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CHARACTERISTICS OF EFFECTIVE CLINICAL AND THEORY
INSTRUCTORS AS PERCEIVED BY LPN TO RN STUDENTS AND GENERIC
STUDENTS IN AN ASSOCIATE DEGREE NURSING PROGRAM

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Abstract: The purpose of this research was to compare the characteristics of effective clinical and theory instructors as perceived by LPN to RN students and generic students in an associate degree nursing program. Data were collected from 508 students during the 1996-7 academic year from three NLN accredited associate degree nursing programs. The researcher developed instrument was administered to LPN to RN students in their first semester and to generic students in the third semester of an associate degree nursing program. Although there were no significant differences found between the LPN to RN students and generic students on their perceptions of either effective theory or effective clinical instructor characteristics, there were significant differences between groups on

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several of the individual items. There was also a significant main effect of **ethnicity** on several of the individual items.

Nursing education began under an apprenticeship system with most of the learning carried out at the bedside under the supervision of the more experienced nurse. Nursing students were viewed as workers, adhering to established rules and regulations (**Infante**, 1975).

Although opposed by both academic and medical groups and even some nurses, movement for nursing education at the **university** level began slowly, and courses for nurses began at the State University of Minnesota in 1909 (Stewart, 1949). However, as late as 1950, approximately 85% of students enrolled in nursing programs attended hospital schools of nursing. Although many of these students affiliated with nearby universities or colleges for basic science courses, student nurses were still used as apprentices with limited clinical education supervision.

In 1955, the first program for technical education in nursing was started under the direction of **Mildred Montag**, Professor of Nursing Education, Teachers College, Columbia University. Two primary factors spurred this movement into the community colleges: (a) recognition that the present system of nursing education had failed to produce the quantity and quality of nurses required to meet the post World War II demand, and (b) increased development and enrollment of junior-community colleges (Montag, 1959). Associate degree nursing programs currently enroll approximately 50% of nursing students in the United States. The number of licensed practical nurses (**LPNs**) returning to the community college for the

associate degree to enable registered nurse (RN) licensure is increasing yearly (NLN, 1995).

Restructuring of health care delivery systems has moved toward eliminating the position of the licensed practical nurse in favor of the registered nurse/nursing assistant dyad (Christensen & Bender, 1994). Although the LPN has previous experience in providing patient care, in some instances nursing faculty do not consider this previous experience when planning theory and clinical instruction.

There is currently no research comparing perceptions of effective clinical and theory instructors by the LPN to RN student and the generic nursing student in associate degree nursing programs.

Statement of the Problem

The purpose of this study was to compare the characteristics of effective clinical and theory instructors as perceived by LPN to RN students and generic students in an associate degree nursing program. For the purpose of this study, the following definitions were used:

Generic nursing student: A student enrolled in an associate degree nursing program who is not a licensed practical nurse (LPN).

Licensed practical nurse: A nurse who has received practical nursing education and is licensed in the state as a LPN.

LPN to RN student: A student enrolled in an associate degree nursing program who holds a Florida LPN license.

Research Questions

The following research questions were addressed

1. Are there differences in perceptions of characteristics of effective clinical instructors in nursing between LPN to RN students and generic students in an associate degree nursing program? These characteristics were identified under five broad categories interpersonal relationships, personality traits, teaching practices, knowledge and experience, and evaluation procedures. Further items characteristic of effective clinical instructors were identified in the instrument under each broad category (page 25).

2. Are there differences in perceptions of characteristics of effective theory instructors in nursing between LPN to RN students and generic students in an associate degree nursing program? These characteristics were identified under five broad categories: interpersonal relationships, personality traits, teaching practices, knowledge and experience, and evaluation procedures. Further items characteristic of effective theory instructors were identified in the instrument under each broad category (page 26).

3. Are there differences in perceptions of characteristics of effective theory instructors in nursing and effective clinical instructors in nursing between LPN to RN students and generic students based upon student age, gender, and ethnicity?

Review of Literature

Among the current trends impacting the need for effective instruction in nursing are (a) changes in nursing curricula based upon economic factors and health care reform measures, (b) public pressure forcing **healthcare** providers to be more accountable for their actions, (c) collective bargaining issues, (d) promotion and tenure, and (e) student “consumerism,” as students increasingly insist that they receive high **quality** instruction (Wood, 1987; Bevis &

Watson, 1989).

The impact of the instructor in promoting student learning is well documented (Bridgman, 1953; **Infante**, 1985; Taylor, 1941). The effective instructor in nursing must possess effective interpersonal and communication skills, professional nursing competence, and an understanding of adult learning. A review of the literature supported the impact of effective and ineffective teaching behaviors on nursing students in the development of cognitive, affective, and psychomotor skills within the clinical experience.

