in determining the acceptance of students into nursing programs with rare pre-admission assessment of psychomotor abilities or attitudes. However, the important components of cognitive and psychomotor abilities are universally evaluated in nursing education programs.

Balogun, Karacoloff, and Farina's research (1986) on the educational admission process in PT indicated that PT programs commonly base a significant portion of their admission criteria on cognitive abilities. These abilities were weighed more heavily than other factors in the admission process (Balogun et al., 1986). The process of selection and evaluation of applicants to PT schools appear to parallel those processes found in nursing schools.

While pre-professional academic grade point average (GPA) has been shown to be a good predictor of professional academic success, GPA has not been shown to be a good predictor of clinical success (Rheault and Shafernich-Coulson, 1988). This lack of correlation between GPA and clinical success suggests that other variables may be related to clinical ability.

Personality traits, attitudes and interpersonal skills
are variables that have been linked to clinical success by Peacock and O’Shea (1984). Because non-cognitive attributes are important in the clinical setting, they should be universally evaluated in the application process of physical therapy programs (Balogun et al., 1986).

Two hypotheses were tested by Bradham et al. The first hypothesis was that there would be no difference between the value placed on personality traits by practicing nurses and the degree to which those traits are present in nursing students upon completion of their formal education. The second hypothesis was that the personality traits of both associate and bachelor degree seeking nurses did not change during the course of their educational program.

Bradham et al. presented 20 personality traits and asked nurses to indicate the degree (high, moderate or low) to which they believed each trait would best promote the delivery of high quality nursing care and/or enhance the status of the nursing profession. The personality trait definitions are the same definitions used to describe personality sub-scales in the EPPS. Results of the Bradham study indicated significant differences between the value given to the personality traits by practicing nurses and the degree to which those traits were shown to be present in graduating nurses having taken the EPPS.

The portion of Bradham's work being replicated is the survey portion, with the sample consisting of physical therapists instead of nurses. This study intends to identify
the value placed on individual personality traits by physical therapists. This study also intends to compile a profile of 20 personality traits of a physical therapist in the general hospital setting. The authors of this study intend to compare the personality profile of physical therapists with the personality profile of nurses developed by Bradham et al. (1990).
CHAPTER 2

LITERATURE REVIEW

The importance of personality traits in physical therapy today is evident in Matthews' book (1989), *Practice Issues in Physical Therapy*. She explains how the physical therapy (PT) profession is facing increased demands for therapists who are equipped and ready to meet the challenge of taking on new and different roles. Matthews lists the current roles of the physical therapist to be "clinician, generalist; clinician, specialist; supervisor; manager; administrator; consultant; educator and researcher" (p. 4).

Matthews remarks that physical therapists are expected to fulfill roles that have not been historically associated with the traditional physical therapist role. Physical therapists are expected to take on the roles of being "...an advocate for the patient and family; a political activist on behalf of the public and the profession; a marketer of physical therapy services; a representative to community organizations; a fund raiser for needs in service, research and education; an active participant in professional organizations; a continuing learner; and a contributor to new knowledge" (p. 4).
In order for physical therapists to be successful in fulfilling these expected roles, physical therapists must possess personality traits, attitudes, and interpersonal skills consistent with the demands of the profession. The American Physical Therapy Association (APTA) recognizes the importance of communication skills and their relation to personality traits, attitudes, and interpersonal skills in the physical therapist by providing guidelines and recommendations for communication skills in the Accreditation Handbook.

Payton (1983) paraphrases the APTA Accreditation Handbook by stating that physical therapists should engage the greatest possible degree of patient motivation and cooperation in patient treatment. Physical therapists should provide psychosocial support by (a) recognizing patients', families', and his own reaction to illness and disability; (b) by respecting individual cultural, religious and socioeconomic differences in people; and (c) by utilizing appropriate communicative processes.

Payton (1983) continues to paraphrase the Accreditation Handbook: Physical therapists should demonstrate appropriate and effective written, verbal, and nonverbal communication with patients, their families, colleagues, and the public. Payton suggests these criteria for communication skills are therapeutic tools on par with goal setting, selecting treatment methods, and safe, ethical, legal practice.

The expanding roles of physical therapists have led to
increased professional autonomy and responsibility. Consequently, these changes have created a renewed focus on the PT student's education and competency in interpersonal skills (DeMont & Guccione, 1987). However, the importance of non-cognitive traits is not weighted in the PT admission process to reflect the value of these traits in practice settings (Balogun, 1988).

Admission processes reflect the consideration of objective criteria in an attempt to select the best candidate for PT programs because the number in the applicant pool is consistently larger than positions offered for placement (Balogun, 1988). The most commonly used criteria for PT school admission is the combination of composite scores of grade point average (GPA), select core class GPA, pre-admission testing, written essays, personal interviews, personal recommendations and the fulfillment of a requisite number of volunteer hours (Balogun, 1988).

A significant portion of PT admission criteria are based on the applicant's cognitive abilities. Cognitive abilities are reflected by the applicant's grade point average and pre-admission examination scores. These factors are often weighted more heavily than other factors in the admission process to PT schools (Balogun et al., 1986), (McGinnis, 1984).

The importance of academic achievement in the selection process for PT students has been recognized by educators and researchers as an important measure in determining academic
success. Balogun, Karacoloff, and Farina (1986) showed the most powerful predictors of academic achievement in baccalaureate physical therapy programs were GPA (40% of the variance) and pre-admission written essay (11% of the variance). Rheault and Shafernich-Coulson (1988) also found significant relationships between pre-professional GPA and professional GPA for PT students.

Balogun (1988) correlated pre-admission criteria to academic and clinical performance in a PT undergraduate program. Balogun's results indicated that the cognitive measures of GPA, select core class GPA, pre-admission testing, and written essays, are reliable predictors of PT student's academic performance. However, the best predictor of clinical performance was found by Balogun to be the interview rating, which is a non-cognitive measure.

Rheault and Shafernich-Coulson (1988) found no relationship between pre-professional academic achievement and clinical performance (p<.05). Rheault and Shafernich-Coulson suggest that the absence of a significant relationship between pre-professional GPA and clinical performance may indicate different variables, such as problem solving skills or attitudes, as being better related to clinical achievement than cognitive abilities.

