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A Study Of The Relationship Between Self-Esteem And State Board Scores Of Senior Nursing In A School Of Nursing.

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A STUDY OF THE RELATIONSHIP BETWEEN SELF-ESTEEM
AND STATE BOARD SCORES OF SENIOR NURSING
IN A SCHOOL OF NURSING

Curriculum and Program Planning

RECEIVED

OCT 6 1987

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A practicum presented to Nova University in partial
fulfillment of the requirements for the Degree
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Nova University
October 1987

ABSTRACT

This study investigated the relationship between levels of self-esteem of senior students in a school of nursing and a measure of professional achievement - the National Council Licensure Examination for Registered Nurses (NCLEX-RN). The hypothesis tested was that there would be a significant relationship between scores on the Self-Esteem Index (S.E.I.) and final scores achieved by seniors on the NCLEX-RN. Thirty senior students comprised the research population. The independent variable, self-esteem, was quantified into four categories (negative, low, moderate, high), by using the S.E.I., and the dependent variable was operationalized as the score achieved on the NCLEX-RN. The Pearson Correlation statistic was used to identify the extent to which variations in self-esteem levels corresponded to variations in achievement. The null hypothesis was accepted, since the results of the investigation showed that there was no significant correlation between achievement and levels of self-esteem. However, descriptive findings demonstrated that sixty-eight percent of the students had a negative or low self-esteem, seven students (28%) had moderate self-esteem, and only one student (4%) had a high self-esteem level. It is recommended that (1) the study be replicated to confirm results, and be extended to include a longitudinal measure, (2) continuing education courses be provided to students and faculty regarding increasing women's self-esteem, (3) lecture content integrate information concerning professional achievement and levels of high self-esteem, and (4) research efforts be continued to identify variables that may be predictive of NCLEX-RN success.

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INTRODUCTION

Brockton Hospital School of Nursing offers a three year nursing program, in association with Bridgewater State College. The nursing school is situated in southeastern Massachusetts, approximately twenty seven miles south of Boston. While the nursing school provides the nursing theory and clinical component of the program, Bridgewater State College provides the necessary liberal arts courses necessary to fulfill the State Board of Nursing requirements for professional nursing schools. Each year, this school graduates thirty to forty seniors, believed to be educationally prepared and ready to enter into the profession of nursing.

Nursing is both an art and a science, affected by (1) the increasing technology of the century, (2) the major advancements in the field of medicine, and (3) the increasing emphasis on holistic patient care. In response to this, the nursing profession must educationally prepare an individual with a sound theoretical base, who is clinically competent, responsive to change, a critical decision maker, and a patient advocate. Many factors will influence both this educational process, and the student achievement of these curricular objectives. A student's level of self-esteem has been found to be one of these factors, and is the focus of this study.

In 1980, Ellis stated that "new graduates are not making the impact expected of them on the health care system" (1980:389). She found that lack of self-confidence was one of the factors contributing to students' failure to meet public and professional expectations, and the educational process was also cited as contributing to their downfall. If the inferences from literature are correct, then, the self-concept of these graduating senior students has been altered (enhanced or diminished) by the nursing education they have received, and it may be potentially affecting their achievement. As an educational institution preparing nurses, a comparative analysis of the

self-esteem levels of these graduating seniors to a measure of their academic achievement, would reflect our ability to achieve self-esteem as an educational outcome. Throughout the Curriculum Seminar it has been stressed that educational outcomes are a basis of program evaluation and revision, therefore, this study is appropriate for this seminar, and depending on the results, would set the direction for future curricular revisions for this institution.

The purpose of this study was to investigate the relationship between graduating seniors levels of self-esteem and scores achieved on a measure of professional achievement - the National Council Licensure Examination for Registered Nurses (NCLEX-RN, 1982). More specifically, this correlational study was done to investigate the extent to which scores achieved on the Self-Esteem Index (S.E.I.; Barksdale, 1974) correspond to success rates on the NCLEX-RN. This study is based on the beliefs that (1) with the continuing emergence of nursing as a profession of increasing complexity and skill, it becomes essential to validate educational curricular outcomes to prepare a nurse who is confident as well as competent, both characteristics based on an individual's level of self-esteem, and (2) a student's level of self-esteem affects his/her achievement level.

BACKGROUND AND SIGNIFICANCE

Any study concerning self-esteem and achievement must first begin with an understanding of the interrelationship of the self-concept, self-esteem and sex-role socialization. This understanding then puts achievement, especially womens' achievement, into an appropriate conceptual framework. Since women make up the majority (96-98%) of the professionals working in the nursing field (Muff, 1982), womens' achievement is an important issue - especially for nurse educators. A literature review will be presented to substantiate the five premises which fostered the undertaking of this study. These are (1) women are devalued in our society, (2) the socialization process, sex-role socialization in particular, reinforces this devaluation process, (3) women suffer from low self-esteem and a negative self-concept because of the socialization process, (4) decreased self-concept and self-esteem affects achievement potential in women, and, (5) the profession of nursing, because it is a sex-segregated profession, is effected because of the low self-esteem and negative self-concepts fostered by sex-role socialization in our society. After the documentation for this conceptual framework is reported, research findings regarding the independent variable (self-esteem in nursing students) and the dependent variable (the NCLEX-RN) will be presented.

Conceptual Framework

The terms self, self-concept, and self-esteem have interconnected meanings. The self-concept is an indicator of what people think about themselves, while self-esteem is a barometer of how people feel about themselves. In other words, self-esteem is an emotional filter through which people see themselves (Hamachek, 1985) and is basically, a positive or

negative attitude toward the self (Rosenberg, 1965). A person's perceptions of him/herself are gained through personal experiences and reflections (reflected appraisals) (Sullivan, 1953) from significant others. These significant others are varied and include parents, teachers, peers and even society itself (Weitzman, 1979). The individual, in turn, internalizes these attitudes as true and integrates them into his/her self-concept. Once the self-concept is formed, for better or worse, people strive to be self-consistent and "... any idea entering the [self] system which is inconsistent with the individual's conception of himself cannot be assimilated" (Lecky, 1945:263).