Since 1926, a variety of methods have been used to evaluate teaching effectiveness. Extensive research spanning seventy years has established agreement on what constitutes effective teaching (**Gien**, 1991). What has also been recognized is the complexity of evaluation, and the recognition that no universal criterion of effective teaching has been developed. Research on effective clinical and classroom instruction in nursing emerged in the 1960's. The complexity of the teaching-learning process and the highly technical milieu in which clinical experiences are provided made consistency in research difficult. However, as studies on characteristics of effective instructors continued through the 1980's, a consensus on these characteristics began to emerge (**Barham**, 1965; Jacobson, 1966; **Infante**, 1975; Morgan & Knox, 1987). Previous studies cited differing methods used to identify important teacher characteristics in the clinical and theory setting. A synthesis from various studies indicated agreement on the essential dimensions of nursing instruction: interpersonal skills, professional nursing competence, adult instructional and evaluation skills, and communication skills. The instructor who demonstrated the above characteristics may decrease student anxiety during the

clinical experience and reinforce classroom learning in the clinical setting (Jarski, et al., 1989; Kirschling et al., 1990; Morgan & Knox, 1986; Reilly & Oermann, 1992). Most of the research over the past thirty years has been conducted on baccalaureate nursing faculty and students supporting the findings that teaching effectiveness in nursing is a multidimensional construct encompassing both personal and professional characteristics. No previous research has been conducted comparing perceptions of effective clinical and theory instructors between LPN to RN students and generic students in an associate degree nursing program. Considering that associate degree nursing programs enroll approximately 50% of nursing students in the United States (NLN, 1995) with the numbers of LPNs enrolled increasing each year, this study is especially relevant.

In addition to increasing enrollment in associate degree programs, several additional factors make this study relevant: (a) the large number of adults continuing to enroll in associate degree nursing programs (NLN, 1995), (b) the call for changes in nursing education from the behaviorist model to participatory learning (Bevis, 1988), (c) the expanding of clinical experiences from acute care settings to include community-based experiences (Tanner, 1994), (d) the expanding definition of nursing faculty to include expert clinical preceptors (Tanner, 1994), (e) the lack of research on perceptions of part time faculty in nursing education, and (f) the emphasis of associate degree programs on attaining technical skills rather than on professionalism and good role modeling (Sieh & Bell, 1994).

Methodology

The purpose of this study was to compare the characteristics of effective clinical and

theory instructors as perceived by LPN to RN students and generic students in an associate degree nursing program. The methodology for this study included the administration of a researcher developed instrument to LPN to RN students and generic students currently enrolled in associate degree nursing programs. The instrument was administered to LPN to RN students in their first semester and to generic students in the third semester of an associate degree nursing program. Both groups of students had completed two semesters of clinical and theory instruction either in an LPN program or generic associate degree nursing program prior to administration of the instrument. Administration of this instrument was done to compare perceptions of characteristics of effective clinical and theory instructors between the two groups of students.

Subjects

Subjects for the study were selected from a convenience sample of students currently enrolled in the first semester of the LPN to RN one-year associate degree nursing program and generic nursing students beginning their third semester in the same associate degree nursing program. The study was conducted in three National League for Nursing accredited Associate degree nursing programs. The programs were located within large, multi-campus, urban community colleges.

Instrument

The researcher developed two instruments based upon the review of the literature to collect study data. The Whitehead Characteristics of Effective Theory Instructors Rating Scale (WCETIRS) was composed of 37 items characteristic of effective theory instructors. The Whitehead Characteristics of Effective Clinical Instructors Rating Scale (WCECIRS) was

composed of 37 items characteristic of effective clinical instructors. Based upon a review of the literature items in both instruments were placed under one of five headings: (a) interpersonal relationships, (b) personality traits, (c) teaching practices, (d) knowledge and experience, and (e) evaluation procedures.

The **WCETIRS** and **WCECIRS** were comprised of declarative statements to be measured using a Likert scale with categories of significance ranging from 1 to 5: 1 = not important 2= least important; 3 = no opinion; 4 = **important**; 5 = most important. Respondents were asked to indicate the number of the scale that best reflected the importance of that particular characteristic. An optional open-ended comment area was **included** at the end of each questionnaire to allow for any information that the respondents wished to add. Proposed time for subject completion of the both questionnaires and the demographic data sheet was 15-20 minutes. The **WCECIRS** and **WCETIRS** are found on pages 25 and 26.

The **researcher** developed instruments were reviewed by the University Research Committee and approved for research involving human subjects. Field-testing of the instruments to establish clarity and reliability was done using the test-retest format. The data collected from each field-study group were compiled and analyzed for reliability using **Cronbach** alpha statistics. Field study reliability for both instruments **indicated** $\alpha > .70$.

