A STUDY PREDICTING SUCCESS OF REGISTERED NURSE BACCALAUREATE STUDENTS IN A SCHOOL OF NURSING

by

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Chapter I

INTRODUCTION

Career mobility in nursing has been a topic of major concern for many years (Rezler, 1978). Many programs have been developed that provide an opportunity for registered nurses who have graduated from diploma and associate degree schools to obtain their baccalaureate degrees. Various methods of admission selection have been used by these programs.

It is important that the selection process attempt to choose those individuals who will successfully complete the program. The cost of the program is high and the number of applicants usually exceeds the available spaces in the program (Stephenson, 1978). Attrition is expensive for both the student and the school in terms of time, money and resources wasted. Nursing and society lose a potential baccalaureate prepared professional nurse.

The admissions policy for the registered nurse applicant to the Oregon Health Sciences University baccalaureate program has been influenced by findings from a current review of the literature and beliefs of the Admissions Committee. In the past, it has involved a weighted combination of pre-nursing grade point average, high school grade point average, work experience and goal statements. This weighted combination allows the committee to rank order applicants and give priority for admission.

The purpose of this study is to determine the relationship between success of registered nurse students in a baccalaureate program as measured by exiting cumulative grade point average and program completion and the following predictors: 1) age; 2) years of nursing experience; 3) type of program from which the registered nurse graduated; 4) entering grade point average from prerequisite courses; 5) full- or part-time attendance in the program; and 6) content of the goal statement which applicants write as a part of the admissions procedure.

Review of the Literature

This review of the literature focuses on studies that have shown some characteristics of successful students, reasons for attrition, and correlates of success. It also summarizes research conducted on learning and the older student. These studies include generic and registered nurse students as the populations under consideration.

Older Students

Lunneborg et al. (1974) investigated the prediction of college performance in older students. This study population consisted of 153 men and women over the age of 35 enrolled in a northwestern university. The variables that contributed significantly to the prediction of college performance were high school grade point average, high school activities, years since full-time student, advanced degree goal, expected years to B.A., and test performance on the Washington Pre-College test battery routinely

administered to college bound high school students. A comparison of all freshmen entering the university in the fall of 1970 and the older sample indicated that the older students scored higher on the verbal skills portion of the Washington Pre-College test battery and lower on the quantitative portion.

In a study of students returning to college after a stopping out period of two or more terms, Cagiano et al. (1977) determined these students were an excellent risk in terms of successful completion of a program. In a group of 309 students, the grade point average increased by nearly a half grade point upon return from the previous enrollment. The increase was positively correlated with the number of terms that the student had been absent.

Characteristics of Registered Nurse Students

Hillsmith (1978) conducted a survey of registered nurses returning for baccalaureate degrees. The sample included 119 full- and part-time students who attended the University of Bridgeport during the academic year 1976-1977. Her sample included 70% diploma graduates and 30% associate degree graduates. The students' ages ranged from 21 to 40 years old with 61% older than 30 and 22% between 24 and 26 years old. Half of the sample had greater than five years' experience as nurses and 32% had 3 to 5 years. Married students accounted for 45% of the sample and 33% had children ranging in age from 8 months to 31 years old.

The students who worked while going to school accounted for 89% of the sample; 61% worked full-time and went to school part-time. Only four out of 34 spouses paid for the educational program entirely. Twenty-three of the diploma graduates were in administrative positions, while only one of the associate degree graduates was in a full-time administrative position. Reasons for returning to school to obtain a baccalaureate degree included: personal satisfaction (84%), better job opportunities, professional competence, to keep job, step to Master's degree and desire to change position and/or job.

Raderman et al. (1974) compared 64 registered nurse students who completed a baccalaureate program with 33 students who withdrew from the program. Results indicated that there was no significant difference between the two groups on the basis of age, sex, race, marital status, number of children, age of children, year of graduation from initial nursing program or number of years employed since graduation. The group of students that successfully completed the program scored higher on the SAT verbal test and the National League for Nursing (NLN) medical-surgical examination than the group that did not finish. The successful group also had significantly higher grade point averages in academic and nursing courses. The successful group included significantly more associate degree graduates than did the unsuccessful group.

Gortner (1968) compared selected characteristics of 231 registered nurse students and 244 generic students. Her study found that the profiles of generic and registered nurse students on the Allport-Venon-Lindzey Study of Values were similar. Religious, aesthetic and social inclinations were apparent in both groups. There was also a close resemblance in measured behavior between the two groups on the Omnibus Personality Inventory. A difference between the two groups was revealed in the educational choice determinants. The registered nurse students were influenced by factors such as monetary rewards, promotion or advancement, improvement of professional status and plans for advanced study. Generic students wanted the prestige of a college degree and the status of a college-educated person. The registered nurse students were depicted as highly motivated and concerned with upward mobility.

Factors Related to Attrition

Wilson and Levy (1978) investigated reasons for attrition of registered nurse students from the California State College in Sonoma. They found that there were three categories of withdrawal which coincided somewhat with the commitment that the individual had to nursing practice. The three categories of withdrawal included: 1) stepping out; 2) dropping in; and 3) switching out.

The stepping out category included those individuals who had a high commitment to nursing practice and to the

practice setting but were unable to handle the practical aspects of the program such as outside responsibilities and class scheduling. These individuals planned to return to the program when they had settled their personal problems. The dropping in category had a high commitment to nursing practice but a low commitment to the practice setting. These students did not feel comfortable in the program and left for another career, another school or another position in nursing. The switching out category of withdrawal included those individuals who had a low commitment to nursing practice. These students did not want to be nurses and had no other career plans.

Hutcheson et al. (1979) investigated attitudinal dimensions of generic students' attrition from nursing school. In contrast to Raderman's study, Hutcheson et al. found that older students had greater family responsibilities which seemed to affect their grades negatively. This seemed to contribute to the higher probability that older students would not complete nursing school with their classmates. Part of the study used semantic differentials to determine attitudes about certain groups of people such as alcoholics. These measures seemed to have little direct impact on predicting attrition.

Knopke (1979) attempted to predict attrition of generic students in a midwestern university. The variables found to contribute significantly to the prediction of attrition were first semester grade point average, high school

percentile rank, the College Qualifications Test, Science subpart, and the personality variables of order, dominance, and aggression as measured by the Edwards Personality Preference Schedule.