While clinical achievement can not be reliably predicted by cognitive measures, studies have shown that clinical achievement can be predicted by non-cognitive measures such as personality traits. Peacock and O'Shea (1984) found six
personality traits that significantly contributed to occupational therapy clinical job performance ratings. The personality traits of Desirability, Nurturance, Change and Achievement contributed to the attainment of a higher job performance ratings. Understanding and Exhibition were traits found to be significantly related to lower job performance ratings.

Because physical therapy is both a 'science' (academic knowledge base) and an 'art' (techniques of clinical practice), cognitive and non-cognitive measure are important when admitting students into PT education programs (Balogun, 1988). It seems the selection process should proportionally reflect the importance of personality traits, attitudes and interpersonal skills evaluation as they relate to the clinical setting.

In an attempt to consider personality components in the selection process in PT school admissions, Dawson (1988) suggests that the use of standardized personality tests may be a useful adjunct. However, when PT programs receive hundreds of applications per year, standardized personality testing cannot be considered a practical alternative. Instead, PT schools may consider incorporating the development of personality traits, attitudes and interpersonal skills into their curricula.

DeMont and Guccione (1987) found evidence of interpersonal skills instruction in all entry-level PT programs. Ninety-seven percent of the entry-level PT
programs sampled reported that they explicitly taught interpersonal skills, but only 74.3% of the total number of programs sampled directly evaluated the learning of those skills. Some interpersonal skills, such as supervisory skills, were not taught in all of the PT programs sampled despite the importance of the skill in clinical practice. The results of DeMont and Guccione's study indicate that the teaching of interpersonal skills is widespread among PT programs, but there is little agreement among programs as to how these skills should be instructed or evaluated.

The lack of agreement in the interpersonal skill instruction and evaluation may be because clear goals for desired outcomes have not been identified. Objective and relevant clinical goals, such as agreement with a PT personality profile, are difficult to set by educational institutions when desirable personality trait, attitude and interpersonal skill parameters have not been clinically identified.

Research has been performed to provide evidence of the effects of education on personality traits. Attempts have been made to determine the degree of influence on personality traits by educational programs both with and without intentional personality trait development. Dyck, Rae, Sawatzky and Innes (1991) looked at the effect of education on personality traits when no specific program was used to influence a change in personality. Dyck et al. used the EPPS to compare the personality characteristics of baccalaureate
nursing students at the beginning and at the end of a nursing program. Dyck et al. found five personality traits (Heterosexuality, Order, Change, Deference and Endurance) changed significantly after four years of nursing education.

Bruhn, Floyd and Bunce (1978) found the nursing student's locus of control was more externally controlled at the end of the educational program than it was at the beginning of the program. The nursing students were also found to be more introverted and less perceptive according to the Myers Briggs Type Indicator (MBTI). The same sample of nursing students were tested one year after graduation. The nurses portrayed an Introversion-Extroversion score that was almost identical to the score they had upon entry into the program. The nurses also had become more intolerant of ambiguity one year following graduation.

Clark and White (1983) found change in personality traits of Australian occupational therapy students after completion of a program where no specific agent of change was employed. Clark and White determined that the characteristics of Achievement, Order, Dominance and Abasement became more pronounced as the occupational therapy student sample's training progressed.

The research performed by Bruhn et al. (1978), Dyck et al. (1991), and Clark and White (1983) illustrate the evolving nature of personality traits in students. Apparently, student characteristics can become both more or less developed as professional socialization occurs.
Educational programs incorporating specific instruction in the areas of developing personality traits, attitudes and interpersonal skills attempt to take advantage of the malleability of these characteristics.

Payton's study (1983) showed that interpersonal skills teaching done by PT programs can positively affect the interpersonal skills of their students. Physical therapy students in Payton's study demonstrated significant improvements in their overall use of communication skills as a result of interpersonal skills training. The students demonstrated significantly increased use of closed and open questions, paraphrases and reflective feeling comments. The students also demonstrated significant decreases in their use of verbally directive statements and content related expressions.

The positive influence of training on personality traits, attitudes and interpersonal skills based on desired trait profiles could give students a distinct advantage for clinical success. Peacock and O'Shea (1984) significantly related personality traits in occupational therapists to on-the-job performance. The authors of the study found that job performance ratings were related to high scores of Desirability, Nurturance, Change and Achievement, and low scores of Understanding and Exhibition.

A study performed by Rovezzi-Carroll and Leavitt (1984) suggests that a link also exists between attitudes and personality characteristics of graduating PT students and
their career choices. Rovezzi-Carroll and Leavitt found that PT students wanting to become generalist clinicians scored higher on the Sensing and Judging scale of the MBTI and those students who desired to be specialist clinicians scored higher on the Intuitive and Perceiving scale. Rovezzi-Carroll and Leavitt describe the specialist clinician group as being curious and adaptive problem solvers; and the generalist group as being precise, routine-oriented, and procedural. The authors go on to state, "The generalist PT clinician group, appear to prefer routine tasks, precision, and certainty." Rovezzi-Carroll and Leavitt suggest that these characteristics are congruent with the responsibilities inherent in the generalist clinician's role.

Rovezzi-Carroll and Leavitt's study holds implications for advisors when regarding personality characteristics and career choices with high school students and college transfer students applying to PT programs. Rovezzi-Carroll and Leavitt suggest this same information may be helpful to graduates of PT programs in selecting employment sites congruent with their own personality preferences, contributing to overall job satisfaction and stability. Rovezzi-Carroll and Leavitt also suggest the results could be used in curriculum planning and student awareness as the students in these two groups may have different learning style preferences.

Wagstaff (1987) suggests sites of clinical employment chosen by graduating PT students may be influenced by their
professional education. Wagstaff found only 3% of graduating PT students expressed interest in working with a population over 65 years of age. In fact, he suggests that schools must better educate therapists to become more responsive to community needs and become more available to social groups who are relatively neglected, especially the elderly.