Both self-concept and self-esteem are affected by the external forces of our culture through the socialization process. Socialization is "The learning process through which people acquire socially approved behaviors for their roles or places in society" (Allman, Lord, White, and Clark, 1979:9). Allman describes these roles as "A constellation of behaviors associated with a specific position within a culture" (1979:9). These behavioral expectations are taken for granted, especially where gender issues are concerned. The learning of gender roles is called sex-role socialization. A more formal definition would be "A particular constellation of behaviors associated with being either male or female. Like all role behavior, male and female sex-role behavior is complementary. In other words, when we talk about woman's role, the complementary man's role is implicit (i.e., what woman's isn't, man's is)" (Allman, Lord, White, and Clark, 1979:9).

The problem with the socialization process comes in the form of sexism: "A belief that the human sexes have a distinctive makeup that determines their respective lives. It is based in sex-role stereotypes, and it usually involves the notion that one sex is superior to, and has the right to rule or have advantage over the other" (Allman, Lord, White, and Clark, 1979:9). In this regard, the present patriarchal society inherent in our culture holds two main restrictive images for females: (1) girls, who should be passive, submissive, onlookers who watch brothers and fathers receive praise, and (2) the ideal woman, who is angelic; and an all-giving mother and wife (Lasky, 1982).

Females' Self-Esteem

Lasky equates lower self-esteem in females to the fact that our society (1) sees females as less important than males, (2) gives less social status and respect to the female role than to the male role, and (3) evaluates many female characteristics as having less value than many male characteristics. Since these evaluations are accepted by society at large, "females think of themselves as less valuable and less worthy than men" (1982:52). She bases these conclusions on research studies concerning the developmental aspects of self-esteem. To summarize, the self-esteem of boys and girls begin to differ in the third and fourth grades in school, and by grade twelve, boys' self-esteem were significantly higher than girls' (Fein, 1975). This decreased self-esteem in females continues into adolescence. A study by O'Malley and Bachman (1979) tested a sample of 3183 male and female high school students and found that a greater percentage of girls feel less positive about themselves than boys. Lasky goes one step further and stated that "female self-esteem in our society must necessarily be poor from the moment of birth" (1982:53). She based this comment on four studies which showed (1) 83% preference for boys over girls as the first or only child (Adelman and Rosenzweig, 1978), (2) a greater interval between first and second child, if the first child was a boy (Pohlman, 1969), (3) the likelihood of parents having a third child if the first two children were girls (Pohlman, 1969), and, (4) mothers of girl babies have a significantly higher chance of having a postpartum depression (Gordon and Gordon, 1967).

This same pattern of low self-esteem continues into female adulthood. Lasky (1982) quoted from four studies which demonstrated that more women than men are coded negative or ambivalent in self-perception (Gurin, 1960); college women viewed themselves according to the stereotypic female role (Rosankrantz, 1968); women were more likely to see themselves as irrational, passive and incompetent (Broverman, 1972); and, women feel significantly weaker,

Self-Esteem and Achievement

"Self-esteem and achievement are clearly and unequivocally related. As one would expect, people with high self-esteem achieve more educationally and occupationally than do those with low self-esteem" (Lasky, 1982:48). High self-esteem, however, is not a characteristic usually associated with women. As demonstrated previously, due to the sex-role stereotyping which occurs in our culture, the traditional female role is devalued and therefore the achievement potential of women is being undermined. Caught in a circular pattern, women are taught not to value themselves, and therefore have low self-esteem. This leads to lower aspirations and lesser achievements, which in turn reinforce their low self-esteem. If self-esteem and achievement are connected and "Feeling competent is antagonistic to feeling traditionally female" (Lasky, 1982:56), it has been stated that "It is not surprising ... that few women have high self-esteem, and few women are high achievers in our society" (Lasky, 1982:48).

A further look into the literature does confirm this supposition and again demonstrates that sex-role socialization does effect achievement. Traits most clearly related to achievements are "...independence, autonomy, interest in tasks for their own sake, and affiliation (desire for friends and the willingness to be friendly)" (Lasky, 1982:51). These traits are encouraged in boys, however, girls are taught to be less independent, seek reassurance, are not encouraged to explore or creatively play with new toys (Goldberg and Lewis, 1969) and they learn to complete tasks to earn love and approval (Hoffman, 1972). Rubovits (1975) suggested that these traits were learned through socialization. Brothers and sisters in the same family were encouraged differently, with boys taught to be competitive and initiating and girls to be conforming, cooperative and dependent.

It is also true, and should be stated, that not all women have low self-esteem; effecting

their achievement potential. These high achieving women differ from the population in significant ways. Research reports by Bachtold (1976), Graham (1970), Hennig (1974), and Lemkau (1979) indicate that this woman is characterized as more independent, self-reliant, assertive, adventuresome, imaginative, more experimental, flexible and more intelligent. These traits were traced back to specific causes and it was found that high achieving women were likely to be first born or only children, come from homes where parents did not restrict them to female activities, and encouraged their interests. These high achieving women are often married to men who encourage their work by giving moral support, and participate in childcare and home duties (Lasky, 1982).