The retest portion of the field-test was conducted approximately two weeks after the initial administration of the survey instruments. The same process was followed in administering both sets of instruments. Students were requested to answer the questions as if they were answering for the **first** time and not to try and recall the answers from the initial

WHITEHEAD CHARACTERISTICS OF EFFECTIVE THEORY INSTRUCTORS RATING SCALE

Interpersonal Relationships

- | | | | | | |
|--------------------------------------------------------------|---|---|---|---|---|
| 1. Demonstrates open and honest communication with students. | 5 | 4 | 3 | 2 | 1 |
| 2. Conveys to student that teacher is concerned about them. | 5 | 4 | 3 | 2 | 1 |
| 3. Clearly communicates expectations. | 5 | 4 | 3 | 2 | 1 |
| 4. Is readily accessible to students. | 5 | 4 | 3 | 2 | 1 |
| 5. Demonstrates concern and empathy. | 5 | 4 | 3 | 2 | 1 |
| 6. Is sensitive to students' needs and feelings. | 5 | 4 | 3 | 2 | 1 |
| 7. Demonstrates flexibility in dealing with students. | 5 | 4 | 3 | 2 | 1 |
| 8. Provides support and encouragement. | 5 | 4 | 3 | 2 | 1 |
| 9. Recognizes individuality of students. | 5 | 4 | 3 | 2 | 1 |
| 10. Respects confidentiality of student relationship. | 5 | 4 | 3 | 2 | 1 |

Personality Traits

- | | | | | | |
|--------------------------------------|---|---|---|---|---|
| 1. Demonstrates enthusiasm. | 5 | 4 | 3 | 2 | 1 |
| 2. Accepts criticism constructively. | 5 | 4 | 3 | 2 | 1 |
| 3. Is organized. | 5 | 4 | 3 | 2 | 1 |
| 4. Is energetic. | 5 | 4 | 3 | 2 | 1 |
| 5. Demonstrates a sense of humor. | 5 | 4 | 3 | 2 | 1 |
| 6. Is willing to admit a mistake. | 5 | 4 | 3 | 2 | 1 |
| 7. Presents a neat appearance. | 5 | 4 | 3 | 2 | 1 |

Teaching Practices

- | | | | | | |
|-----------------------------------------------------------------------|---|---|---|---|---|
| 1. Encourages independent thinking and learning | 5 | 4 | 3 | 2 | 1 |
| 2. Organizes class in a manner that is meaningful to students | 5 | 4 | 3 | 2 | 1 |
| 3. Communicates content clearly. | 5 | 4 | 3 | 2 | 1 |
| 4. Demonstrates flexibility related to course planning and evaluation | 5 | 4 | 3 | 2 | 1 |
| 5. Is creative and stimulating in class. | 5 | 4 | 3 | 2 | 1 |
| 6. Has a speaking voice conducive to learning. | 5 | 4 | 3 | 2 | 1 |
| 7. Assignments are appropriate to objectives. | 5 | 4 | 3 | 2 | 1 |
| 8. Presents material not found in readings. | 5 | 4 | 3 | 2 | 1 |
| 9. Uses instructional media purposefully. | 5 | 4 | 3 | 2 | 1 |

Knowledge and Experience

- | | | | | | |
|------------------------------------------------------------|---|---|---|---|---|
| 1. Demonstrates enthusiasm for topic. | 5 | 4 | 3 | 2 | 1 |
| 2. Demonstrates depth of knowledge related to topic. | 5 | 4 | 3 | 2 | 1 |
| 3. Displays confidence in ability as a professional nurse. | 5 | 4 | 3 | 2 | 1 |
| 4. Cites current research related to topic. | 5 | 4 | 3 | 2 | 1 |
| 5. Performs as a positive role model. | 5 | 4 | 3 | 2 | 1 |
| 6. Makes student aware of professional responsibility. | 5 | 4 | 3 | 2 | 1 |

Evaluation Procedures

- | | | | | | |
|---------------------------------------------------------------------|---|---|---|---|---|
| 1. Provides useful and timely feedback. | 5 | 4 | 3 | 2 | 1 |
| 2. Demonstrates objectivity and fairness in evaluation of students. | 5 | 4 | 3 | 2 | 1 |
| 3. Reviews tests with students. | 5 | 4 | 3 | 2 | 1 |
| 4. Demonstrates concern with learning rather than testing. | 5 | 4 | 3 | 2 | 1 |
| 5. Gives tests that reflect course objectives. | 5 | 4 | 3 | 2 | 1 |

Additional Comments: **Your** additional comments are welcome. Please use the back **sides** of the instrument if you wish to make additional comments regarding characteristics of effective theory instructors.

WHITEHEAD CHARACTERISTICS OF EFFECTIVE CLINICAL INSTRUCTORS RATING SCALE

Interpersonal Relationships

- | | | | | | |
|---------------------------------------------------------------------|---|---|---|---|---|
| 1. Demonstrates open and honest communication with students. | 5 | 4 | 3 | 2 | 1 |
| 2. Conveys to student that teacher is concerned about them. | 5 | 4 | 3 | 2 | 1 |
| 3. Clearly communicates expectations. | 5 | 4 | 3 | 2 | 1 |
| 4. Is readily accessible to students. | 5 | 4 | 3 | 2 | 1 |
| 5. Demonstrates concern and empathy. | 5 | 4 | 3 | 2 | 1 |
| 6. Is sensitive to students' needs and feelings. | 5 | 4 | 3 | 2 | 1 |
| 7. Demonstrates flexibility in dealing with students. | 5 | 4 | 3 | 2 | 1 |
| 8. Provides support and encouragement. | 5 | 4 | 3 | 2 | 1 |
| 9. Recognizes individuality of students. | 5 | 4 | 3 | 2 | 1 |
| 10. Respects confidentiality of student relationship. | 5 | 4 | 3 | 2 | 1 |
| 11. Promotes self-confidence in student. | 5 | 4 | 3 | 2 | 1 |