Shepard and Jensen (1990) propose that the goals and objectives of most entry-level physical therapy education programs are aimed at achieving technical and clinical competency and may not be designed to completely prepare the type of PT practitioner needed for the 1990's. Shepard and Jensen suggest that not enough emphasis is placed on the development of personality traits or communication and interpersonal skills. Shepard and Jensen also suggest that while yesterday's graduate focused on PT treatment, tomorrow's graduate must focus on developing their evaluating, teaching, administrating, consulting and researching skills.

Shepard and Jensen (1990) advocate the development of the reflective practitioner who will be able to meet the demands of the changing health care environment. The authors describe the reflective practitioner as a professional who is able to evaluate situations, problem solve, and work with problems for which there are no known protocols or effective interventions. Shepard and Jensen agreed with Davis, (1985) who suggests that PT faculty should teach students the attitudes and skills required for thinking through and
responding to the purposes and consequences of their own actions in the clinical setting. Davis also urges PT educators to teach their students to value thinking in action, and to focus not only on problem solving but also on problem setting, or putting a problem within a context in which it can be solved.

The changing physical therapy and health care scene is placing different demands on students of today than it did in the past. The selection, education and personality traits of these students should meet the needs of the profession. Currently, there is not a consensus as to what personality traits are valued by physical therapists in the United States.

Dawson (1988) determined a unique profile of non-intellectual variables for the English physiotherapist.

Dawson found that the physiotherapy student is outgoing, intelligent, neurotic (defined by the authors as a combination of energy and drive), adaptable and excitable. Dawson's study does not lend itself to duplication because of the unavailability of the survey instrument and amount of time required to perform the study, which spanned several years. Therefore, the authors chose to duplicate the Bradham et al. study instead of the Dawson study to develop a personality profile for physical therapists.

The development of a profile outlining the personality traits valued in physical therapy could assist PT faculty in their admission and socialization of students. The
implications for this study include possible application to the pre-vocational guidance, selection and development of PT students based on values from currently practicing physical therapists. The research questions are 1. Is there an identifiable personality trait profile desired of a physical therapist? and 2. How does this profile compare to those determined by other health care professions?
CHAPTER 3

METHOD and MATERIALS

Sample

This study was designed to develop a profile of personality traits valued for practicing physical therapists and to identify the degree of value placed on personality traits by practicing physical therapists. The survey sample consisted of physical therapists who have been employed as a physical therapist for at least five consecutive years after graduating from an APTA accredited school. The physical therapists sampled were also required to have served as clinical instructors for one full-time student clinical affiliation. This criteria was set to target practitioners with clinical and teaching experience.

The authors randomly selected 500 hospitals with greater than 75 beds, but less than 150 beds from the 1994 American Hospital Association (AHA) guide. The selected hospitals also met the criteria of having a PT department that provides both in-patient and out-patient services. The hospital size and treatment parameters were set to increase the homogeneity of the sample by excluding specialization hospitals and minimizing the number of specialized physical therapists.

The investigators selected from a catalog of AHA
accredited hospitals using random interval, systematic sampling. The number of hospitals of greater than 75 beds and less than 150 beds was divided by 500, to arrive at a sampling interval. A number was chosen from a table of random numbers. The hospital correlating to the random number served as the starting point for sampling interval. The interval was used until all 500 hospital had been selected.

The investigators concluded that a mailed survey was the most effective way to perform this study. One survey was sent to the director of PT at each hospital and permission was given for questionnaire duplication. The investigators intended the hospitals to duplicate the survey if more than one physical therapist at the institution met the criteria and wished to participate in the study.

Questionnaire

The survey instrument used was identical to the instrument used by Bradham et al. (1990), with the substitutions of the words physical therapist for the word nurse. This questionnaire was based on the EPPS. Lewis and Cooper (1976) found that the EPPS was the most frequently used personality measure cited in the literature, which would allow for comparisons to other studies. The questionnaire was pretested by Bradham et al. to clarify survey items and format, as well as to establish the expected completion time of twenty minutes.

The questionnaire included five questions describing
demographic information on the physical therapists' primary role, years since completion of their education, and the highest level of education completed. Twenty definitions of personality traits derived from the EPPS followed, with the opportunity for the respondent to indicate the degree to which they valued the traits. Respondents indicated a trait to be A= High positive, B= Moderate positive, or C= Low positive (Appendix A). The questionnaire was utilized with written permission from the Psychological Corporation holding body of the EPPS (Appendix B). Written permission for survey replication was granted by Patricia J. Thompson PhD., RN, a co-author of the original study (Appendix C).

Questionnaires were accompanied by a cover letter explaining the participation requirements, duplication permission, and the criteria on which their hospital had been chosen (Appendix D). Participants were informed that they could obtain the survey results by sending a self-addressed stamped envelope with their returned questionnaire. Respondents were invited to add questions or comments on the back of the questionnaire.

The questionnaires were also accompanied by a return, stamped envelope addressed to the study's authors to encourage the rapid return of the survey by the due date, two weeks later. In order to assure anonymity, respondents were asked not to sign completed surveys.

Two hundred ninety-four surveys were returned by the deadline and were incorporated into data analysis. Twenty
seven surveys were returned after the deadline and several surveys were returned uncompleted. Both the late and uncompleted surveys were not included in analysis. Because the number of duplicated surveys was unable to be determined, the authors chose to describe the returned surveys in terms of a frequency count.

Data collected was coded then analyzed using the Statistical Package for the Social Sciences Software (SPSS). Questions left unanswered by respondents were not encoded into SPSS, and were excluded from analysis. Descriptive analysis included median, mode, percentages, and frequency counts.
CHAPTER 4

RESULTS

To identify the value placed on 20 personality traits by physical therapists and to compile a desired personality trait profile of physical therapists in the general hospital setting, 500 surveys were sent to physical therapists working in general hospitals to collect data. Two hundred ninety-four surveys were received by the authors and were encoded into SPSS for analysis. The authors of the study were advised to use the statistical measures of median, mode, percentages and frequency counts to describe the ordinal data obtained from the questionnaire.