Achievement Conflict and Nursing

Women make up a large segment of the health care industry, and many of these women are nurses. As a sex-segregated occupation, the self-esteem of women becomes an issue. If (1) self-esteem and achievement are interrelated, and (2) feeling competent is antagonist to feeling female (Lasky, 1982:56), what implications does this have for a traditionally female, sex-segregated profession such as nursing, and a nurse's role responsibilities as a professional? Role behavior originates from learned expectations of how people should behave and the consequent rewards from other people. Changing role behavior often breeds conflict between need for approval and fear of loneliness (Allman, Lord, White, and Clark, 1979). This achievement conflict is common as adult women are faced with the incongruity of being expected to perform professionally and autonomously, but, at the same time, play the traditionally passive feminine role (Bush and Kjervik, 1979:697). This incongruity leads to stress upon the self-concept of women and nurses. This achievement conflict is present in both sexes, but Horner (1972) suggested that women have more achievement conflicts than men. To describe this conflict more fully, it should be realized that when a person successfully completes a task,

normally self-esteem is raised, however, if a person has low self-esteem and accomplishes a task successfully, it sets up "an unconscious emotional conflict because the feeling of competence and self-derogatory feelings are incompatible" (Lasky, 1982:66). Individuals are caught in a circular reoccurring pattern where "attitude determines your behavior and your behavior determines the climate of your life" (Portolese 1977:929).

The problem of low self-esteem in women has a broader effect on nursing than just the singular task performance potential referred to previously. Silber (1981) stated that personhood, power and potential are founded in self-esteem and necessary to be a successful supervisor, spouse, parent, as well as an effective nurse administrator. In fact, he thought that nursing management skills started with self-esteem, which would agree with Logan's (1985) point that self-esteem effects ones sense of personal strength, competence, and effects an individual's sense of control over his/her relationships and surroundings. Relationships are essential to establish meaningful nurse-client interaction, and the nurse's self-esteem has an influence upon the quality of the care she provides. But these are not the only consequences to the profession. Logan (1985) concluded that fostering self-esteem is crucial to quality nursing care, and without it, the nurse will avoid risks of relating to others or undertaking anything new or unfamiliar. In the same vein, Woolf (1984) correlated a low self-concept with nurses having difficulty in making decisions and underrating their abilities. This type of behavior is incompatible with the responsibilities inherent in the expanding nursing role.

Self-Esteem and Nursing Education

Since low self-esteem has been identified as a problem in the nursing profession, the question remains: What effect does nursing education have on self-esteem? Does it effect their achievement potential during and after school by effecting their results on the licensing exam? It was suggested that low self-concept was fostered during the students initial socialization into the

profession while in nursing school (Ellis, 1980), but this supposition has not been tested in any known research studies. There have been studies, however, regarding self-concept, stereotypic images in women, personality characteristics and self-perception, and many of these have been previously cited. Since nursing students are the focus of this investigation, studies utilizing this population, and focusing on student self-concept, self-image, self-perception, self-esteem or self-confidence, were sought.

Aldag and Brief (1979) studied selected correlates of womens' self-image and stereotypes of femininity. They found womens' self-perceptions were associated with a variety of affective responses, role stress indices, demographic measures and personality characteristics.

Rein (1977) also studied self-perception in the formation of the concept of the ideal self. Her research indicated a discrepancy between the concept of self and the ideal-self, and found that this effected the nursing students perceptions about their role on the physician/nurse team. It can also effect career aspirations (Burgess, 1976), performance and satisfaction with work (London and Klimoski, 1975).

Four studies were found which specifically dealt with self-esteem. In the early 70's, Meleis and Farrell (1974) studied nursing students in three separate nursing programs. In all these instances, students were found to be strikingly low in self-esteem. They entitled their article "Operation Concern..." for good reason. Later research by Ellis (1980) also had surprising results. She tested four levels of students (n=177), from Freshmen to Seniors, and found that student self-concept did vary throughout the nursing program, being highest in the beginning of sophomore year and lowest at the beginning of the senior year. These seniors also had the lowest percentages in eight out of ten measures used in the Tennessee Self-Concept Scale (T.S.C.S.). Another researcher, tested the relationship between selected personality traits and self-esteem among female nursing students (n=75) and found that students exhibited significant correlation with the T.S.C.S. subscales of endurance, nurturance and affiliation, and statistically

significant negative correlations were found in regard to aggression and succorance (Lewis, 1980). While these three studies concerned undergraduate students, graduate nursing students were the focus of a study by Gauthier and Kjervik (1982). The results of their study demonstrated that graduate students who scored higher in the "high masculine" characteristic categories on their tool, demonstrated higher self-esteem.

Only one study was found which correlated self-esteem to achievement in any way, and specifically it referred to achievement based on teaching methodologies. Rehn (1985) tested the significance of the relationship between dogmatism, self-esteem, locus of control and predisposition toward two instructional methods. He found a weak correlation between personality traits and achievement and his findings suggested that analysis of interaction between personality traits and types of instruction could assist in assigning students to particular types of instructional methods for greater achievement.

The Dependent Variable - the NCLEX-RN

The NCLEX-RN, the dependent variable in this study, was also the focus of the literature search, however, no studies were found in regard to self-esteem levels and this measure of achievement. Since this national examination has only been in place since 1982, this should not be surprising. In fact, only two studies were found to have specifically used this examination for research purposes since that time. It should be noted that these studies have been included as background data, not because they deal directly with self-esteem and the NCLEX-RN, but because they demonstrate that the dependent variable selected for study is one that has been used before in educational research.

Sharp (1985) designed a study to determine if seven variables or a combination of variables were predictive of performance on the NCLEX-RN. The cognitive variables she tested were: high school grade point average, college grade point average, the American College Test

Assessment (ACT) standard scores in English, math, social studies and the natural sciences. She found the strongest combination for pass/fail on the examination to be grade point average (G.P.A.), math and the natural sciences. A second study, conducted by Felts (1986), also examined the relationship between select cognitive variables and demographic variables and compared them to student performance on the NCLEX-RN. Her results showed the ACT composite score to be a significant predictor, as well as G.P.A. in support courses (humanities and sciences), and the admission variables of high school course grades, G.P.A. and ACT social studies. Demographic variables were not found to yield significant discrimination.