In a study by Wittmeyer et al. (1971), efforts were directed toward discriminating among those individuals who successfully completed the program, those who transferred out of nursing into other colleges and those who dropped from higher education altogether. The sample consisted of 119 generic students from a large midwestern university. The predictor variables were the ACT battery, the 16 Personality Factor Inventory, the Myers-Briggs Type Indicator, and the pre-nursing point-hour ratio which is similar to a grade point average. The criterion variables were completion/non-completion of the program, State Board Test Pool Licensing Examination (S.B.T.P.L.E.) results and cumulative point-hour ratio. As in many of the previously described studies, the pre-nursing point-hour ratio was the best overall indicator of nursing performance. The 16 Personality Factor Inventory and the Myers-Briggs Type Indicator did increase the ability to predict, but these were not a significant enough gain to justify administration to all applicants. Only low ACT Mathematics Usage scores showed a significant relationship to attrition. The students who withdrew tended to be more independent and venturesome.

Correlates of Success

One of the studies attempting to predict achievement in baccalaureate students was conducted by Seither (1980). The sample of this study was generic students who completed the baccalaureate degree from 1972 to 1976 in a large midwestern university (n=64). The results of the study indicated that the grade point average in biology was the best predictor of achievement in the baccalaureate program as measured by exiting grade point average and scores on the S.B.T.P.L.E. When the grade point average in the behavioral sciences was added to the grade point average in biology, there was an increase in prediction ability. The high school percentile rank was the best pre-college indicator of achievement. High school size and the Strong Vocational Interest test were of no predictive value.

Stronck (1979) conducted a study of 501 generic students admitted from 1974 to 1977 in a northwestern university. The results of the study indicated that the most appropriate predictor of future academic success was the grade point average from previous courses, especially prerequisite courses. Academic success was measured by grades received in nursing school, NLN examinations and S.B.T.P.L.E. scores. It was found that there was no correlation between letters of recommendation, and information about students' participation in organizations, and academic performance. Interview scores were negatively

correlated with academic performance. Students were required to write short narratives of professional goals and attitudes as part of the admissions procedure. The scores received on the narrative were strongly correlated with the grades earned at the institution. The study did not relate how points were assigned to the narrative, however.

Burgess et al. (1969, 1972) conducted three studies of prediction of success in nursing school with generic students. These studies used 58 predictor variables, including intellective and vocational interests and personality and educational characteristics. The criterion variable was grade point average in the junior year of nursing. Two of the studies indicated that cumulative freshman and sophomore grade point average was the most predictive of academic performance in the junior year. The third study eliminated the freshman and sophomore grade point average from the predictive matrix and loss of predictive ability was noted.

In a study by Thorne and Fisher (1981), records of 192 generic students at a northwestern university were investigated to determine correlates of success in that program. Predictor variables were pre-nursing grade point average, high school grade point average, SAT scores, NLN scores, reference letters, life experiences and work experiences. The criterion variable was total nursing grade point average. Pre-nursing grade point average was

shown to be the best single predictor. SAT's, grades in English and Chemistry, and the NLN composite score combined with the pre-nursing grade point average provided a substantial amount of predictive ability. Only 4% of the variance could be accounted for by the inclusion of life experiences, work experiences, and reference letters.

Clemence et al. (1978) attempted to determine the relationship between admissions criteria and successful completion of a baccalaureate program in nursing and passing the S.B.T.P.L.E. (n=247). Admissions criteria included admission grade point average, course requirements and demographic data. Their results indicated that ethnicity was significantly related to successful completion of the program and passing the S.B.T.P.L.E. Age, prior education, and work and nursing experience were not related consistently to the criterion variables. Certain prerequisite courses such as introductory psychology, abnormal psychology and developmental psychology were related to the criterion variables. The admission grade point average was also related to successful completion of the program and passing the S.B.T.P.L.E.

Schwirian et al. (1979) surveyed 151 basic nursing programs in 1975 to identify the 25% of the graduating class they considered to be "more promising" in becoming successful nurses. Those selected by the schools as more promising had obtained the highest rank in high school, the highest scores on the S.B.T.P.L.E., the highest mean

ratings on performance scales by supervisors and were more likely to have entered nursing after the age of 18.

Another part of the study determined nine high predictor schools; schools whose predictions of success for their graduates were most congruent with appraisals of performance by the graduates' supervisors. Seven of these schools met with the investigators for a conference to discuss criteria used in making admissions decisions. One important criterion was the evaluation of the applicant's previous academic performance. The schools wanted students who had shown consistency and/or improvement in their performance. Another criterion used was the determination of congruency between the applicant's personal and professional goals, and the philosophy and goals of the nursing program. A substantial part of the nonacademic attrition could be accounted for by a mismatch of student and school goals. These schools also tended to admit students who possessed chronological maturity and nursing or nursing-related experiences. Such persons were usually older, high in motivation, and had clearly defined goals.

Rezler and Moore (1978) conducted a study of 170 registered nurse students in a baccalaureate program. The independent variables were age, diploma vs. associate degree background, work experience, six validation examination scores and two entry grade point averages based on liberal arts and nursing subjects. The dependent variables were two exiting grade point averages based on

liberal arts and nursing subjects. Validation examinations were constructed by the College of Nursing faculty and covered history of nursing, nutrition, and maternity, medical-surgical, pediatric and psychiatric nursing.

Results of the study indicated that age was not a factor in the performance of registered nurse students. Diploma graduates performed at a higher level than did associate degree graduates. Work experience was not statistically significant in determining exiting grade point average. Entry grade point average in the liberal arts was predictive of exiting grade point average in the liberal arts. Nursing performance was difficult to predict.

The data from the literature can be summarized in the following manner. First, previously earned grade point average appears to be a fairly reliable predictor of subsequently earned grade point average. Second, prediction of success can be increased if multiple factors are considered together, rather than as separate entities. Third, there is contradictory information available concerning the effects of age, type of program from which the registered nurse graduated and nursing experience. Fourth, congruence of student and school goals appears to increase the chances of successful completion of the program.

This review of the literature graphically depicts the lack of research on the registered nurse baccalaureate student. This study will contribute to the information

concerning predictors of success for the registered nurse student.

Conceptual Framework

The studies summarizing the prediction of success in school are presented in Table 1. Previous grade point average is a strong predictor of success, whether success is measured by exiting grade point average, NLN examinations, completion of program or results of S.B.T.P.L.E. However, grade point average does not account for all of the variance, so other factors must also have a part in the prediction of success.

Adult learning theory may assist in explaining some of the remaining variance of success for older students. Knowles (1973) has proposed a theory of adult learning which states that adults learn differently than children. This difference is a result of maturation and increased experience. Knowles posits that individuals' learning orientations change as they grow older because they have more life experiences and base their learning goals on those experiences. Adult learning is purposeful and goal directed; hence, if the learning opportunities are congruent with these goals, the learner should be more motivated to learn, which should lead to greater success.