Personality Traits

- | | | | | | |
|------------------------------------------|---|---|---|---|---|
| 1. Demonstrates enthusiasm. | 5 | 4 | 3 | 2 | 1 |
| 2. Accepts criticism constructively. | 5 | 4 | 3 | 2 | 1 |
| 3. Is organized. | 5 | 4 | 3 | 2 | 1 |
| 4. Is energetic. | 5 | 4 | 3 | 2 | 1 |
| 5. Demonstrates a sense of humor. | 5 | 4 | 3 | 2 | 1 |
| 6. Is willing to admit a mistake. | 5 | 4 | 3 | 2 | 1 |
| 7. Presents a neat appearance. | 5 | 4 | 3 | 2 | 1 |

Teaching Practices

- | | | | | | |
|--------------------------------------------------------------|---|---|---|---|---|
| 1. Clinical assignments relate to course objectives. | 5 | 4 | 3 | 2 | 1 |
| 2. Alleviates student anxiety in the clinical area. | 5 | 4 | 3 | 2 | 1 |
| 3. Demonstrates genuine interest in patients and their care. | 5 | 4 | 3 | 2 | 1 |
| 4. Expectations are clearly defined. | 5 | 4 | 3 | 2 | 1 |
| 5. Provides appropriate and timely feedback. | 5 | 4 | 3 | 2 | 1 |
| 6. Remains with student during stressful times. | 5 | 4 | 3 | 2 | 1 |
| 7. Student feels free to ask questions or ask for help. | 5 | 4 | 3 | 2 | 1 |

Knowledge and Experience

- | | | | | | |
|-------------------------------------------------------------------------------------|---|---|---|---|---|
| 1. Identifies basic principles of nursing practice. | 5 | 4 | 3 | 2 | 1 |
| 2. Demonstrates technical skill in nursing. | 5 | 4 | 3 | 2 | 1 |
| 3. Makes student aware of professional responsibility. | 5 | 4 | 3 | 2 | 1 |
| 4. Communicates knowledge to students. | 5 | 4 | 3 | 2 | 1 |
| 5. Is well informed in area of clinical practice. | 5 | 4 | 3 | 2 | 1 |
| 6. Displays confidence in ability as a professional nurse. | 5 | 4 | 3 | 2 | 1 |
| 7. Helps student identify alternatives in providing safe and effective care. | 5 | 4 | 3 | 2 | 1 |
| 8. Demonstrates a willingness to help. | 5 | 4 | 3 | 2 | 1 |
| 9. Performs as a positive role model. | 5 | 4 | 3 | 2 | 1 |

Evaluation Procedures

- | | | | | | |
|-------------------------------------------------------------------------|---|---|---|---|---|
| 1. Allows student an opportunity to practice before evaluating . | 5 | 4 | 3 | 2 | 1 |
| 2. Demonstrates objectivity and fairness in evaluation of students. | 5 | 4 | 3 | 2 | 1 |
| 3. Offers constructive criticism without devaluing student. | 5 | 4 | 3 | 2 | 1 |
| 4. Demonstrates concern with learning rather than testing. | 5 | 4 | 3 | 2 | 1 |
| 5. Gives credit for a job well done. | 5 | 4 | 3 | 2 | 1 |

Additional Comments: Your additional comments are welcome. Please use the back sides of the instrument if you wish to **make** additional comments regarding **characteristics** of effective clinical instructors.

instruments. Data from the retest sessions were correlated with the initial test data calculating Pearson correlation coefficients. Correlations were significant $p < .01$ (2-tailed) with $r > .70$ for both instruments.

Content validity of each instrument was evaluated by having six master's prepared nursing faculty review the final instruments for clarity, relevancy of each item to the purpose of the study, and inclusion of adequate items related to each research topic. There were no additions or corrections from the faculty experts. Comments from the panel of experts indicated that the instruments were clear, appropriate, and related to the study and the research questions.

Design

A causal-comparative study was conducted to compare characteristics of effective clinical and theory instructors as perceived by LPN to RN students and generic students in an associate degree nursing program. Causal-comparative studies attempt to identify a cause and effect relationship. However, unlike true experimental research, the independent variable cannot be manipulated (Gay, 1996). This causal comparative design selected two groups differing on the independent variable, LPN to RN students or generic students, and compared their perceptions of effective clinical and theory instructors.

In addition to the researcher's inability to randomize subjects and manipulate the independent variable, there was the possibility that the groups differed on other variables than the identified independent variable. These differences may be the real cause of the differences between the groups (Gay, 1996). In this study there was a possibility that students with experience in the health care field prior to returning to school viewed clinical and theory

instruction differently than students who had no previous **healthcare** work experience. Cultural and ethnic differences between students and faculty could also have accounted for differences in perceptions.