Prior to 1982, researchers used the individual State Board Examinations as a dependent variable. The most common predictive studies focused on cognitive variables to include the National League for Nursing (NLN) Achievement Test, performance, nursing theory grades, verbal and reading ability, and the Scholastic Aptitude Test. More specifically, cognitive measures such as grades, admission testing, ACT achievement tests and G.P.A. demonstrated significance in research efforts by Beale and McCutcheon (1980), de Tornyay and Russell (1978), Halpin and Hauf (1976), Kissinger and Manjas (1982), Owen and Feldhusen (1970) and Wolfe and Bryant (1978). Studies concerning non-cognitive variables were also found. The non-cognitive variables studied were age, psychological measures, personality traits and previous nursing experience, however, they proved inconclusive in studies by Aldag and Rose (1983), Donsky and Judge (1981), Frerichs (1973), Hayes (1981), Hutcheson, Garland and Lowe (1979), Lunneborg, Olch and de Wolf (1974) and Yess (1980).

In conclusion, nursing remains a sex-segregated profession. As such, it is influenced by low self-concept and lack of self-esteem fostered by sex-role stereotyping that occurs during the developmental process in women. With the continuing emergence of nursing as a profession of increasing complexity and skill, it becomes essential to prepare a nurse who is confident as well as competent, both characteristics which are based on an individual's level of self-esteem.

Therefore, to accomplish the goals of nursing, high self-esteem in students is essential and must be fostered throughout professional educational endeavors. Nursing studies demonstrated that student levels of self-esteem are being jeopardized. Finally, no studies were found which dealt directly with self-esteem levels in students and the NCLEX-RN, making this study an original effort in this area.

PROCEDURES

The research question pursued in this study was "Is there a relationship between self-esteem and levels of academic achievement"? The hypothesis advanced for the comparison of this achievement was that there would be a strong correlation between scores on the Self-Esteem Index tool and scores on the National Council Licensure Examination for Registered Nurses. The null hypothesis to be tested was that "There will be no significant correlation between the results on the S.E.I. and final scores achieved by students on the National Council Licensure Examination for Registered Nurses".

Definition of terms

Senior students: Full time students at Brockton Hospital School of Nursing, having fulfilled the curricular requirements of the nursing program, requirements of the State Board of Registration in Nursing, and were eligible to take the National Council Licensure Examination for Registered Nurses:

Achievement: A level of academic success as measured by a passing score on the NCLEX-RN; scores over 1600.

National Council Licensure Examination for Registered Nurses (NCLEX-RN): A standardized test used as a measure of the basic competency level to enter into the practice of professional nursing.

Self-esteem: "An attitude of approval or disapproval, and indicates the extent to which an individual believes himself to be capable, significant, successful and worthy" (Coopersmith, 1967:4); how a person feels about themselves (Hamachek, 1985: 137); a positive or negative

Moderate self-esteem: Scores which range from +26 to +50.

High self-esteem: Scores which range from +51 to +75.

Table I
Categories and Ranges for S.E.I.

Category	Range		
Negative Self-Esteem	-75	-	0
Low Self-Esteem	+1	-	+25
Moderate Self-Esteem	+26	-	+50
High Self-Esteem	+51	-	+75

participants, the entire senior class (30 students), were asked to complete the S.E.I. at an end of year class meeting. Informed consent was obtained at this same time. Scores on the National Council Licensure Examination for Registered Nurses were obtained from the Curriculum Coordinator of the School of Nursing. Three students chose not to participate in the study, and two students withdrew from the school before semester end leaving 25 participants ($n = 25$) in the final study population (24 females, 1 male) fulfilling all study criteria.

Treatment of Data

The responses on the Self-Esteem Index were quantified as whole numbers according to test scoring directions. Responses were classified into four categories based on predetermined ranges: negative self-esteem, low self-esteem, moderate self-esteem, and high self-esteem (Table I). Other descriptive parameters were determined (Table II) and percentages calculated for each category (Table III). Scores attained on the Self-Esteem Index were then compared with scores achieved on the NCLEX-RN utilizing the Pearson Correlation, to identify the extent to which variations in the independent variable (S.E.I. scores) correspond to variations in the dependent variable (NCLEX-RN scores). The null hypothesis was tested with twenty four degrees of freedom ($df = 24$) at the $p < .05$ level of significance.

The hypothesis tested was: There will be no significant correlation between scores achieved on the National Council Licensure Examination for Registered Nurses and self-esteem levels (S.E.I. scores).

Limitations of the Study

This study was limited to the senior students at Brockton Hospital School of Nursing and to the existing conditions and curriculum in place at that school. No sample was taken due to the small number of senior students in the class. It should also be noted that the Self-Esteem Index and National Licensing Examination Scores do not reflect variability in gender, age, personality type, prior academic preparation or scholastic achievement. Also, the specificity of the group tested, senior students in a three year diploma school of nursing, will limit generalizations made to those participants involved in this study alone. It should also be noted that this study is subject to methodological limitations, and the bias inherent in any study which utilizes self-scoring response style questionnaires to measure independent variables, and will be affected by factors such as mood of the respondents when they complete the questionnaire, although they all took it under the same environmental conditions.

Assumptions

It was assumed that the senior students were representative of the students in the school of nursing; had been influenced by the curriculum and teaching styles inherent in a school of nursing for theory and clinical experience; had met all criteria for graduation as well as the requirements for the National Council Licensure Examination for Registered Nurses; and, all had equal opportunity for success on the NCLEX-RN examination. It was also assumed that students would respond honestly to the S.E.I. questionnaire; that the nursing students had similar goals, aspirations, and motivations because of the unique and specialized nature of the school; and, that all students were reasonably homogeneous in terms of age, intelligence, background, and experience with societal influences of sex-role socialization.

RESULTS

The purpose of this study was to investigate the relationship between National Council Licensing Examination for Registered Nurses (NCLEX-RN, 1982) results and graduating seniors' levels of self-esteem. More specifically, this correlational study was done to investigate the extent to which scores achieved on the Self-Esteem Index (S.E.I.) corresponded to success rates on the NCLEX-RN. The null hypothesis was expressed as: "There will be no significant correlation between the results of the S.E.I. and final scores achieved by students on the NCLEX-RN".