Hilgard and Bower (1966) agreed with this contention that there is a relationship between goal setting and motivation for learning. Two of their principles of teaching include: 1) goal setting by the learner as

Table 1

Summary of Studies Reviewed

STUDY, YEAR PUBLISHED, POPULATION	AGE	ENTERING G.P.A.	YEARS OF EXPERIENCE	TYPE OF EXPERIENCE	PROGRAM	GOALS	PERSONALITY	TEST SCORES	CRITERION VARIABLES
Burgess, 1969, 1972, Generic, n= 150 (1969) n= 143 (1972)	-	S	-	-	-	-	-	S	G.P.A.
Cagiano, 1977, Returning College Students, n=309	-	NS	-	-	-	-	-	-	Completion of program
Clemence, 1978, Generic, n=247	NS	S	-	NS	-	-	-	-	Completion of program
Hutcheson, 1979, Generic, n=261	S	-	-	-	-	-	NS	-	Completion of program
Knopke, 1979, Generic, n=63, 173	-	S	-	-	-	-	S	S	Attrition
Lunneborg, 1974, Returning College Students, n=153	-	S	-	-	-	-	-	-	G.P.A.
Raderman, 1974, R.N. Students, n=64, 33	NS	S	NS	-	AD-S	-	-	-	Completion of program

S-Significant
NS-Not Significant
AD-Associate Degree
G.P.A.-Grade Point Average

Table 1 (continued)

STUDY, YEAR PUBLISHED, POPULATION	AGE	ENTERING G.P.A.	YEARS OF EXPERIENCE	TYPE OF EXPERIENCE	PROGRAM	GOALS	PERSONALITY	TEST SCORES	CRITERION VARIABLES
Rezler, 1978 R.N. Students, n=170	NS	S	-	NS	Dip-S	-	-	-	G.P.A.
Schwirian, 1979, Nursing schools, n=151	S	-	-	S	-	S	-	-	Appraisal by superv.
Seither, 1980,	-	S	-	-	-	-	NS	-	G.P.A.
Generic, n=64	-	S	-	-	-	-	NS	-	SBTPLE
Stronck, 1979,	-	S	-	-	-	-	-	-	NLN
Generic, n=501	-	S	-	-	-	S	-	-	G.P.A.
	-	S	-	-	-	-	-	-	SBTPLE
Thorne, 1981, Generic, n=192	-	S	NS	-	-	-	-	S	G.P.A.
Wittmeyer, 1971, Generic, n=119	-	S	-	-	-	-	S	-	G.P.A.

S-Significant
NS-Not significant
Dip-Diploma
NLN-NLN examinations
SBTPLE-State Board Test Pool Licensing Examination
G.P.A.-Grade Point Average

important motivation for learning and 2) the effect of long range goals on short range activities because the long range goals help to determine the relevance of the short term activity.

Schwirian (1979) found these two principles applied in her study of schools that were able to predict which students would be high performers in nursing. These high predictor schools emphasized congruence in student and school goals in their admissions process. Stronck (1979) also found that goal statements were significantly correlated to grade point average.

According to Knowles' theory of andragogy or adult learning, older students will have better defined goals because they have had more time and experience upon which to base these goals. The research literature is divided on this subject. The disagreement centers around the responsibilities that are connected with increased age, rather than the motivation to learn. Raderman (1974) found that increased age with its increased responsibility to family and community did not affect whether the student would or would not complete the program ($X^2 = 1.3^1$, df=2). Hutcheson (1979), however, found the opposite to be true. Older students had greater responsibilities and did not finish school with their entering classes (r=.110, p=.05). Schwirian (1979) found those schools with high prediction rates felt older students were more motivated

and did better in schools and on the job. Clemence (1978) and Rezler (1978) both found that age was not significant.

Based on adult learning theory and these equivocal findings, four predictor variables were selected to examine their combined contribution to total variance of success in the program. Age and years of experience were viewed as indicators of increasing clarity of goals. In addition, it was reasoned that if the adult learner had clearly defined goals and if these goals were congruent with program goals, there could be a greater chance for success. Part-time/full-time status was selected as an indirect measure of outside responsibilities, assuming that students with fewer outside responsibilities would be able to attend school full-time and thus complete the program.

The other class of predictor variables was based on prior studies and are measures of academic qualifications. Previous grade point average has successfully been used to predict future grade point average and has been included in this study for that reason.

Chapter II

METHODOLOGY

Design

The design for this study was retrospective and correlational. The predictor variables were: 1) age; 2) years of nursing experience; 3) type of program from which the registered nurse graduated; 4) entering grade point average from prerequisite courses; 5) full- or part-time attendance in the program; and 6) content of the goal statement. The criterion variables were exiting cumulative grade point average and completion or non-completion of the program.

The design of this study was chosen due to the nature of the questions under study. Manipulation of the variables was not possible nor desirable. This design was best suited to the application of multiple regression so that predictive ability could be tested.

Subjects

Subjects consisted of a convenience sample of all 142 registered nurse students who had entered the Oregon Health Sciences University School of Nursing baccalaureate program from 1974 to 1979. Criteria for entry into the study were as follows: 1) must be a registered nurse who had returned for a baccalaureate degree in nursing; 2) must have entered the Oregon Health Sciences University School of Nursing from 1974 to 1979; and 3) must have had

records available which include date of birth, type of program from which the registered nurse graduated, grade point average for prerequisite courses for entry into the program and exiting grade point average or documentation of non-completion of the program.

Variables

Predictor Variables

Age. Date of birth of each subject was recorded from the transcript, and age at the time of entry to the program was calculated to the nearest month and year.

Years of nursing experience. The length of time employed as a nurse was recorded from the application form of each subject. The length of nursing employment was calculated in months and years.

Type of program. The type of program from which each subject graduated was recorded from the application form. Classification of program was either diploma or associate degree.

Entering grade point average. The grades from prerequisite courses were recorded from each subject's transcript. A grade point average was calculated on a 4.0 scale and rounded off to the nearest one-hundredth.

Full- or part-time attendance. Determination of full- or part-time attendance was made through a survey of the subject's transcripts. Subjects were considered to have attended nursing school full-time if they had enrolled and completed at least ten credit hours per each registered

term. Part-time status was accorded to subjects enrolling in and completing less than ten credit hours per each registered term (School of Nursing Catalog, 1979-1981).