The first five questions of the survey gathered demographic information about the respondents' current role within the general hospital setting, their basic and advanced levels of education and the number of years since the completion of their education. Analysis of the respondents' current role within the general hospital setting found that nearly an equal number of staff therapists (51.2%) and PT administrators (48.8%) responded to the survey (Table 1).
Table 1

Professional Role of Respondent

<table>
<thead>
<tr>
<th>Professional Role</th>
<th>No. of respondents</th>
<th>% of respondents</th>
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<tr>
<td>Staff therapist</td>
<td>148</td>
<td>51.2%</td>
</tr>
<tr>
<td>Administrator</td>
<td>141</td>
<td>48.8%</td>
</tr>
</tbody>
</table>

In response to our inquiry regarding the respondents' basic level of physical therapy education, the majority of the respondents reported that they obtained a baccalaureate degree (87.0%) (Table 2). Only 11.6% of the respondents had obtained a master's degree or higher and still fewer (1.4%) of the respondents had received an associate's degree.

Table 2

Basic Physical Therapy Degrees of Respondents

<table>
<thead>
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<th>Basic level of physical therapy education</th>
<th>No. of respondents</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate degree</td>
<td>4</td>
<td>1.4%</td>
</tr>
<tr>
<td>Baccalaureate degree</td>
<td>254</td>
<td>87.0%</td>
</tr>
<tr>
<td>Master's degree or higher</td>
<td>34</td>
<td>11.6%</td>
</tr>
</tbody>
</table>

The majority of the survey respondents reported their highest level of physical therapy education was a baccalaureate degree (72.8%) (Table 3). The percentage of respondents who had a master's degree or higher in physical therapy (14.6%) was slightly greater than the percentage of those who received a master's degree or higher in another
field (10.5%). A single respondent (0.3%) reported having an associate's degree as their highest level of education.

Table 3

Highest Level Educational Degrees of Respondents

<table>
<thead>
<tr>
<th>Highest level of physical therapy education</th>
<th>No. of respondents</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate's degree</td>
<td>1</td>
<td>.3%</td>
</tr>
<tr>
<td>Baccalaureate degree</td>
<td>214</td>
<td>72.8%</td>
</tr>
<tr>
<td>Master's degree or higher in physical therapy</td>
<td>42</td>
<td>14.6%</td>
</tr>
<tr>
<td>Master's degree or higher in other field</td>
<td>30</td>
<td>10.5%</td>
</tr>
</tbody>
</table>

The percentage of survey respondents who reported having completed their basic level of physical therapy education 11-20 years ago (41.5%) was only slightly greater that the percentage of respondents who completed their basic level of education within the last 10 years (40.4%) (Table 4). Those respondents who obtained their physical therapy education more than 20 years ago was 18.1%.
Table 4

Time Since Completion of Respondents' Basic Level of Physical Therapy Education

<table>
<thead>
<tr>
<th>Time since completion of basic PT education</th>
<th>No. of respondents</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10 years</td>
<td>116</td>
<td>40.4%</td>
</tr>
<tr>
<td>11-20 years</td>
<td>119</td>
<td>41.5%</td>
</tr>
<tr>
<td>more than 20 years</td>
<td>52</td>
<td>18.1%</td>
</tr>
</tbody>
</table>

One half of the respondents reported having completed their highest level of education within the last ten years (50.0%), while 36.4% of the respondents obtained their highest level of education 11-20 years ago and 13.6% had completed their highest level of education more than 20 years ago (Table 5).

Table 5

Time Since Completion of Respondents' Highest Level of Education

<table>
<thead>
<tr>
<th>Time since completion of highest level of education</th>
<th>No. of respondents</th>
<th>% of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10 years</td>
<td>143</td>
<td>50.0%</td>
</tr>
<tr>
<td>11-20 years</td>
<td>104</td>
<td>36.4%</td>
</tr>
<tr>
<td>More than 20 years</td>
<td>39</td>
<td>13.6%</td>
</tr>
</tbody>
</table>
The demographic data illustrated the variety of professional roles, educational levels, and years of practice as a physical therapist. Using the chi squared analysis, no significance was found between any of the demographic factors and the way the personality traits were rated. Therefore, all data was used in the analysis of the personality traits.

The values placed on specific personality traits were determined by the surveyed physical therapists who placed values of either high, moderate or low positive on each of the twenty personality traits. The frequency and percentage of respondents who placed a high, moderate or low positive value on each trait is listed. The median and mode was also calculated for each personality trait to determine the most frequently assigned value to each trait by the respondents (Table 6).
Table 6