Study participants had previously completed two semesters clinical and theory instruction in a nursing program either while **enrolled** in a one-year LPN program or in the first year of a generic associate degree nursing program. Students participating in the study had met the following prerequisites prior to admission to the associate degree nursing program minimum GPA 2.0 and a one semester college **level** anatomy and physiology course.

Data Collection

The investigator requested to personally administer the questionnaire to students who were enrolled in the first semester of the LPN to RN program and generic students **who** were enrolled in the third semester of the same program. This time frame was selected in order to survey students who had experience with theory and clinical instructors in nursing, yet prior to the courses where students were assigned preceptors for the majority of the clinical experience. With faculty permission, the investigator presented the questionnaire to the subjects at the beginning of the classes in which the students were enrolled. The investigator presented a brief description of the purpose of the study. Students were given the choice of whether or not to participate in the study. Instructions for completing the questionnaire were given verbally by the investigator and in writing attached to the questionnaire. Completed questionnaires were placed in manila envelopes, sealed, and placed in a larger manila envelope. This **large** envelope was sealed and collected by the investigator. The completed questionnaire was considered as the

subject's consent to participate in the study.

Analysis of Data

Data were analyzed using a one-factor **multivariate** analysis of variance (MANOVA). According to Stevens (1990, p. 73): "If treatments affect the dependent variables in different ways, and the dependent variables are at least moderately correlated within groups, the **multivariate** approach will be quite **powerful** and can detect differences that the **univariate** tests cannot."

Results

The means and standard deviations, frequencies and percentages were tabulated for the demographics by type of student for the five categories and for each individual statement under a category for LPN to RN and generic students using the SPSS for Windows 95 computer program. The highest possible mean score an item could receive was a 5.0 (most important). One factor **multivariate** analyses of variance (MANOVA) were calculated for both instruments for the five categories by type of student. Further **t** tests were performed in order to compare the means by type of student and for each individual item. **Chi-square** tests were used to compare the demographic variables by type of student. Additional tests on the five category scores for both instruments were performed using two factor **MANOVAs** (type of student by age and type of student by **ethnicity**) followed by two factor **univariate** ANOVAs, and where significant, Tukey's pairwise comparison tests carried out the .05 level. For this study, the test results were considered statistically significant at the .05 **level**. Potential differences for further study considerations were explored at the .10 significance level.

Analysis of the Population

Data were collected for 508 students during the 1996-7 academic year. Eighty-two percent (n= 415) of the students enrolled were generic students and 18% (n =93) were LPN to RN students. Table 1, on the following page, presents demographic data regarding gender, age, and ethnicity for student responses by type of student. Although data were collected for 508 students, the number of student responses in the various tables may not represent the total number of students, as not all students entered responses in all categories.

A cross tabulation of ethnicity by type of student yielded $\chi^2(4, N = 490) = 29.58, p < .001$, indicating a significant difference in the distribution of ethnicity between the two groups. In comparing the ethnicity of the LPN to RN students and generic students there were 41% Black LPN to RN students (n= 36) but only 17% (n= 68) generic students. White non-Hispanic students accounted for 65% n = 262) of the generic students but only 38% (n= 33) of the LPN to RN students.

Eighty-eight percent of the students responding were under 41 years of age. The results of a cross tabulation of age by type of student yielded $\chi^2(4, N = 504) = 12.00, p < .002$, indicating that a significant relationship existed between these two variables. LPN to RN students were older than the generic students with nearly one-fourth (24.8%) of LPN to RN students responding being 41 or older but only 14.8% of generic students 41 or older.

Ninety-nine percent of the LPN to RN students (n = 92) were employed in healthcare prior to beginning their nursing program with 100% (n = 93) of them working as LPNs. Ninety-one percent of the LPN to RN students (n = 85) were currently employed in health care with

Table 1

Demographic Profile of Students

Characteristic	<u>LPN to RN</u>		<u>Generic</u>	
	n	%	n	%
Gender (n= 504)				
Female	90	96.8	342	83.2
Male	3	3.2	69	16.8
Total	93	100.0	411	100.0
Age (n= 504)				
20-30	28	30.1	198	48.2
31-40	42	45.2	152	37.0
41-50	22	23.7	56	13.6
51-60	1	1.1	4	1.0
Over 60	0	0.0	1	0.2
Total	93	100.0	411	100.0
Ethnicity (n = 490)**				
American Indian/Alaskan	1	1.1	6	1.5
Asian/Pacific Islander	4	4.5	13	3.2
Black, Non Hispanic	36	40.9	68	16.9
Hispanic	14	15.9	53	13.2
White, other than Hispanic	33	37.5	262	65.2
Total	88	99.9	402	100.0

*The categories for **ethnicity** were those identified on the admission application for the Florida Community Colleges.