Goal statement. A content analysis was performed on the goal statement that each student completed as a part of the admission process. Holsti (1969) describes three areas that should be addressed prior to beginning a content analysis. They are: 1) the purpose of the analysis; 2) the type of comparisons that will be made; and 3) the research problem to be addressed. The purpose of this content analysis was to describe the characteristics of the goal statement. A comparison between the content of the goal statements and a priori standards were made, and scores were assigned. The research problem addressed was the audit of communication content against the standards.

Methods for coding the information were designated. Decisions were made regarding the categories of analysis, units of analysis and the system of enumeration. The category of analysis, the specific characteristics of the content being analyzed, was comprised of the values and goals which were revealed by the student. The units of analysis included the recording unit and the context unit. The recording unit, the specific segment of content that is characterized by placement into a given category, was the theme or themes of the statement. The context unit, the largest body of content that may be searched for the recording unit, was the entire goal statement. The unit

of enumeration was appearance, whether the theme did or did not appear.

A priori standards for congruency with program goals were determined by members of the Oregon Health Science University School of Nursing Admissions Committee. A list of 34 hypothetical goal statements was developed after reviewing the literature for reasons students return to school (Hillsmith, 1978; Emerson, 1965), characteristics of associate degree, diploma, baccalaureate and graduate education (NLN, 1978, 1978, 1979, 1979), reviewing the philosophy, conceptual framework and terminal objectives of the Oregon Health Sciences University School of Nursing, and surveying graduate students for reasons they thought students might return for a baccalaureate degree. (See Appendix A.) Members of the Admissions Committee were asked to rate each hypothetical goal statement as congruent or incongruent with the philosophy, conceptual framework, and terminal objectives of the school. A summary of the results is in Appendix B. Only items for which there was 90% agreement as to classification of congruent and incongruent were used in the content analysis.

The scoring of the content analysis followed a format described by Williamson (1965). A comparison of the student's goal statement was made with the standards established by the Admissions Committee which had been designated as congruent or incongruent with the goals of baccalaureate education at the Oregon Health Science

University School of Nursing. Five scores were calculated using the comparison information; the goal orientation index, the suitability index, the congruency index, the percentage of omission and the percentage of commission.

The goal orientation index (GOI) determined the percentage of agreement with the Admissions Committee standards in selecting congruent and avoiding incongruent items. A high score on this index indicated that the individual had many goals and that a large number of these goals were congruent with the goals of the Admissions Committee. A low score indicated that the individual was not goal oriented; that the applicant did not have many goals. The GOI was calculated as follows:

$$GOI = \frac{\text{number of congruent items selected minus incongruent items selected}}{\text{total number of congruent items possible}} \times 100$$

The suitability index (SI) was the percentage of congruent items selected. A high score on this index meant that of the goals chosen by the individual, congruency predominated over incongruency. The SI was calculated by the formula:

$$SI = \frac{\text{number of congruent items selected}}{\text{total number of items selected}} \times 100$$

The congruency index (CI) indicated the percentage of overall agreement with the criterion standards. A high

score on this index meant that the individual had chosen a large number of congruent goals and a small number of incongruent goals. The formula to compute this index was as follows:

$$CI = \frac{GOI \times \frac{SI}{100} + GOI}{2}$$

The discrepancy between the goals of the student and those of the Admissions Committee was expressed as the percentage of omission (OM, congruent items not selected) and the percentage of commission (COM, incongruent items selected).

Pilot Study

A pilot study of the content analysis was performed. Subjects for the pilot study were obtained using the goal statements from the currently enrolled class of registered nurse students. Two raters independently analyzed five goal statements according to the *a priori* standards designated by the Admissions Committee as a training session. After discussion of the differences obtained, the tool was slightly modified by adding two categories relating to improvement of assessment skills and patient education abilities. These categories were considered to be congruent with the philosophy, conceptual framework and terminal objectives of the Oregon Health Sciences

University School of Nursing. The remaining 19 goal statements were analyzed by the two raters using the revised standards. GOI, SI, CI, OM, and COM were calculated for each set of analyses. Interrater reliability calculated by Pearson's r was .84 on each measure.

Criterion Variables

Exiting grade point average. The subjects' grades in courses taken after admission to the School of Nursing were recorded from the transcripts. A grade point average using the 4.0 scale was calculated and rounded off to the nearest one-hundredth of a point.

Completion vs. non-completion of the program. If the subjects had graduated during the years 1976 to 1981, they were considered as having completed the program. If they had not graduated during that time period and had not registered for course work within the past year, they were considered as not having completed the program. Students who had enrolled in course work within the past year were not included in this study except as participants in the pilot study of the goal statement analysis.

Data Collection Procedure

A list of all registered nurse students who entered the Oregon Health Sciences University School of Nursing baccalaureate program since 1974 was obtained from the School of Nursing. The following data collection procedures were used to assure the protection of each subject's human rights and anonymity. An employee of the Oregon

Health Sciences University School of Nursing photocopied the goal statement, transcript summary and application form from each subject's record file as maintained in the registrar's office. All identifying marks were removed, and a code number was placed on the material. The material was delivered to the investigator with the code number as the only means of identifying each subject. The investigator recorded and calculated the data as described under the variables section.

Analysis of the Data

Analysis of the data included mean and standard deviations of the age, entry grade point average, number of years of experience and exiting grade point average. Other descriptive statistical information included percentage of students graduating from each type of program; the percentage of full- and part-time students; and the range of ages, grade point averages, number of years of experience and the scores from the content analysis.

In order that the factors could be analyzed as to which predictor was the best and which ones added the most to the predictive abilities, Pearson's correlations among all measures and stepwise multiple regressions on the two criterion variables were performed. These data allowed the study to provide the groups of variables that are most predictive of registered nurse student success (Kim and Kohout, 1975) in the Oregon Health Sciences University School of Nursing baccalaureate program.

Chapter III

RESULTS

Characteristics of the Subjects

A description of the registered nurse students is summarized in Tables 2 and 3. In the sample of 142 students, 93.7% (133) were female, 58.5% (83) graduated from a diploma program and 57.7% (82) attended school full-time. Their mean age was 32.2 years old, they had worked for an average of 6.2 years prior to returning to school and had an entering grade point average of 3.14. The median age was 30.3 years old with a range of 19 to 53 years old. The age distribution was very positively skewed. The median entering grade point average was 3.09 with a range of 2.28 to 4.00. This distribution was platykurtic and slightly positively skewed.

The sample of 142 students was divided into two groups, those who did and those who did not complete the program. Tables 2 and 3 indicate the differences and similarities between these two groups. The two groups were, on the average, the same age, had the same amount of experience, and entered with the same grade point average. The exiting grade point average of the groups who did not complete the program was lower than those who did. A higher percentage of the group who graduated attended school full-time, 65.9% of the group who completed the program compared to 5.3% of those who did not complete.