Thirty senior students comprised the study population. However, three students chose not to participate in the study, and two students withdrew from the school before semester end leaving 25 participants ($n = 25$) in the study population, 24 females and 1 male. Twenty-eight students were tested by the National Council Licensing Examination, twenty five of whom met study criteria, and chose to participate as mentioned above. Twenty-six students passed and two students failed the examination crediting the school with a 93% pass rate and a 7% failure rate. Minimum score achieved was 1464 with the attainment of a maximum score of 2743. The range of scores was 1279 with a mean scale score of 2031 and a standard deviation of 269. The passing score for the examination is 1600 (Table II).

Self-Esteem Index scores were calculated and categorized based on a -75 to +75 scale, and utilized four categories to rate the quantified results of the Self-Esteem Index (Table I). Student scores reflected a minimum score of -41 (negative self-esteem) and a maximum score of 54 (high self-esteem) with a range of 95. The standard deviation was 21.7 with a mean of 16.8 (low self-esteem) with no mode (Table II). Twenty percent (20%) of the senior students

demonstrated a negative self-esteem (-75 to 0), forty-eight percent (48%) a low self-esteem (1 to 25), twenty-eight percent (28%) had a moderate self-esteem and only one student (4%) demonstrating high self-esteem (51 to 75). Adding the negative and low self-esteem categories shows that sixty-eight percent (68%) of the senior class had a seriously jeopardized self-concept, as compared to the rest of the class (32%) with a more stable level of self esteem.

Table II

Descriptive Statistics for S.E.I. and NCLEX-RN

	<u>S.E.I.</u>	<u>NCLEX-RN</u>
Minimum Score	-75	1464
Maximum Score	+75	2743
Range	95	1279
Mean Score	16.8	2031
Standard Deviation	21.7	269
Passing Score	—	1600

Application of the Pearson Correlation, significant at the $p < .05$ level, resulted in the finding that there was no significant relationship between students levels of self-esteem and scores achieved on the NCLEX-RN. It was hypothesized that students classified as having a high

self-esteem would score higher on the NCLEX-RN, however the results of this study did not lend support to this hypothesis. The null hypothesis, that there would be no significant relationship between cognitive preference and achievement on the NCLEX-RN was accepted. This was based on the results computed from the Pearson Correlation, which resulted in a numerical value of $r = .04$. The null hypothesis was accepted, since this number was not significant at the $p = <.05$ level (Table IV).

Table III

Categories, Ranges and Percentages for S.E.I. Scores

Category	Range	Frequency	%
Negative Self-Esteem	(-75 - 0)	5	20
Low Self-Esteem	(+1 - +25)	12	48
Moderate Self-Esteem	(+26 - +50)	7	28
High Self-Esteem	(+51 - +75)	1	4

Table IV

Results of Pearson Correlation Statistic

N	df	r	Level of Significance
25	24	.04	Non-significant

DISCUSSION, IMPLICATIONS, RECOMMENDATIONS

Discussion

The purpose of this study was to investigate the relationship between graduating seniors' levels of self-esteem and scores achieved on the National Council Licensure Examination for Registered Nurses. Further discussion concerning this study will be limited to its applicability to the Brockton Hospital School of Nursing, since the size and specificity of the sample population (nursing students) limits the generalizability of the results.

The investigation revealed that there was no significant relationship between senior students' self-esteem levels and the NCLEX-RN. However, non-significant results should not be confused with insignificant results. This study opened many areas of inquiry for this school in regard to student achievement, success variables concerning the NCLEX-RN, the influences of sex-role socialization on student achievement and faculty roles, and responsibilities concerning increasing self-esteem in students.

First, this study did not support the myriad of research which acknowledges a relationship between achievement levels and self-esteem. A superficial look at the data would have concluded that there would be a positive correlation. For example, it is interesting to note that the student with the highest self-esteem level (54) scored exceptionally high (2328 out of a minimum pass of 1600) on the examination and the student with the lowest self-esteem level (-41) scored 1698 -- barely passing. However, what appeared initially as support for a positive correlation between self-esteem and achievement levels was negated when it was seen that the student who scored the highest in the class on the examination (2743) had a self-esteem score of 2. Obviously, the low level of self-esteem had not effected this student's achievement. Literature

was searched for an answer to this paradox. It was found that there are many components to the self-concept. We have a concept of ourselves, for example, as a parent, student, athlete, or teacher, and, although we may have an overall low self-esteem, it is possible to excel in some areas (Rosenberg and Kaplan, 1982).

In the second place, while this study did not show a significant correlation in regard to self-esteem levels and achievement, it did demonstrate, by the descriptive data obtained, that a severe problem exists concerning the levels of self-esteem in the senior students in this school. Percentages, calculated for each of the four levels of self-esteem tested, demonstrated a combined percentage of sixty eight percent for students in the negative or low self-esteem categories. While these are discouraging results, they are consistent with the study findings of Ellis (1980), and Meleis and Farrell (1974) which stated that nursing students had low self-esteem.

Another interesting paradox came in the form of the high passing rate (96%) of these students on the examination despite their appalling levels of low self-esteem. This may be explained by the fact that (1) NLN practice exams are given throughout the three years, (2) all tests given are in "clinical situation/ nursing process format" which mimicks the licensing exam, (3) the nursing exam measures only basic competency for entrance into the profession, or (4) the large amount of clinical experience, given in diploma schools, gives the student a testing advantage because of increased clinical exposure.

A fourth consideration is that the NCLEX-RN is not a correlate for self-esteem levels in this group of students. In this regard, this study did support literature which demonstrated that selected cognitive variables may have a more consistent significant relationship than non-cognitive variables such as self-esteem, and personality characteristics, especially when the dependent variable is the NCLEX-RN.