94% employed as LPNs (n= 87). Only 47% percent (n = 194) of the generic students had prior employment in **healthcare**. Thirty-one percent (n = 61) of these students were nursing assistants and 16% (n = 31) were medical assistants. Phlebotomists, EKG technicians and clerical/receptionist positions accounted for 21% (n = 42) of the generic students. Of the 32% generic students (n =63) who indicated “other”, the most common careers were respiratory therapists, emergency medical technicians or paramedics. Fifty-one percent (n = 199) of the generic students were currently employed in **healthcare**. Twenty-seven percent (n = 112) were employed as nursing assistants and 57% (n= 63) continue to be employed as respiratory therapists, emergency medical technicians or paramedics. The remaining 14% (n= 27) of the generic students were employed as **phlebotomists**, EKG technicians or clerical.receptionists. The results of a **crosstabulation** of work history in **healthcare** by type of student yielded $\chi^2(4, \underline{N} = 504) = 82.66$, $p <.001$. The results of a cross-tabulation of current employment in **healthcare** by type of student yielded $\chi^2(7, \underline{N} = 504) = 497.42$, $p <.001$. A significant relationship existed between type of student and each of these work history variables. Since LPNs have the option of enrolling in either the generic program or the accelerated LPN to RN track, there was one student in the generic track who had past employment as an LPN and three students in the generic track who were currently employed as LPNs.

Analysis of the Research Data

The first research question was: Are there differences in perceptions of characteristics of effective clinical instructors in nursing between LPN to RN students and generic students in an associate degree nursing program? The second research question was: Are there differences in

perceptions of characteristics of effective theory instructors in nursing between LPN to RN students and generic students in an associate degree nursing program? The third research question was: Are there differences in perceptions of characteristics of effective theory instructors in nursing and effective clinical instructors in nursing between LPN to RN students and generic students based upon student age, gender, and ethnicity.

The LPN to RN students and generic students ranked the importance of the five categories on the Whitehead Characteristics of Effective Theory Instructors Rating Scale (WCETIRS) in the same order: (a) evaluation procedures as most important, followed by (b) knowledge and experience, (c) interpersonal relationships, (d) teaching practices, and (e) personality traits (Table 2, page 34). The order of rankings of the five categories of the Whitehead Characteristics of Effective Clinical Instructors Rating Scale (WCECIRS) was different for the LPN to RN students (Table 3, page 35) and generic students (Table 4, page 35). Although the differences were small, the LPN to RN students ranked knowledge and experience as most important ($\underline{M} = 4.70$) and evaluation procedures as second ($\underline{M} = 4.63$) for this survey while the generic students ranked evaluation procedures as most important ($\underline{M} = 4.67$) and knowledge and experience second ($\underline{M} = 4.66$). For both groups, the rankings of the importance of the remaining categories were the same: (c) teaching practices, (d) interpersonal relationships, and (e) personality traits. In the following tables the number of students responding may differ from the total number of students surveyed as not all students responded to each item on the survey. Responses were evaluated individually based upon the students that responded.

Table 2

Means and Standard Deviations of Characteristics of **Effective** Theory Instructors
for LPN to RN Students ($n = 93$) and Generic Students [$n = 413$]

Category	LPN to RN	Generic	t	D-value
Evaluation Procedures				
Mean	4.50	4.57	-1.31	.190
Standard Deviation	0.66	0.48		
Knowledge and Experience				
Mean	4.44	4.45	-0.22	.825
Standard Deviation	0.49	0.46		
Interpersonal Relationships				
Mean	4.38	4.37	0.12	.908
Standard Deviation	0.59	0.56		
Teaching Practices				
Mean	4.37	4.36	0.21	.825
Standard Deviation	0.55	0.49		
Personality Traits				
Mean	4.28	4.23	0.85	.396
Standard Deviation	0.54	0.53		

Table 3

Means and Standard Deviations of Characteristics of Effective Clinical Instructors for LPN to
RN Students (n = 91)

<u>Category</u>	<u>Rank</u>	<u>M</u>	<u>SD</u>	<u>t</u>	<u>v-value</u>
Knowledge and Experience	1	4.70	0.41	0.86	.382
Evaluation Procedures	2	4.63	0.50	-0.83	.409
Teaching Practices	3	4.60	0.55	-0.60	.549
Interpersonal Relationships	4	4.51	0.56	-0.31	.755
Personality Traits	5	4.42	0.51	0.80	.422

Table 4

Means and Standard Deviations of Characteristics of Effective Clinical Instructors for Generic
Students (n = 409)

<u>Category</u>	<u>Rank</u>	<u>M</u>	<u>SD</u>	<u>t</u>	<u>u-value</u>
Evaluation Procedures	1	4.67	0.46	-0.83	.409
Knowledge and Experience	2	4.66	0.48	0.86	.382
Teaching Practices	3	4.63	0.47	-0.60	.549
Interpersonal Relationships	4	4.53	0.53	-0.31	.755
Personality Traits	5	4.37	0.53	0.80	.422

To compare LPN to RN students to generic students, two one-way MANOVAs were performed on the five theory and the five clinical categories. For the five theory categories, Wilk's lambda of .99 resulted in $F(5, 500) = 1.24$, $p < .289$, which was not statistically significant. For the clinical categories, Wilk's lambda .98 resulted in $F(5, 494) = 1.76$, $p < .119$,

which was not statistically significant. Therefore, LPN to RN students did not differ from generic students on their perceptions of either effective theory or effective clinical instructor characteristics. No statistically significant differences were found between LPN to RN and generic students on any of the five major categories for either of the two instruments.