A somewhat higher percentage of the group who graduated attended a diploma program, 60.2% of the group who graduated compared to 47.4% for those who did not graduate.

Table 2

Age, Grade Point Average, Years of Experience of Sample

	Graduate[1]		Non-Graduate[2]		Total[3]			
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Range	Median
Age (years)	32.3	7.7	31.6	9.2	32.2	7.9	19-53	30.3
Entering Grade Point Average	3.15	.42	3.07	.14	3.14	.42	2.28-4.00	3.09
Exiting Grade Point Average	3.27	.41	2.32	1.12	3.13	.64	0-3.96	3.24
Years of Experience	6.4	5.8	5.3	7.5	6.2	6.1	0-29	-
Hours Taken Prior to Withdrawal	n/a	n/a	30.4	28.9	n/a	n/a		

1 n=123
2 n=19
3 n=142

Table 3

Program, Attendance, Sex of Sample

	Graduate[1]		Non-Graduate[2]		Total[3]	
	N	%	N	%	N	%
Program						
Associate Degree	49	39.8	10	52.6	59	41.5
Diploma	74	60.2	9	47.4	83	58.5
Attendance						
Full-time	81	65.9	1	5.3	82	57.7
Part-time	42	34.1	18	94.7	60	42.3
Sex						
Male	7	5.7	2	10.5	9	6.3
Female	116	94.3	17	89.5	133	93.7

1 n=123
2 n=19
3 n=142

Intercorrelations Among Variables

When considered with the criterion variables, attendance status was the only predictor variable that was significantly correlated at the .01 level (Table 4). Graduation status and exiting grade point average also were significantly correlated at the .05 level.

Intercorrelations among the predictor variables showed that four of the goal statement measures, goal orientation index, congruency index, errors of omission and errors of commission, were significantly related to entering grade point average. Not surprisingly, age and amount of experience were positively related. The type of program which the student attended was also significantly related to the amount of experience. All of the goal statements were significantly correlated among themselves.

Exiting Grade Point Average with Predictor Variables

The six predictor variables accounted for approximately 18% of the criterion variance. Whether the student attended full- or part-time accounted for the greatest part of the variance (10%). All of the predictor variables contributed significantly at the .05 level to the prediction of academic success as measured by exiting grade point average. The suitability index, errors of commission (two of the goal statement measurements), amount of experience, entering grade point average and program accounted for 8% more of the variance. The remaining four variables, age and the remaining goal

Table 4

Intercorrelations Among Variables

	Age	Prog	Att	EGPA	XGPA	Exp	GOI	SI	CI	OM	COM
Graduation	.03	.09	.42**	.07	.50**	.06	.12	.00	.12	-.15	.05
Age		.15	-.08	.05	-.13	.60**	-.10	-.05	-.12	.09	.03
Program			.09	.03	.12	.41**	-.07	-.16	-.07	.03	.10
Attendance				.12	.31**	-.05	.13	.02	.12	-.13	.00
Entering GPA					.14	.11	.22*	.12	.20*	-.17*	-.18*
Exiting GPA						-.11	.13	.13	.12	-.15	.04
Experience							-.03	-.07	-.05	.01	.04
GOI								.68**	.99**	-.95**	-.50**
SI									.65**	-.58**	-.55**
CI										-.95**	-.48**
OM											.23**

* p=.05
**p=.01

statement measurements, accounted for less than 1% of the variance. The amount of variance that each individual variable contributed to the prediction can be seen in Table 5.

Table 5

Stepwise Multiple Regression with Exiting Grade Point Average

Step	Variable	Beta	Std Error of beta	F	Sig	Multiple R	R^2	Overall F	Sig
1	Attend	.33	.12	7.78	.01	.31	.10	12.21	.00
2	SI	.00	.00	1.44	.23	.34	.11	7.07	.00
3	COM	.01	.01	.32	.57	.36	.13	5.42	.00
4	Program	.23	.13	3.24	.08	.38	.14	4.48	.00
5	Experi.	-.02	.01	1.74	.19	.40	.16	4.17	.00
6	Enter GPA	.17	.14	1.52	.22	.42	.18	3.83	.00
7	Age	.00	.01	.20	.66	.42	.18	3.28	.00
8	OM	-.01	.08	.02	.90	.42	.18	2.84	.01
9	CI	-.09	.10	.77	.38	.43	.18	2.55	.01
10	GOI	.08	.12	.41	.52	.43	.18	2.33	.02
	Constant	3.22	7.66	.18	.68				

If the beta weights are considered, only the attendance status is significant at the .05 level when considered by itself. Using all of the variables that entered the regression, exiting grade point average can be predicted with the following equation:

3.22 + .33(attendance) + .00(SI) + .01(COM) + .23(program) + -.02(amount of experience) + .17(entering grade point average) + .00(age) + -.01(OM) + -.09(CI) + .08(GOI)

This prediction is weak and would be, on the average, within ±1.18 of the actual grade point average with a .95 confidence level.

Completion of Program with Predictor Variables

The six predictor variables accounted for approximately 20% of the variance. Once again, whether the student attended full- or part-time accounted for the greatest part of the variance (17%). Three of the five goal statement measurements (OM, COM, CI) and amount of experience accounted for 3% more of the variance. The goal orientation index, age, program and entering grade point average accounted for less than 1% of the variance. The suitability index did not enter the regression because an insufficient level of tolerance was obtained. The amount of variance that each individual variable contributed to the prediction of completion of the program can be seen in Table 6. A regression equation is not presented at this point because such an equation with a nominal criterion variable is not meaningful.

Table 6

Stepwise Multiple Regression with Graduation

Step	Variable	Multiple R	R^2	Overall F	Significance
1	Attendance	.42	.17	23.66	.00
2	OM	.43	.18	12.44	.00
3	Experience	.43	.19	8.54	.00
4	COM	.44	.19	6.54	.00
5	CI	.44	.20	5.28	.00
6	GOI	.45	.20	4.53	.00
7	Age	.45	.20	3.89	.00
8	Program	.45	.20	3.37	.00
9	Entering GPA	.45	.20	2.97	.00

Goal Statements

As can be seen in Table 7, students who did not complete the program had lower scores in the following goal statement measures: goal orientation index, congruency index and errors of commission. These students also had a higher rate of errors of omission. Statistical tests comparing students who completed with those who did not complete were not performed due to the uneven sizes of the two groups.