Positive Value Placed on Personality Traits by 294 Respondents

<table>
<thead>
<tr>
<th>Personality traits</th>
<th>Median And Mode</th>
<th>Low positive percentage</th>
<th>Moderate positive percentage</th>
<th>High positive percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abasement</td>
<td>1.00</td>
<td>76.1%</td>
<td>20.8%</td>
<td>3.1%</td>
</tr>
<tr>
<td>Achievement</td>
<td>5.00</td>
<td>0.0%</td>
<td>11.2%</td>
<td>88.8%</td>
</tr>
<tr>
<td>Affiliation</td>
<td>5.00</td>
<td>.7%</td>
<td>30.9%</td>
<td>68.4%</td>
</tr>
<tr>
<td>Aggression</td>
<td>1.00</td>
<td>99.3%</td>
<td>0.3%</td>
<td>0.3%</td>
</tr>
<tr>
<td>Autonomy</td>
<td>1.00</td>
<td>75.8%</td>
<td>24.2%</td>
<td>0</td>
</tr>
<tr>
<td>Change</td>
<td>3.00</td>
<td>9.5%</td>
<td>74.5%</td>
<td>16.0%</td>
</tr>
<tr>
<td>Cognitive Structure</td>
<td>3.00</td>
<td>10.2%</td>
<td>63.6%</td>
<td>25.9%</td>
</tr>
<tr>
<td>Defendence</td>
<td>1.00</td>
<td>98.3%</td>
<td>0</td>
<td>0.3%</td>
</tr>
<tr>
<td>Dominance</td>
<td>3.00</td>
<td>28.2%</td>
<td>61.9%</td>
<td>9.9%</td>
</tr>
<tr>
<td>Endurance</td>
<td>5.00</td>
<td>1.7%</td>
<td>37.1%</td>
<td>61.2%</td>
</tr>
<tr>
<td>Exhibition</td>
<td>3.00</td>
<td>48.8%</td>
<td>50.5%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Harm avoidance</td>
<td>3.00</td>
<td>30.7%</td>
<td>63.1%</td>
<td>6.1%</td>
</tr>
<tr>
<td>Impulsivity</td>
<td>1.00</td>
<td>88.1%</td>
<td>11.3%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Nurturance</td>
<td>5.00</td>
<td>1.4%</td>
<td>23.1%</td>
<td>75.5%</td>
</tr>
<tr>
<td>Order</td>
<td>3.00</td>
<td>5.4%</td>
<td>53.7%</td>
<td>40.6%</td>
</tr>
<tr>
<td>Play</td>
<td>3.00</td>
<td>4.4%</td>
<td>53.4%</td>
<td>42.2%</td>
</tr>
<tr>
<td>Sentience</td>
<td>3.00</td>
<td>15.5%</td>
<td>61.0%</td>
<td>23.4%</td>
</tr>
<tr>
<td>Social Recognition</td>
<td>3.00</td>
<td>20.1%</td>
<td>60.9%</td>
<td>19.0%</td>
</tr>
<tr>
<td>Succorance</td>
<td>1.00</td>
<td>78.8%</td>
<td>20.5%</td>
<td>0.7%</td>
</tr>
<tr>
<td>Understanding</td>
<td>5.00</td>
<td>0.3%</td>
<td>13.6%</td>
<td>86.1%</td>
</tr>
</tbody>
</table>
The authors attempted to develop a personality profile desired by physical therapists in the general hospital setting by grouping the twenty different personality traits into high, moderate and low positive categories as indicated by the respondents. Achievement (88.8%), understanding (86.1%), nurturance (75.5%), affiliation (68.4%) and endurance (61.2%) were considered by the majority of the survey respondents to be highly positive traits in a physical therapist working in a general hospital setting.

The nine traits considered to be moderately positive by the majority of respondents in descending order were change (74.5%), cognitive structure (63.6%), harm avoidance (63.1%), dominance (61.9%), sentience (61.0%), social recognition (60.9%), order (53.7%), play (53.4%) and exhibition (50.5%). The six personality traits considered by the majority of the survey respondents to be of low positive value in a physical therapist are in descending order as follows: Aggression (99.3%), defendence (98.3%), impulsivity (88.1%), succorance (78.8%), abasement (76.1%) and autonomy (75.8%). The personality traits are divided into their respective categories in Table 7.
Table 7
Value Placed on Personality Traits

<table>
<thead>
<tr>
<th>Value</th>
<th>High positive</th>
<th>Moderate positive</th>
<th>Low positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achievement</td>
<td>Change</td>
<td></td>
<td>Aggression</td>
</tr>
<tr>
<td>Understanding</td>
<td>Cognitive</td>
<td></td>
<td>Defendence</td>
</tr>
<tr>
<td>Nurturance</td>
<td>structure</td>
<td></td>
<td>Impulsivity</td>
</tr>
<tr>
<td>Affiliation</td>
<td>Harm avoidance</td>
<td></td>
<td>Succorance</td>
</tr>
<tr>
<td>Endurance</td>
<td>Dominance</td>
<td></td>
<td>Abasement</td>
</tr>
<tr>
<td></td>
<td>Sentience</td>
<td></td>
<td>Autonomy</td>
</tr>
<tr>
<td></td>
<td>Social</td>
<td>Social recognition</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Order</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Play</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Exhibition</td>
<td></td>
</tr>
</tbody>
</table>

The authors of this study were unable to make statistical comparisons to the Bradham et al. study because different data analysis methods were used in their study. The authors of this study were advised to use the statistical measures of median, mode, frequency and percentages. However, Bradham et al selected the mean, standard deviation and variance to describe their data. For this reason, statistical comparisons with Bradham's et al. study were not performed.
CHAPTER 5

DISCUSSION

In an effort to determine a profile of the value of personality traits for physical therapists, the investigators surveyed physical therapists in the general hospital setting nationwide. Physical therapists were asked to indicate in which category (high, moderate or low positive) they would place 20 different personality traits based on how they valued those traits. The aggregate grouping of personality traits based on value given by physical therapists provides a personality trait profile considered by physical therapists to best promote the high quality of care and enhance the PT profession.

Comparisons of this study with others

This study on personality traits valued by physical therapists compares favorably with the study performed on nurses by Bradham et al. (1990). Differences in analysis techniques between the two studies, and the unavailability of raw mean scores from the Bradham study made statistically significant comparisons impossible. Although we chose frequencies, medians, modes and percentages to formally describe our data, out of curiosity, we also calculated the
means. With this additional calculation, comparisons could be made more easily between the Bradham's nursing study and our study on physical therapists.

When the Bradham study on nurses and this study on physical therapists were compared on the basis of means, four personality traits were placed in different value categories. Cognitive structure, Order, and Sentience are valued as high positive ($4.00 < x < 5.00$) for nurses. These same traits are valued as moderate positive for physical therapists, (Cognitive Structure $x = 3.31$, Order $x = 3.71$, and Sentience $x = 3.16$). Social recognition was determined to be valued as moderate positive ($3.00 < x < 4.00$) for nurses, and valued as low positive ($x = 2.90$) for physical therapists. Significance of the differences between the studies could not be determined as the exact mean values from the nursing study were unobtainable.

Similar differences between the nursing study and the PT study were discovered when the personality traits were grouped into the three ordinal categories of high positive, moderate positive and low positive. The personality traits, followed by their definitions as used in questionnaire, were ranked from highest to lowest according to the frequency of the answers provided by the survey participants. Those traits, with their medians and modes equaling 5 and valued as high positive for physical therapist, are found in Figure 1.
Personality Traits Valued as High Positive by Physical Therapists.

Figure 1.

The results of the Bradham study indicate the personality traits of Achievement, Affiliation, Cognitive Structure, Endurance, Nurturance, Order, Sentience and Understanding to be valued as high positive among nurses.