There were several items on the WCETIRS which suggested the two groups of students differed. LPN to RN students rated the item “Presents a Neat Appearance” under the category of Personality Traits as \underline{M} = 4.21 (between most important and important) while generic students rated it lower, \underline{M} = 3.78, \underline{p} = .001. Under the category Teaching Practices, the item “Communicates Content Clearly” had a mean importance rating of 4.78 by generic students but only \underline{M} = 4.59 by LPN to RN students, \underline{p} < .005. Also under the category Teaching Practices the item “Assignments are Appropriate to Objectives” showed a marginally significant difference between groups with LPN to RN students mean importance rating at 4.64. This was higher than the generic students mean importance rating at 4.50, \underline{p} < .065.

The item “Gives Tests That Reflect Course Objectives” under the category Evaluation Procedures also showed a marginally significant difference between groups with LPN to RN students mean importance rating at 4.69, higher than the generic students at \underline{M} = 4.55, \underline{p} < .079. The WCECIRS revealed a statistically significant item at the \underline{p} < .05 level. The item “Presents a Neat Appearance” under the category Personality Traits was rated higher by the LPN to RN students, \underline{M} = 4.47 than the generic students \underline{M} = 4.16, \underline{p} < .002. One item revealed marginal significance. Under the category Interpersonal Relationships, the item “Provides Support and Encouragement,” had a mean importance rating for the LPN to RN students of 4.47 while the generic students rated the item as more important, \underline{M} = 4.62, \underline{p} < .055.

Age and Ethnicity

Age and ethnicity distributions differed by student group, with generic students being younger, and more likely to be White, non-Hispanic. Further analyses were performed to take these differences into account. Two-way MANOVAs were calculated on the category means by group and age and by group and ethnicity to see if groups differed after differences due to age and ethnicity were removed. Recoding of the age and ethnicity variables were done in order to have large enough samples in each cell. Age was regrouped into three categories: 20-30; 31-40, 41 and older (Table 5). Only the three major ethnic categories were addressed White, non-Hispanic; Black; and Hispanic. (Table 6).

Table 5

Demographic Data Recoded for Age for LPN to RN (n = 93) and Generic Students (n = 411)

<u>Age</u>	<u>LPN to RN</u>	<u>Generic</u>	<u>Total</u>
20-30	28	198	226
31-40	42	152	194
41+	23	61	84
Total	93	411	504

Table 6

Demographic Data for Ethnicity for LPN to RN (n = 82) and Generic Students (n = 383)

<u>Ethnicity</u>	<u>LPN to RN</u>	<u>Generic</u>	<u>Total</u>
Black	36	68	104
Hispanic	14	53	67
White, non-Hispanic	32	262	294
Total	82	383	465

Group and Age

Theory

The two-way MANOVA on the five theory categories indicated that there was no significant interaction between group and age, $F(10, 984) = 0.55$, $p < .859$. There was not a significant main effect of age, $F(10, 984) = .91$, $p < .521$. After the effects of age were accounted for, the two groups, LPN to RN students and generic students, did not significantly differ across the five theory categories, $F(5, 492) = 1.40$, $p < .223$.

Clinical

The two-way MANOVA on the five clinical categories indicated that there was no significant interaction between group and age, $F(10, 972) = .34$, $p < .969$. There was no significant main effect of age, $F(10, 972) = 1.00$, $p < .438$. After the effects of age were accounted for, the two groups, LPN to RN students and generic students, did not significantly differ across the five clinical categories, $F(5, 486) = 1.90$, $p < .094$. Although the MANOVA

was marginally significant, no main effects of group were significant in the univariate ANOVAs.

Group and Ethnicity

Theory

The two-way MANOVA on the five theory categories indicated that there was a marginally significant interaction between group and ethnicity, $F(10, 908) = 1.59, p < .102$. Therefore the univariate interactions were examined for each category separately. On the WCETIRS the category Teaching Practices showed significant interaction between group and ethnicity, $F(2, 458) = 3.35, p < .036$. Tukey's post hoc tests carried out at the .05 significance level showed that Black generic students rated the category Teaching Practices more important ($M = 4.62$) than Black LPN to RN students ($M = 4.37$). Hispanic generic students ($M = 4.56$) also rated the category Teaching Practices more important than Hispanic LPN to RN students ($M = 4.30$). However, no significant differences were noted between generic and LPN to RN White, non-Hispanic students, $M = 4.32$ (Figure 1).