Table 7

Goal Statement Measures

	Graduate (n=105[1])			Non-Graduate (n=14[2])		
	Mean	S.D.	Range	Mean	S.D.	Range
GOI	7.22	7.13	-7 - 37	4.71	4.14	-4 - 11
SI	78.70	35.82	0 - 100	78.57	38.38	0 - 100
CI	7.32	6.84	-3.5 - 37	4.80	3.87	-2.08 - 11
OM	91.76	6.22	63 - 100	94.50	3.20	89 - 100
COM	4.98	8.99	0 - 33	3.57	9.61	0 - 33

1 18 with missing data
2 5 with missing data

Attendance status of the student appears to be the most significant positive finding of this study. Interestingly, entering grade point average did not assist greatly in predicting exiting grade point average or completion of the program. Goal statement analyses also were not predictive of academic success. A discussion of these results in terms of the conceptual framework of this study will follow.

Chapter IV

DISCUSSION

Four major findings of this investigation were: 1) entering grade point average was not predictive of exiting grade point average; 2) attendance status of the student explained the most variance of the criterion variables; 3) the goal statement analysis was not predictive of academic success; and 4) age only correlated significantly with the amount of experience of an individual. Explanations of these results will be discussed in terms of the conceptual framework of the study.

A somewhat surprising finding in this study was that entering grade point average was not significantly related to exiting grade point average. Previous studies using grade point average with generic students (Burgess, 1969; Clemence, 1978; Knopke, 1979) had indicated that entering grade point average was a strong predictor of success.

This finding may be explained by the lack of variation in the grade point averages. The standard deviation of the entering grade point average distribution was only .42, and .64 for the exiting grade point average. The entering grade point average was slightly positively skewed (.20) and platykurtic (-.83). However, the exiting grade point average was negatively skewed (-2.99) and leptokurtic (12.09). As indicated by the distributions of the curves, the exiting grade point average had somewhat

more variation than entering grade point average because a few cases had lower grade point averages. However, the majority of the sample did cluster together.

Since there was no limitation in the time span under which the entering grade point average could have been earned, a variation in grading standards may have influenced the type of student admitted with a similar grade point average. For example, a 3.14 grade point average (the mean for the sample) may have indicated that the student was above average if earned ten to fifteen years prior to admission. However, with grades becoming increasingly inflated, a 3.14 grade point average earned one to two years prior to admission may not represent the same caliber student. This mixture of different representation of entering grade point average may account for the lack of correlation between the two grade point averages.

Generic students formed the population of most of the previous studies that found entering grade point average predicted exiting grade point average. The lack of correlation between the two grade point averages with this sample of registered nurse students may indicate that the two types of students are different and the same criteria cannot be used to predict success. Academic factors may not be as important in predicting success with older students. The study by Cagiano et al. (1977) appears to support this explanation. In their study of returning

college students, the predictive validity of previous grade point averages decreased as the interruption of education lengthened.

This explanation that non-academic variables may be predictive of success is further supported by the finding that attendance status contributed significantly to the variance of both criterion variables. Possible reasons for this phenomenon may be that the students who attended full-time may have been more committed to the program. This commitment may have been more internally related than externally related to the goals and objectives of the school which is why this commitment did not appear in the goal statement analyses. This finding supports Knowles' and Hilgard's notions concerning goal orientation. The full-time students may have been more committed to the program; therefore, these students were more successful in the program.

Another explanation of this finding may be that part-time students had more extracurricular responsibilities than did full-time students. These students may have found that attending school required more time than they were willing or able to spend, so that they either withdrew or did not do well academically. This study did not investigate the effects of marital status, number of children, working status during school, or extracurricular activities which may have been related to students' attendance status or may have helped to explain more of

the variance of the criterion variables. As stated previously, these variables were not part of the admissions process and this study attempted to review the variables used by the Admissions Committee.

Analysis of the goal statements was a unique part of this study. However, methodological problems may have affected the outcome of these results. Although there was a possibility of 24 congruent goal statements that could have been chosen, the highest number of statements chosen was ten. There were also many more congruent goals than incongruent (24 compared to 6). This was because the initial list of goals rated by the Admissions Committee had few incongruent goals due to the inability to locate any in the literature and through a survey. Difficulty also arose because the committee incorporated goals that the National League for Nursing (1978, 1978) considered congruent with associate degree and diploma programs, into the baccalaureate goals. For example, the National League for Nursing stated that care of individual patients was appropriate for associate degree and diploma graduates but that baccalaureate graduates should go one step further and be able to interact with patients as a group. It is the belief of the faculty that it is necessary for students to learn care of individuals before interaction with groups can occur. Consequently, the committee considered both care of individuals and groups as congruent with the philosophy, conceptual framework and terminal objectives

as they rightfully should be considered. However, methodologically, this presented a problem for this study because it limited the number of incongruent goals.

The finding that goal statements did not significantly contribute to the prediction ability of either criterion variable may also be related to the possibility that goals may have changed from the original writing of the goal statements. Some students may not have known what to expect from the Oregon Health Sciences University School of Nursing program when they were applying for admission. As they became more cognizant of the program, goals may have changed to become more congruent with the school's philosophy, conceptual framework and terminal objectives. This explanation would be supportive of Schwirian's (1979) findings that schools that could predict their students' success after graduation encouraged goal congruence between the student and school.

Another explanation that could be considered is that it did not matter if the student's goals were congruent or incongruent with the school's philosophy, conceptual framework and terminal objectives. Rather, it may have been related to the students' commitment to their own personal goals. Once again, this would support Hilgard's and Knowles' theories of adult learning. Knowles (1973) posited that as individuals grow older, they would base their goals on an increasing amount of life experience. It may have been the commitment to these goals that was

related to the student's success in school. Hilgard's (1966) principle that long range goals affect short range activities would also be supported. Individuals may have had long range goals that necessitated the successful completion of a baccalaureate program.

Although Knowles' theory states that as individuals grow older, they have more life experiences upon which to base their learning goals, this was not reflected in this study. Age and the goal measures were not significantly correlated. Once again, however, this may have been because the goal measures related to the school of nursing's philosophy and not to an individual's personal goals.

The age of a student added only a small amount to the variance of the criterion variables. Age also did not correlate at a signficiant level with any other variable except the amount of experience prior to entering school. This is not surprising; as one gets older, the number of years one could work increases. Contrary to studies by Hutcheson (1979) and Schwirian (1979) and to what would be predicted by Knowles and Hilgard, age was not significant in either completion of the program or exiting grade point average.