It is highly unlikely that any of the aforementioned paradoxical results were due to

methodological issues usually inherent when using a self-response questionnaire, especially for this study. It would be more usual for individuals to rate themselves higher not lower (68% of the class had negative or low self-esteem) when responding to the questions regarding how they feel about themselves. Also, all grades were already computed and students were assured of graduation, so no possible fear of "retaliation or student paranoia" should have existed. It is also unlikely that chance would have brought a whole group of students together, in which only one student demonstrated a health self-esteem out of the whole senior class. But, perhaps it is not so unlikely when we again look at the literature regarding sex-role socialization and low levels of self-esteem fostered in women. The fact that sixty-eight percent of the students exhibited negative or extremely low self-esteem level also lends support to the large amount of literature previously cited, which states that (1) low self-esteem exists in women, and (2) the educational process in nursing school, which should foster competence and confidence, is not demonstrated in this sample or in the three other studies found. This suggests that these students had low self-esteem before they came to the school, implicating the sex-role socialization process, and that the educational process did not counteract this situation in the socialization of these students as they adapted to the professional role expectations of a professional nurse in society.

It is true that the school cannot be blamed for prior effects of sex-role socialization, especially since high levels of self-esteem are not tested for upon admission. In fact, the striking similarity of the descriptive results of this study, and generalizations made in literature regarding nursing schools, is of particular interest to this school. It demonstrated that they are not alone in this problem. However, it had been thought that the excellent passing rates (96%) passing rates on the NCLEX-RN meant competent and confident practitioners. Now, it simply means that (1) student cognitive preparation is superior, and (2) achievement of self-esteem as an educational objective needs to be reassessed in this institution.

Implications

Until further research is conducted in this population, it must be assumed that since nursing is a sex-segregated profession, it will be effected by low levels of self-esteem in women in both the academic and professional arenas. In fact, the overwhelming low results demonstrated by this study show an endemic problem, which should become a priority in the re-evaluation of nursing education curricula.

Since faculty have been implicated in lowering self-esteem levels in students during there socialization process, whether it is repetitive of their own socialization process or not, they must become more aware of the problem and their role in correcting the situation. This is important, especially when it is remembered that self-esteem is based on reflected appraisals of significant others. Faculty expectations, feedback and role modeling of high self-esteem behaviors becomes essential. Therefore, the initial approach must be to educate both faculty and students regarding the importance of self-esteem and achievement potential and heighten faculty ability to identify behaviors, or test for, those students-at-risk for academic failure due to negative or low self-esteem levels. Guidance program for both faculty and students, elucidating the problem of the affects of sex-role socialization and it effects, should be conducted.

In summary, nursing literature originally blamed the socialization process inherent in the nursing education process (Ellis, 1980) as the cause of student self esteem, but an expanded literature search demonstrated a broader, multidimensional problem complicated by societal sex-role socialization of women. The fact is that society at large is not only to blame, but the educational system also. It reinforces basic sex-role socialization and nursing education does not appear to be any different. Nursing is basically a female profession, taught by female professors, who themselves have been subject to this same sex-role socialization process (an interesting turn of events). Therefore, the fact remains, unequivocally, that self-esteem continues as problem for women, and therefore for the nursing profession. If a student's

self-esteem is being negatively effected, Ellis (1980:389) suggests educators should address this issue with urgency. Support for this position was also be found in Logan's (1984:35) concern that self-worth should not be left to chance, and Kovac's (1977:22) inference that self-esteem/self fulfillment should be considered an educational objective for nursing education programs.

Future research should focus on the reciprocal relationship of the role of education and educators in reversing/or fostering this restrictive pattern in women. If self-esteem is to be a curricular objective, due to the relationship of self-esteem to achievement, educators must recognize the problem and not blame the educational system alone, but society at large also, and then attempt to rectify the problem. Similarly, other studies should be conducted and curricular changes implemented to foster self-esteem in students.

Recommendations

In the final analysis, this study has revealed that extended research into womens' self-esteem and its effect on achievement potential is both timely and relevant. In fact, the results and literature search done for this study has opened many areas of inquiry for this school of nursing in regard to (1) student self-esteem, (2) student characteristics which have predictive value for educational and academic success (3) as well as recognizing the role of educational institutions to increase the awareness of individuals, to finally impact on society itself.

To conclude, the following actions are recommended to counteract the effects of sex-role socialization on student achievement potential:

- integrate consciousness raising principles into lectures and courses regarding nursing professional role and leadership responsibilities.
- design continuing education courses for educators which identify faculty role and responsibilities as well as strategies to increase self-esteem in students.

- administer self-esteem inventories to all students to determine levels of and or changes in self-esteem throughout the three years in nursing school. Include demographic information to extend variable correlation.
- create guidance department programs which define and identifies the hazards of sex-role socialization and its effects on achievement potential.
- replicate this study, and extend it to include a longitudinal measures, to show effects of new positive programming efforts in the school.
- continue research efforts to identify variables that may be predictive of NCLEX-RN success.

REFERENCES

- Adelman, S. and Rozenzweig, S. "Parental Determination of the Sex of Offspring" Journal of Biosocial Science, Vol. 10, (1978), 235.
- Aldag, R. and Brief, A. P. "Some Correlates of Womens' Self-Image and Stereotypes of Femininity." Sex Roles: A Journal of Research, Vol. 5, No. 30, (June, 1979), 319-328.
- Aldag, J and Rose, S "Relationship of Age, American College Testing Scores, Grade Point Average, and State Board Examination Scores." Research in Nursing and Health, Vol. 6, (1983), 69-73.
- Allman, J., Lord, S.B., White, K. and Clark, L. Understanding Sex Roles and Moving Beyond: A Learning/Teaching Guide. Produced by the Model Sex-Fair Training Program in Educational Psychology and Guidance, University of Tennessee, under a grant from the U.S. Department of Health, Education, and Welfare, Office of Education, under the auspices of the womens' Educational Equity Act, 1979.
- Bachtold, L. M. "Personality Characteristics of Women of Achievement." Psychology of Women Quarterly, Vol. 1, (1976), 70.
- Barksdale, L. "Self-esteem Index". The Barksdale Foundation for Furtherance of Human Understanding, P.O. Box 187, Idyllwild, California 92349.
- Barton, George M. Applied Educational Research and Evaluation. Fort Lauderdale, Florida: Nova University, 1984.
- _____. Center for Higher Education Practicum Guide, 1984. Fort Lauderdale, Florida: Nova University: 1984.