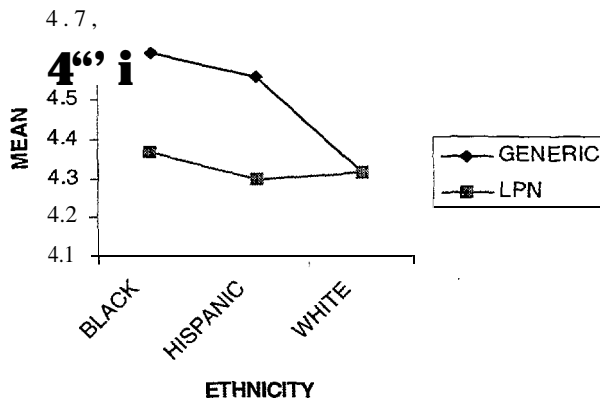


Figure 1

The **multivariate** main effect of **ethnicity** was not significant, $F(10, 908) = 1.16, p < .315$. After the effects of **ethnicity** were accounted for, the two groups, LPN to RN students and generic did not significantly differ across the five theory categories, $F(5, 454) = 0.72, p < .605$.

Clinical

The two-way MANOVA on the five clinical categories indicated that there was no significant interaction between group and ethnicity on the five **clinical** categories, $F(10, 898) = 0.59, p < .821$. There was not a significant main effect of ethnicity $F(10, 898) = 0.94, p < .498$. After the effects of age were accounted for, the two student groups, LPN to RN and generic, did not significantly differ across the five clinical categories, $F(5, 449) = 1.07, p < .375$.

Additional Findings

Although there was no main effect of **ethnicity** in the two-way MANOVA for clinical or theory categories, **several** interesting **univariate** ANOVA were found to be significant. The item "Presents a Neat Appearance," under the category Personality Traits had a significant main effect of **ethnicity**, $F(2, 457) = 4.32, p < .014$ with Black students ($M = 4.27$) rating it significantly higher than Hispanic students ($M = 3.93$) or White students ($M = 3.87$) using Tukey's post hoc test. Under the category Teaching Practices, item "Assignments Are Not Appropriate to Objectives," there was a significant main effect of ethnicity $F(2, 458) = 4.05, p < .018$, with Black students ($M = 4.72$) rating it significantly higher than Hispanic students ($M = 4.66$) or White students ($M = 4.47$).

Conclusions

The results indicated that the differences of LPN to RN students and generic students as

noted from their responses to effective theory and clinical nursing instructor characteristics were not statistically significant. Although the findings suggested that there was no statistical significance between the perceptions of characteristics of effective clinical and theory instructors in nursing between the LPN to RN students and generic students, the study supported past research which identified the characteristics of effective nursing instructors in theory and clinical.

The differences between the means and standard deviations on both instruments were small, suggesting that all of the characteristics listed for effective theory and clinical instructors were important to both groups of students. Although the rankings of the five categories for the effective clinical instructor were slightly different between the LPN to RN students and generic student, both groups of students rated highly the need for both the clinical and theory instructor to be knowledgeable, have experience in their field, and demonstrate fair evaluation procedures.

The generic student identified greater need than the experienced LPN to RN student in the areas of “provides support and encouragement” and “communicates content clearly”. In order to maneuver around the healthcare system the student must learn a new language and behaviors, where support, encouragement, and clear communication of expectations is important. Conversely, the working LPN identified as significant that the instructor adhere to the objectives in teaching and testing. Past experience in LPN programs as an adult learner could impact the LPN to RN student’s needs. The importance of the RN as role model was significant to the LPN to RN student, assisting the LPN to make the transition to professional nursing.

Although this study was concerned with student perceptions and the relationship of student ethnicity to the research questions, the ethnicity of the instructor could also influence perceptions of different students.

Recommendations

A review of the literature and the research findings suggest the following recommendations:

1. College administrators **should** assist faculty to understand the adult learner and assist faculty in planning curriculum appropriate to adults.
2. Nursing faculty should develop teaching techniques to assist learning methods of ethnically diverse students.
3. Nursing faculty should recognize the individual needs of the LPN to RN students and generic student.
4. The importance of the faculty member as role model should be specifically emphasized.

Implications for Future Research

The results of this study suggest the following implications for future research:

1. In order to increase the **generalizability** of these results, the study should be repeated with a larger sample, especially of LPN to RN students. Students from **smaller**, rural community colleges should also be included.
2. Compare faculty and student perceptions of effective characteristics of theory and clinical instructors in associate degree programs using the same instrument.
3. Explore the characteristics of the faculty member as role model for LPN to **RN** students and generic students in associate degree nursing programs and for faculty members as role models in associate degree nursing programs versus baccalaureate nursing programs.
4. The use of survey instruments in identification of characteristics of effective nursing

instructors has been demonstrated. Future research utilizing a qualitative method might focus on observations and interviews of theory and clinical instructors.

5. Explore with students their experiences involving nursing instructors or ask students to describe their ideal instructor.

6. Develop evaluation methods for nursing theory and clinical instructors that identify the important effective behaviors associated with classroom and clinical instruction.

7. Explore the role that cultural diversity and adult learning theories have in planning teaching strategies.

8. Attempt to obtain a more “pure” generic student, one without previous experience in health care.

Nursing faculty need to be aware of the qualities that students identify as characteristics of effective theory and clinical instructors. Nursing faculty who support the theories of adult learning will recognize the need to support the perceptions of students in planning instructional strategies. The need for effective nursing instructors and role models are imperative as nursing establishes a position in the 21st century health care system.

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