The results of this study indicate that registered nurse students are different than generic students and should be treated as such in the admissions process to a school of nursing. Self-selection in conjunction with counseling the student about expectations of the program

may be a good method for admitting registered nurses to a baccalaureate program. These students appear to have a personal commitment which motivates them. The decision to enter a baccalaureate program may be sufficient to predict academic success.

Limitations

This study had some limitations which may have affected the outcomes. Most of the difficulties were related to the statistical analysis and are presented below.

Only 13.4% (19) of the sample did not complete the program. Because of this large difference in the sizes of the two groups, analysis of the data related to completion of the program was difficult. Methods for dealing with this problem, such as randomly reducing the size of the larger group, were considered, but none proved satisfactory. Analysis using t-tests or analyses of variance would produce statistically misleading results since these two tests assume groups of approximately equal size. While recognizing that multiple regression is less powerful using a nominal criterion variable, this form of analysis seemed most appropriate for the data (Goodman, 1976).

Some of the subjects had missing values for the goal statement measures and amount of experience because that information was not available in the student records. This difficulty was handled statistically by a pairwise deletion option. A missing value for a particular variable caused that case to be eliminated from calculations involving that variable only (Kim and Kohout, 1975).

Multicollinearity also proved to be a problem for this study. The goal statement measures were highly interrelated, as might be expected, since they all originated from a common source. Since none of the goal statement measures added significantly to the explanation of the variance of the two criterion variables, inclusion or omission of any of the measures would have made little or no difference in the regression analyses.

Another limitation of the study was that data were obtained from only one school which somewhat limits the generalizability of these results. However, when considered with the numerous other studies predicting academic success, this study aids in the generalizability of some of the adult learning theories such as Knowles and Hilgard. The analysis of goal statements may also assist schools in determining whether or not to require such statements in their admission processes.

The results of this study indicate that only the attendance status of a student predicted academic success of the registered nurse baccalaureate student to any great extent. Possible explanations of these findings were offered in terms of the conceptual framework of this study. Explanations for the lack of a predictive ability for entering grade point average and the goal statement analyses were also presented. With the limitations of the study in mind, a summary of the study follows.

Chapter V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Few studies have investigated predictors of academic success of registered nurse baccalaureate students. This study was conducted to add to the knowledge concerning this group of students.

A retrospective investigation with 142 registered nurse baccalaureate students from the Oregon Health Science University School of Nursing was undertaken. Six predictor variables were examined; they were: 1) age, 2) years of nursing experience, 3) type of program from which the registered nurse graduated, 4) entering grade point average, 5) full- or part-time attendance in the program, and 6) content of the goal statement. The criterion variables were exiting grade point average and completion or non-completion of the program. Analysis of the data was accomplished through multiple regressions and Pearson's correlations.

Findings indicated that whether the student attended the program full- or part-time explained the most variance of both criterion variables. Surprisingly, entering grade point average was not predictive of exiting grade point average. Age did not add significantly to the predictive ability of the criterion variables.

The goal statement analysis was a unique feature of this study. Unfortunately, the measures did not indicate

any significant relationships. This may have been because the congruence of student goals to school goals was not important. Perhaps commitment of the students to their goals was more important and that commitment should have been analyzed.

Based upon the findings of this study, it may be possible that registered nurse baccalaureate students are a different group than generic students. Studies using generic students may not be generalizable to registered nurse students. It may be possible that non-academic factors are more important in predicting academic success of registered nurse students than are traditional academic predictors.

The process of self selection may be a good method for admitting registered nurse students to a baccalaureate program. The criteria normally used by an admissions committee do not appear to be very predictive of success of registered nurse students. Since all of the registered nurses who applied for admission to the Oregon Health Sciences University were admitted and only 13.4% did not graduate, self selection appears to have been successful. These older students appear to have some personal commitment which may motivate them. The decision to enter a baccalaureate program may be enough to determine a successful student.

Recommendations

Further studies using the registered nurse baccalaureate students as the subject should be conducted so that it can be determined if this group of students is different than generic nursing students. Other factors that might be predictive of academic success should be explored. These factors may include extracurricular activities and responsibilities, personality characteristics and personal commitment to obtaining a baccalaureate degree. Methods for clearly requesting, obtaining and measuring these other factors should also be studied.

Jako (1980) proposes a three-dimensional approach to defining and measuring student success. The three dimensions include: 1) success pertaining to program goals, 2) success pertaining to academic achievement, and 3) success pertaining to subjective self-perception. While all three areas need to be further pursued, it is the third dimension related to subjective self-perception that has received the least attention and appears to be most critical to success. Jako has developed a questionnaire that measures self-perception of success in a nursing program. The six categories included in the measure are: 1) competence in nursing major, 2) competence in professional nursing roles, 3) competence in the nursing process, 4) program impact on career competencies, 5) program impact upon personal but career-related competencies, and 6) change, consonant with program goals. These measures may assist

in providing information related to the goals of an individual and success in a program.

Although analysis of goal statements was performed in this study, emphasis may have been placed on the incorrect factor. Studies using a measurement of commitment to personal goals may have produced results that would have been predictive of success.

This study was conducted to assist schools of nursing in their admissions processes. While it has not shown any factors that predict success to a great degree, it has raised many questions. Recommendations for the pursuit of some of these questions have been offered. It is hoped that answers to the perplexing problem of predicting academic success may be found.

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Appendix A

TO: Members of the UOHSC School of Nursing Admissions Committee

FROM: Karen Padrick, Graduate Student, M.N. program

As part of my thesis on determining predictors of success of R.N. students in the baccalaureate program, I am developing a tool which will assist me in analyzing the goal statements which students write as part of the admission procedure to the UOHSC School of Nursing. The purpose of the tool will be to determine statements which are congruent and incongruent with the philosophy, conceptual framework and terminal objectives of this school. In order to accomplish this task, I need your assistance. Please complete this questionnaire and return it to Karen Padrick, L343 School of Nursing, by May 22. If you have any questions, please feel free to call me at 246-2661 (evenings). Do not include your name on this questionnaire. Your cooperation is appreciated although you have the right to refuse to participate. If you choose not participate, please return the blank questionnaire. Thank you.

Please read these statements as if they were student goal statements and respond to their congruence or incongruence with the philosophy, conceptual framework and terminal objectives of the UOHSC School of Nursing. Place a C on the blank to the left of the statement if it is congruent and an I if it is incongruent.