Personality traits, with their medians and modes equaling 3 and rated to be valued as moderate positive for physical therapists are found in Figure 2.
The results of the Bradham study indicate the personality traits of Change, Dominance, Harm Avoidance, Play and Social Recognition to be valued as moderate positive among nurses. The personality traits of Cognitive Structure, Order and Sentience were valued as less positive among physical therapists than the nursing study indicated for nurses. Exhibition is more highly valued for physical therapists than for nurses, although PT respondents were almost equally divided between the moderate positive and the low positive category (as noted with the asterisk).
Personality traits with their medians and modes equaling 1 and valued as low positive for physical therapists are found in Figure 3.

**Personality Traits Valued as Low Positive by Physical Therapists.**

![Bar chart showing personality traits valued as low positive by physical therapists.](chart.png)

Figure 3.

The results of the Bradham study indicate the personality traits of Abasement, Aggression, Autonomy, Defendence, Exhibition, Impulsivity, and Succorance to be valued as low positive among nurses. When comparisons were made between the personality traits valued as low positive among nurses to the personality traits valued as low positive among physical therapists, the only difference was the
potential inclusion of the Exhibition personality trait. The investigators potentially include Exhibition in the low positive category because the PT respondents did not show a clear indication to which category (moderate [50.5%] or low positive [48.8%]) Exhibition belonged.

Discussion of outcomes important in the clinical setting

Personality traits scoring in the high positive category ranged from 88.8% to 61.2%, with four out of the five traits scoring above 68%. Personality traits scoring in the low positive category reflects an even more impressive consensus of the respondents, with all traits reflecting more than 75% of the respondents. This striking consensus between respondents may reflect little tolerance in the value system of physical therapy clinicians in the general hospital setting.

The value system of co-workers is a parameter determining the goodness of fit between an applicant and the environment in which that applicant may practice. A "good fit" is defined as a congruity in expectations, ability and motivation for a job. The importance of a good fit by physical therapists in the general hospital setting is implied through the unexpected consensus in high positive and low positive categories.

Employers looking to maximize an applicant’s goodness of fit to a particular environment may increase the applicant’s
length of stay, thereby helping the employer to minimize the effects of the current shortage of physical therapists. Maximizing an applicant's goodness of fit requires employers to look beyond an applicant's resume to the factors of personality.

The importance of "fit" is especially relevant in the field of PT because physical therapists are practicing in many different settings. This variety of settings call for different personality trait emphasis depending on the unique demands unique of those settings. Traits that are highly valued in one setting may not be highly valued in another. For example, Autonomy was valued as low positive for physical therapists in the general hospital setting by over 75% of the survey respondents. However, in the setting of private practice, and in the roles of consulting, administrating, teaching and researching, Autonomy may be given a significantly higher value.

The investigators agree with DeMont and Guccione's (1987) implications that physical therapists need to possess greater amounts of autonomy and responsibility. Although a difference in semantic interpretation by DeMont and Guccione is possible, the investigators feel the consensus of a low positive value given to the personality trait of Autonomy by physical therapists working in the general hospital setting is probably more representative of that setting than other physical therapy settings.

Low levels of Autonomy may be more desirable in the
general hospital setting because political hierarchies have long been established, and the role of the physical therapist is more strictly and historically defined in the general hospital setting than in other settings. The reflection of personalities with low levels of Autonomy may help to maintain the existing dynamics of the general hospital setting. The low value placed on the personality trait of Autonomy is very important information for both the applicant and the employer if the applicant scores highly in Autonomy or believes him/herself to possess a high degree of that personality trait.

Potential applications for this study

We believe that we have indicated a profile of personality traits appearing to be reflective of the degree of value placed on personality traits by physical therapists in the general hospital setting. This profile adds to the knowledge base of what is known about physical therapists and the relationship between personality traits and the chosen area of practice. In further studies, this personality trait profile may be utilized as a tool to compare and contrast to similar studies on personality trait profiles from other professions.

Differences and similarities between personality traits valued by physical therapists and the value given to those traits by other professions may aid in the pre-vocational
career selection by students. This personality trait profile may also aid in pre-vocational career guidance given by counselors at the high school and collegiate levels. The EPPS is available for personal use in the self-discovery process and may be directly compared with the results of the PT personality trait profile of physical therapists in the general hospital setting. The use of the profile may be a valuable tool for an individual in his/her career decision process.

This study on physical therapists reinforces the fact that personality traits are important factors that must be considered when career choices are made. Obtaining a good fit between the employment setting and the job applicant by maximizing the congruency between the job setting and the personality traits of the individual may not only decrease the turnover rate, it may also decrease the rate of job burnout.

Our study on physical therapists highlights the importance of the formal and informal socialization process of the profession. The socialization process may be structured by professional education programs or by the employment settings. Both settings foster and encourage the development of valued personality traits and discourage the development of undesired personality traits. The identification of a personality profile specifying personality traits and their corresponding values, may allow for instructional design that would perpetuate an existing
profile. Conversely, if an existing profile is not approved of, steps can be taken to socialize away from the profile.

Institutional instruction has been supported in research by Payton (1983), and Bruhn and Bunce (1978) to have an effect on communication skills and personality traits. Bruhn and Bunce noted change in the personality characteristics of the nurses after a 16 week didactic program. If changes can be seen in personality after only 16 weeks, a carefully education program that included personality traits development may have greater and longer lasting effects.

Correlation of results with theory

Peacock and O'Shea (1984) refer to the tendency of an individual's self-concept to be reflected by their occupational choice. We believe that the particular setting in which an individual chooses to practice, as well as their occupation, reflects self-concept and personality. Personal identification with occupational choice and job setting may have been reflected by the striking consensus of responses. More than 88% of the respondents indicated Achievement and Understanding to be valued as high positive and Aggression, Defendence, and Impulsivity, to be valued as low positive. Some respondents identified so strongly with a low value of Aggression, they felt compelled to angrily comment as to the inappropriateness of Aggression to any degree in the profession of PT, and for this reason refused to complete the
People tend to identify strongly with their occupation because they believe it to be a reflection of themselves. Because of the different roles and personality traits emphasized in the variety of physical therapy practice settings, more than one personality trait profile may be found. Occupational therapy is another profession representing various roles and settings similar to those found in physical therapy. Peacock and O'Shea (1984) failed to find a personality profile for occupational therapists that differed significantly from the profile of the general population. However, Peacock and O'Shea made no differentiation between practice settings. This oversight may have been a design flaw limiting their success. The potential influence of practice setting is one of the reasons we chose to limit the population sample as much as possible to the generalist physical therapist in the hospital setting.