- Barton, G. and Morton, R. E. Center for Higher Education Guidelines for Form and Style. Fort Lauderdale, Florida : Nova University, 1983.
- Beale, A.V. and McCutcheon, A.F. "On Becoming a Nurse." Journal of Nursing Education, Vol. 19, No. 4, (1980), 28-32.
- Bennett, E. M., and Cohen, L.R. "Men and Women: Personality Patterns and Contrasts." Genetic Psychology Monographs. Vol. 59, (1959), 101.
- Broverman, I., and others. "Sex-Role Stereotypes: A Current Appraisal." Journal of Social Issues, Vol. 59, (1972), 59.
- Burgess, G. "Self-Esteem and Career Aspirations Among Nurse Participants of Continuing Education." Journal of Continuing Education, Vol. 7, No. 2, (March/April, 1976), 7-12.
- Bush, M. A. and Kjervik, D. K. "The Nurse's Self-Image". Nursing Times, Vol. 75, (April 26, 1979), 697-701.
- Coopersmith, S. The Antecedents of Self-Esteem. San Francisco: Freeman, 1967.
- Cranston, C. and McCort, B. "A Learner Analysis Experiment: Cognitive Style Versus Learning Style in Undergraduate Nursing Education". Journal of Nursing Education, Vol. 24, No. 4, (1985), 136-138.
- DeFelippo, Anne Marie. "Big Nurse: Little Ego". Supervisor Nurse, (August, 1978), 23-27.
- de Tommyay, R. and Russell, M.L. "Helping the High Risk Student Achieve". Nursing Outlook, Vol. 26, No. 9, (1978), 576-580.
- Diers, Donna. "It's A Good Time For Nursing". Yale Alumni Magazine, Vol. 36, No. 3 (December, 1972), 9.
- Donsky, A.P. and Judge, A.J. Jr. "Academic and Non-Academic Characteristics As Predictors of Persistence in an Associate Degree Nursing Program." Paper presented at the Twenty First Annual Forum of the Association for Institutional Research, 1981.

- Ellis, L. S. "An Investigation of Nursing Student Self-Concept Levels: A Pilot Survey". Nursing Research, Vol. 16, No. 3, (March, 1977), 22-24.
- Fein, D., and others. "Sex Differences in Preadolescent Self-esteem". Journal of Psychology. Vol. 90, (1975), 179.
- Felts, J. "Performance Predictors for Nursing Courses and NCLEX-RN". Journal of Nursing Education, Vol. 25, No. 9, (November, 1986), 372-377.
- Frerichs, M. "Relationship of Self-Esteem and Internal-External Control to Selected Characteristics of Associate Degree Nursing Students." Nursing Research, Vol. 22, (1973), 350-352.
- Gauthier, J., and Kjervik, D. "Sex-Role Identity and Self-Esteem in Female Graduate Nursing Students." Sex-Roles: A Journal of Research, Vol. 8, No. 1, (1982), 45-56.
- Goldberg, S., and Lewis, M. "Play Behavior in the Year-old Infant: Early Sex Differences." Child Development, Vol. 40, (1969), 21.
- Gordon, R.E., and Gordon, K. K. "Factors in Post-Partum Emotional Adjustment." American Journal of Orthopsychiatry, Vol. 37, (1967), 359.
- Graham, P. A. "Women in Academe." Science, Vol. 169, (1970), 1284.
- Gurin, G., and others. Americans View Their Mental Health. New York: Basic Books, 1970.
- Halpin, G. and Haut, B. "Incremental Validity of the ACT Test Battery for Predicting Success in a School of Nursing Over a Ten Year Period". Educational and Psychological Measurement, Vol. 36, No. 1-2, (1976), 433-437.
- Hamachek, D. E. "The Self's Development and Ego Growth: Conceptual Analysis and Implications for Counselors". Journal of Counseling and Development, Vol. 64, No. 2, (1985), 136-141.
- Hayes, E.R. "Prediction of Academic Success in a Baccalaureate Nursing Education Program." Journal of Nursing Education, Vol. 20, (1981), 4-8.

- Hennig, M. "Family Dynamics and the Successful Women Executive." In Knudsin, R., Women and Success. New York: William and Morrow & Co., Inc., 1974.
- Hoffman, L. W. "Early Childhood Experiences and Womens' Achievement Motives." Journal of Social Issues, Vol. 28, (1972), 129.
- Holmes, S.E., Showalter, R.E. & Heidorn, D.L. "Developing, Constructing and Scoring the National Council Licensure Examination." Issues, Vol. 40, No. 1, (1983), 1-8.
- Hornor, M. "Toward An Understanding of Achievement-Related Conflicts in Women," Journal of Social Issues, Vol. 68, (1972), 158.
- Hull, R.T. "Responsibility and Accountability Analyzed". Nursing Outlook, Vol. 29, (1981), 707-712.
- Hutcheson, J.D. Jr., Garland, L.M. and Lowe, L.S. "Antecedents of Nursing School Attrition: Attitudinal Dimensions." Nursing Research, Vol. 28, No. 1, (1979), 57-63.
- Issac, Stephen and Michael, William. Handbook in Research and Evaluation. San Diego, California: Robert R. Knapp, 1971.
- Kissinger, J and Munjas B. "Predictors of Student Success", Nursing Outlook, Vol. 30, No.1, (January 1982), 53-54.
- Kramer, Mariene. Reality Shock. St. Louis: The C.V. Mosby Company, 1974.
- Kovacs, A. R. "The Ideal of Self-Fulfillment As An Educational Objective". Journal of Nursing Education, Vol.16, No.3, (March, 1977), 22-24.
- Lasky, E. "Self-Esteem, Achievement, and the Female Experience." In Muff, J. [Ed.] Socialization, Sexism and Stereotyping: Womens' Issues in Nursing. St. Louis: The C.V. Mosby Company, 1982.