_____ 1. Gain knowledge for employment in an ICU.

_____ 2. Increase development of leadership skills.

_____ 3. Become a nursing administrator at the termination of the program.

_____ 4. Provide a foundation for further study to become a nursing administrator.

_____ 5. Become a nursing educator at the termination of the program.

_____ 6. Provide a foundation for further study to become a nursing educator.

_____ 7. Provide a foundation for graduate study in nursing.

_____ 8. Increase technical skills.

_____ 9. Increase problem solving ability.

_____10. Obtain better grasp of the nursing process.

_____11. Increase knowledge about nursing research.

_____12. Increase depth in clinical skills.

_____13. Obtain experience in community health.

_____14. Specialize in an area of nursing.

_____15. Feel B.S.N. is necessary for nursing to be considered a profession.

_____16. Need to update skills and knowledge.

_____17. Gain knowledge in preventive health.

_____18. Feel B.S.N. will be necessary in order to obtain and maintain employment in the future.

_____19. Desire to influence the profession of nursing.

_____20. Give better patient care.

_____21. Need for increased accountability of nurses.

_____22. Develop competency in collaborating with members of other health disciplines.

_____23. Further personal, educational and professional development.

_____24. Increase knowledge of the operation of the health care delivery system.

_____25. Increase standards of practice.

_____26. Become a nurse practitioner.

_____27. Become a physician's assistant.

_____28. Learn care of individual patients.

_____29. Interact with patients as a group - either as a family or a community.

_____30. Learn about different cultural needs of patients.

_____31. Learn about the physical needs of patients.

_____32. Learn about the psychological needs of patients.

_____33. Develop a theory based practice.

_____34. Become a clinical specialist.

_____35. Other:

Appendix B

Tabulation of Admissions Committee Questionnaire

1. Gain knowledge for employment in an ICU.
   Congruent - 7
   Incongruent - 4

2. Increase development of leadership skills.
   Congruent - 11
   Incongruent - 0

3. Become a nursing administrator at the termination of the program.
   Congruent - 0
   Incongruent - 11

4. Provide a foundation for further study to become a nursing administrator.
   Congruent - 11
   Incongruent - 0

5. Become a nursing educator at the termination of the program.
   Congruent - 1
   Incongruent - 10

6. Provide a foundation for further study to become a nursing educator.
   Congruent - 11
   Incongruent - 0

7. Provide a foundation for graduate study in nursing.
   Congruent - 11
   Incongruent - 0

8. Increase technical skills.
   Congruent - 9
   Incongruent - 2

9. Increase problem solving ability.
   Congruent - 11
   Incongruent - 0

10. Obtain better grasp of nursing process.
    Congruent - 11
    Incongruent - 0

11. Increase knowledge about nursing research.
    Congruent - 11
    Incongruent - 0

12. Increase depth in clinical skills.
    Congruent - 8
    Incongruent - 3

13. Obtain experience in community health.
    Congruent - 11
    Incongruent - 0

14. Specialize in an area of nursing.
    Congruent - 1
    Incongruent - 10

15. Feel B.S.N. is necessary for nursing to be considered a profession.
    Congruent - 11
    Incongruent - 0

16. Need to update skills and knowledge.
    Congruent - 9
    Incongruent - 2

17. Gain knowledge in preventive health.
    Congruent - 11
    Incongruent - 0

18. Feel B.S.N. will be necessary in order to obtain and maintain employment in the future.
    Congruent - 10
    Incongruent 1

19. Desire to influence the profession of nursing.
    Congruent - 11
    Incongruent - 0

20. Give better patient care.
    Congruent - 11
    Incongruent - 0

21. Need for increased accountability of nurses.
    Congruent - 11
    Incongruent - 0

22. Develop competency in collaborating with members of other health disciplines.
    Congruent - 11
    Incongruent - 0

23. Further personal, educational, and professional development.
    Congruent - 11
    Incongruent - 0

24. Increase knowledge of the operation of the health care delivery system.
Congruent - 10
Incongruent - 1

25. Increase standards of practice.
Congruent - 10
Incongruent - 1

26. Become a nurse practitioner.
Congruent - 1
Incongruent - 10

27. Become a physician's assistant.
Congruent - 0
Incongruent - 11

28. Learn care of individual patients.
Congruent - 11
Incongruent - 0

29. Interact with patients as a group - either as a family or a community.
Congruent - 11
Incongruent - 0

30. Learn about different cultural needs of patients.
Congruent - 11
Incongruent - 0

31. Learn about the physical needs of patients.
Congruent - 11
Incongruent - 0

32. Learn about the psychological needs of patients.
Congruent - 11
Incongruent - 0

33. Develop a theory based practice.
Congruent - 9
Incongruent - 2

34. Become a clinical specialist.
Congruent - 1
Incongruent - 10

AN ABSTRACT OF THE THESIS OF

KAREN P. PADRICK

For the MASTER OF NURSING

Date of Receiving this Degree: June 11, 1982

Title: A STUDY PREDICTING SUCCESS OF REGISTERED NURSE BACCALAUREATE STUDENTS IN A SCHOOL OF NURSING

Approved: Christine A. Tanner
Christine A. Tanner, Ph.D., Thesis Advisor

The purpose of this retrospective correlational study was to determine the relationship between success of registered nurse students in a baccalaureate program as measured by exiting cumulative grade point average and completion of the program and the following predictors: 1) age; 2) years of nursing experience; 3) type of program from which the registered nurse graduated; 4) entering grade point average from prerequisite courses; 5) full or part-time attendance in the program; and 6) content of the goal statement which applicants write as a part of the admissions procedure.

A convenience sample of the 142 registered nurse baccalaureate students who entered the Oregon Health Sciences University School of Nursing between 1974 and

1979 was used. The data collection was accomplished through a review of records kept in the School of Nursing and the office of the registrar. A content analysis of the goal statements written by applicants was done. Analysis of the data was through Pearson's correlations and stepwise multiple regressions.

The results indicated that full-time attendance in the program explained the most variance of success as measured by exiting grade point average and completion of the program. Surprisingly, entering grade point average was not predictive of exiting grade point average as it had been in prior studies. Goal statement analysis also did not add a great amount to the explanation of the variance of the criterion variables.

Based upon these findings, it may be possible that registered nurse students in a baccalaureate program are different than generic students. Criteria used to predict successful generic students may not predict successful registered nurse students. Non-academic factors such as extracurricular responsibilities may be more predictive of success of these students. The goal statement analysis may have focused on an incorrect area in this study. Congruence or incongruence of student and school goals was measured. It may have been more appropriate to investigate the student's commitment to personal goals rather than externally controlled factors.

Although this study was not able to predict to any great extent success of registered nurse baccalaureate students, it did raise many questions. The most important question was whether or not registered nurse students are different than generic students and should be treated as such in the admissions process. It is hoped that factors that are significant in predicting success of students may be found so that needless waste of time, effort and resources may be avoided.