Rovezzi-Carroll & Leavitt (1984) support the speculation that different job settings within the same profession may reflect different personalities. Rovezzi-Carroll & Leavitt found statistically significant differences between the personalities of graduating PT students who desired to practice as a generalist clinicians and those students who desired to practice as a specialist clinicians. The investigators agree with Rovezzi-Carroll & Leavitt's suggestion for selecting an employment site based on congruency with personality preferences.
Study limitations and strengths

A limitation of this study, which was based on the nursing study performed by Bradham et al., is that different data analysis techniques were used by both studies. Therefore, statistically significant differences between the two studies could not be determined. Bradham et al. described the results of their study by the use of means, standard deviations and variance. The exact values from this study were unobtainable. Bradham et al. grouped personality traits based on mean inclusion sets: (a) High positive, 4.00 < x < 5.00, (b) moderate positive 3.00 < x < 3.99, and (c) low positive 2.00 < x < 2.99. Statistical experts advised the investigators to describe the data from the study in PT using frequency counts, percentages, medians and modes because the data is ordinal rather than continuous.

Our study has inherent limitations because of the subject matter. All measures of personality are flawed to some degree because personality cannot be fully measured or described by one specific instrument. At any given time, personality is evolving and dynamic in nature. Twenty adjectives cannot completely describe a personality. Therefore, this study has intrinsic limitations common to all studies and measures of personality.

In an attempt to minimize the intrinsic limitations of personality study, the authors of this study chose a
measurement tool commonly used in other studies. At one time, the EPPS was cited as being the most commonly quoted personality tool in available research (Lewis & Cooper, 1976). However, the EPPS may not be the best or most accurate descriptor or measure of personality traits available today. Other personality inventories, such as the Myers-Briggs Type Indicator, have increased in popularity and may prove to be a more valuable personality trait descriptor.

A personality inventory may exist which is better suited for the health care worker. Perhaps an instrument measuring personality traits and identifying items such as communication skill level, (as noted to be of importance by Payton [1983]), or interdependence, (to reflect the utilization of interdisciplinary teams by many treatment facilities), could more completely measure and describe personality.

Another limitation of this study is that the results are only applicable to the general hospital setting, and cannot be generalized to all physical therapists in all settings. The physical therapists in the sample population held different levels of education, primary roles and years of experience. Because of the variety of demographics in our sample, generalizations may not be applicable to demographically homogenous samples of physical therapists.

This study on personality traits valued by physical therapists is strengthened by two factors. First, the study represents a non-biased, random sample of the general
hospital setting with 150 beds or less, nationwide. Secondly, the study is strengthened by an acceptable return frequency of 294 viable questionnaires out of 500 solicitations.

Suggestions for further study

Little research has been performed to identify personality trait profiles in physical therapy. This study seeks to add to the limited body of knowledge about personality traits and PT, yet there remain many questions that need to be answered before personality trait profiles can become truly useful. PT encompasses several clinical, educational and administrative settings, and this study represents only the general hospital setting. Physical therapists in other settings should be surveyed in a manner similar to our study to determine significant value differences placed on personality traits. We believe several different profiles may be found within the same profession based on site of employment.

Investigations of personality profiles should be performed in health care professions in addition to PT, whose members practice in a variety of employment settings. Knowledge of the differences in personality profiles between many professions could aid in career choice, and would be particularly useful at institutions where many health care degrees are offered. Time, energy and money could be saved for many students if personality trait profiles were
and the professions.

The stability of personality traits should be further researched in order to validate the use of personality trait profiles when making career choices or developing curricula. Certain traits may be found to be more amenable to change than others. This information could have implications for curriculum strategies. Perhaps curricula could be designed to facilitate the development of personality profiles thought to be favorable by the PT profession, as Feldman and Crook proposed (1984).

Further studies should be performed on changes in personality traits that occur due to the socialization process. Brown (1989) supports the theory that characteristics can become both more and less developed as professional socialization occurs. A study identifying the degree to which physical therapists identify with their job setting and peers, compared personality trait changes, would be interesting.

Conclusions

The researchers believe a beginning profile of personality traits valued by and for physical therapists has been identified by this study. The strong agreement or disagreement, between on an individual's EPPS scores and personality trait profiles established for physical therapists, could be a factor considered in the decision
therapists, could be a factor considered in the decision making processes in the admissions of students to graduate schools. Personality trait scores could also be used in the career decisions of students based on similarities or lack of similarities with personality trait profiles in the PT profession. Personality trait profiles could serve as guidelines for professional goodness of fit for PT employers and job candidates. These potential applications of personality trait profiles make this study a valuable addition to the profession of physical therapy.
REFERENCES


Wagstaff, P. S. (1987). A study of the personality, motivation and attitudes of finalist physiotherapy students in four member states of the European economic community (the Republic of Ireland, the United Kingdom, the Netherlands and Greece). *Physiotherapy, 73*(6), 311-316.
APPENDIX A

Original Questionnaire by Bradham et al.
Dear Nurse:

We request and would appreciate your cooperation in this study, which is designed to identify personality traits that are believed by nurses to be desirable or undesirable for the members of their profession. The information requested in Part I will be used in the analysis of the data. You need not put your name on the questionnaire, as individuals will not be identified, and only grouped data will be published. The completion of this questionnaire will serve as your consent.

Thank you for your participation.

PART I - (Items 1-5) On the computer sheet, darken the circle that most accurately describes you.