- Ledbetter, J.L. "An Analysis of the Performance of Graduates of a Selected Baccalaureate Program in Nursing with Regard to Selected Standardized Examinations". PhD dissertation (University of Alabama 1968). Dissertations Abstracts International, 29, 69-6549.
- Lecky, P. Self-Consistency: A Theory of Personality. New York: Island Press. 1945.
- Lemkau, J. P. "Personality and Background Characteristics of Women in Male-Dominated Occupations." Psychology of Women Quarterly, Vol. 4, (1979), 221.
- Lewis, J. and others. "The Relationship Between Selected Personality Traits and Self-Esteem Among Female Nursing Students." Educational and Psychological Measurement, Vol. 40, No. 1, (1980), 259-260.
- Logan, C. "Praise: The Powerhouse of Self-Esteem". Nursing Management, Vol. 16, No. 6, (June, 1985), 35-38.
- London, M., and Klimoski, R. J. "Self-Esteem and Job Complexity as Moderators of Performance and Satisfaction." Journal of Vocational Behavior, Vol. 6, No. 3, (June 1975), 293-303.
- Losak, John. Learning Theory and Applications. Fort Lauderdale, Florida: Nova University, 1984
- Lunneborg, P.W., Olch, D.R. and deWolf, V. "Prediction of College Performance in Older Students." Journal of Counseling Psychology, Vol. 21, No. 3, (1974), 215-221.
- Meleis, A. I. and Farrell, K. M. "Operation Concern: A Study of Senior Nursing Students in Three Nursing Programs." Nursing Research, Vol. 23, (November/December, 1974), 461-468.
- NCLEX-RN. National Council Licensure Examination for Registered Nurses, (1982).
Examination of The National Council of State Boards of Nursing, Inc., Chicago: Illinois.
Administered by Educational Testing Service (E.T.S.): New Jersey for the State of

- O'Malley, P.M. and Bachman, J. C. "Self-Esteem and Education: Sex and Cohort Comparisons Among High School Seniors." Journal of Social Psychology, Vol. 37, (1979), 1153.
- Owen, S.V. and Feldhusen, J.F. "Effectiveness of Three Models of Multivariate Prediction of Academic Success in Nursing Education." Nursing Research, Vol. 19, No. 6, (1970), 517-525.
- Perez, T.L. "Board of Nursing Examinations in Baccalaureate Nursing Program." Journal of Nursing Education, Vol. 16, No. 8, 16-23.
- Pohiman, E. The Psychology of Birth Planning. Cambridge, MA.: Schenkman Publishing Co., Inc., 1969.
- Portolese, E. F. "Most of Life's Misery is Optional". AORN Journal, Vol.25, No. 5, (April, 1977), 929-937.
- Rehn, R. A. "Relationship Between Dogmatism, Self-Esteem, Locus of Control and Predisposition Toward Two Instructional Methods Among Female Nursing Students." Paper presented at the Annual Convention of the Association for Educational Communications and Technology, Anaheim, California. January 17-23, 1985.
- Rein, I. "Medical and Nursing Students: Concepts of Self and Ideal Self, Typical and Ideal Work Partner." Journal of Personality Assessment, Vol. 41, No.4, (August, 1977), 368-374.
- Rosenberg, M. Society and the Adolescent Self-Image. Princeton, New Jersey: Princeton Press, (1965).
- Rosenberg, M. and Kaplan, H.B. Social Psychology of the Self-Concept. Illinois: Hartan Davidson, Inc., (1982).
- Rosenkrantz, P. and others. "Sex-Role Stereotypes and Self-Concepts in College Students." Journal of Consulting and Clinical Psychology, Vol. 32, (1968), 287-293.

- Rubovits, P. "Early Experience and the Achieving Orientation of American Middle Class Girls". In Malhr, M, and Stalling, W., [Eds.], Culture, Child and School. Monterey, California: Brooks/Cole Publishing Co., 1975.
- S.E.I. Self-Esteem Index, 1974. The Barksdale Foundation for Furtherance of Human Understanding, P.O. Box 187, Idyllwild, California 92349.
- Silber, M. B. "Nursing Management Starts and Succeeds with Self-Esteem". Supervisor Nurse, Vol. 12, (March, 1981), 42-46.
- Sharp, T.G. "An Analysis of the Relationship of Seven Selected Variables to State Board Test Pool Examination Performance of the University of Tennessee, Knoxville, College of Nursing". Dissertation Abstracts International, Vol. 42(5), 1823B. (1981).
- Sharp, T.G. "An Anlysis of the Relationship of Seven Selected Variables to State Board Test Pool Examination Performance of the University of Tennessee, Knoxville, College of Nursing". Journal of Nursing Education, Vol. 23, No. 2 (February 1984) 57-63.
- Sullivan, H. S. Conceptions of Modern Psychiatry. New York: W.W. Norton and Co., Inc., 1953.
- Weitzman, L.J. "Sex-Role Socialization." In Freeman, J. [Ed.]. Women: A Feminist Perspective. Palo Alto, California: Mayfield Publishing Co., 1979.
- Wolfe, L.M. & Bryant, L.W. "A Causal Model of Nursing Education and State Board Examination Scores." Nursing Research, Vol. 27, No. 5, (1978), 311-315.
- Woolf, P. J. "Increasing Self-Esteem Through Self-Evaluation." Journal of Nursing Education, Vol. 23, No. 2, (February, 1984), 78-80.
- Yess, J.P. "Predictors of Success in Community College Nursing Education." Journal of Nursing Education, Vol.19, (1980), 19-24.