1. Primary Professional Role (Spend majority of time):
   a. Educator
   b. Staff nurse
   c. Nursing service administrator

2. Basic Level of Nursing Education:
   a. Diploma
   b. Associate Degree
   c. Baccalaureate, or higher

3. Highest Level of Nursing Education:
   a. Diploma
   b. Associate Degree
   c. Baccalaureate
   d. Masters or higher in nursing
   e. Masters or higher in other field

4. Time since completion of basic nursing education:
   a. 0-10 years
   b. 11-20 years
   c. more than 20 years

5. Time since completion of highest level of education:
   a. 0-10 years
   b. 11-20 years
   c. more than 20 years

PART II - (Items 6-25) Please read carefully the descriptions of particular personality traits that are present to some degree in all persons. Opposite the corresponding number on your computer answer sheet, darken the circle (A, B, or C) that most accurately indicates your opinion as to the relationship between the behaviors and the practice and profession of nursing. Please refer to the following key:

A = High - Positive. These behaviors, when present in a HIGH degree, would promote the delivery of high-quality nursing care and/or enhance the status of the nursing profession.

B = Moderate - Positive. These behaviors, when present in a MODERATE degree, would promote the delivery of high-quality nursing care and/or enhance the status of the nursing profession.

C = Low - Positive. These behaviors, when present in a LOW degree, would promote the delivery of high-quality nursing care and/or enhance the status of the nursing profession.

6. 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.

7. 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.

8. Enjoys being with friends and people in general; accepts people readily; makes efforts to win friendships and maintain associations with people.
9. Enjoys combat and argument; easily annoyed; sometimes willing to hurt people to get his way; may seek to "get even" with people whom he perceives as having harmed him.

10. 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.

11. 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.

12. 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.

13. Readily suspects that people mean him harm or are against him; ready to defend himself at all times; takes offence easily; does not accept criticism readily.

14. 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.

15. Willing to work long hours; doesn't give up quickly on a problem; perservering, even in the face of great difficulty; patient and unrelenting in his work habits.

16. 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.

17. Does not enjoy exciting activities, especially if danger is involved; avoids risk of bodily harm; seeks to maximize personal safety.

18. Tends to act on the "spur of the moment" and without deliberation; gives vent readily to feelings and wishes; speaks freely; may be volatile in emotional expression.

19. 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.

20. Concerned with keeping personal effects and surroundings neat and organized; dislikes clutter, confusion, lack of organization; interested in developing methods for keeping material methodically organized.

21. 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.

22. Notices smell, 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.

23. 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.

24. 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.

25. Wants to understand many areas of knowledge; values synthesis of ideas, verifiable generalization, logical thought, particularly when directed at satisfying intellectual curiosity.
APPENDIX B

Written permission from the Psychological Corporation
November 23, 1994

Ms. Shiela M. Robinson  
11488 Boyne Blvd.  
Allendale, MI  49401

Dear Ms. Robinson:

This letter will constitute permission for your use of the definitions from the EPPS for use in your graduate research study. Please be sure the full copyright notice appears with the terms.

Thank you for your interest.

Sincerely,

Christine Doebbler  
Supervisor  
Rights & Permissions
APPENDIX C

Written permission from Patricia J. Thompson
We are graduate physical therapy students at Grand Valley State University, Allendale, Michigan, in our final year of study and beginning our master's research. I spoke with you on the phone Nov. 11 regarding the replication of your study entitled 'Personality Traits Valued by Practicing Nurses and Measured in Nursing Students', published in the Journal of Nursing Education of May 1990, Vol. 29, No. 5. We would like to use practicing physical therapists as our sample population, surveying practicing physical therapists and clinical instructors only, to collect data on the value placed on personality traits of students preparing to enter the clinical sector. We would not be replicating the portion of the study involving direct personality trait testing of the student themselves.

Because we hope to directly compare data to that obtained with your study, as well as add to the base of knowledge for the physical therapy field, we would like to use the same survey instrument you used when collecting your data. Please send us a copy of the survey instrument as well as any information you may have on its validity and reliability. Please also sign and return this letter or a copy, as we must obtain written permission to replicate your study before we can proceed further. Enclosed you will find a self addressed stamped envelope for easy return.

Thank you in advance for a speedy reply, we are looking forward to getting this project underway. Of course, if you are interested, we would be more than happy to send you a copy of our results when this project is finished, spring of 1995.

Sincerely,

[Signature]

This day 15 Dec. and year 1994.

I, [Name], grant permission to Sheila M. Robison and Rachel K. Seppanen to replicate the study 'Personality Traits Valued by Practicing Nurses and Measured in Nursing Students' and to utilize the survey instrument used in this study in the manner described above. The survey can probably be used "as is", except that the term "nurses" will need to be substituted for the term "practicing physical therapists".
APPENDIX D

Sample cover letter
Dear Physical Therapist,

We are graduate physical therapy students in our final year at Grand Valley State University. We would greatly appreciate if you could spend approximately twenty minutes reading and completing the following survey which is part of our Master’s research project.

In order for the study to be valid, all participants must meet the following criteria: employed as physical therapists for at least five consecutive years after graduation at an APTA accredited school, and having served as a clinical instructor for one full clinical affiliation. If there is more than one person at your institution meeting these requirements and willing to participate in this study, duplication of the questionnaire is encouraged and would help this study’s results to be generalized more accurately. If you have additional questions or comments, please feel free to address them on the back of the survey forms.

Your institution has been chosen randomly from all JCAHCO accredited hospitals of 150 beds or less nationwide. We would like you to share with us to what degree you place value on the personality traits listed on the enclosed survey. Your answers should reflect the setting you are currently employed in, to the capacity you feel would promote quality health care delivery, and to the betterment of the physical therapy profession. Your answers may be helpful in identifying what is desired clinically of physical therapists, possibly providing direction for pre-professional guidance, school curricula or recruitment activities.

You are assured of complete confidentiality. You may receive a copy of the results by including a self addressed stamped envelope with the return of this survey. Please do not put address information on the survey itself. We ask that the survey be returned by Thursday, January 29, 1994.

We look forward to receiving your questionnaire, and we thank you for your time.

Sincerely,

Jane Toot P.T. PhD.
Acting Director of Health Science

Shiela M. Robison SPT
Rachel K. Seppanen SPT