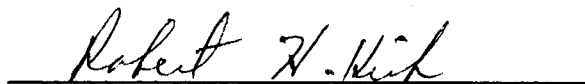


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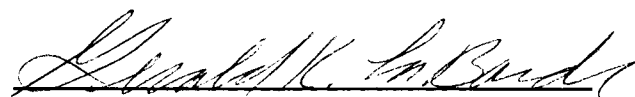
I am submitting herewith a dissertation written by Joan Jessiman Boling entitled "A Comparison of Job Performance of East Tennessee Nursing Assistants Trained by Different Methods." I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Education, with a major in Vocational-Technical Education.


Donald V. Brown, Major Professor

We have read this dissertation
and recommend its acceptance:







Accepted for the Council:


The Graduate School

A COMPARISON OF JOB PERFORMANCE OF EAST TENNESSEE
NURSING ASSISTANTS TRAINED BY
DIFFERENT METHODS

A Dissertation
Presented for the
Doctor of Education
Degree
The University of Tennessee, Knoxville

Joan Jessiman Boling

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ABSTRACT

The purpose of this study was to identify attitudes related to job satisfaction, supervision and job performance of nursing assistants trained by vocational programs and employed in long term health care facilities for one year. Other purposes were to determine if there were differences in the rate of absenteeism, number of times disciplined and the safety record while employed. Nursing assistants trained by on-the-job methods were used as the comparison group.

Questionnaires on job satisfaction and satisfaction with supervision were administered to 121 nursing assistants, 53 trained by vocational programs and 68 by on-the-job methods. The supervisors of the 121 nursing assistants filled out a performance rating evaluation instrument for each assistant.

The null hypotheses were:

1. There is no significant difference of job satisfaction between nursing assistants trained in vocational programs and those trained on the job.
2. There is no significant difference of satisfaction with supervision between nursing assistants trained by vocational programs and those trained on the job.
3. There is no significant difference of scores on the job performance ratings between nursing assistants trained in vocational programs and those trained on the job.

4. There is no significant difference of the yearly absenteeism rate between nursing assistants trained in vocational programs and those trained on the job.

5. There is no significant difference of the number of recorded yearly disciplinary problems between nursing assistants trained in vocational programs and those trained on the job.

6. There is no significant difference of the yearly safety record between nursing assistants trained in vocational programs and those trained on the job.

Conclusions were:

1. Both groups of nursing assistants were satisfied with their jobs, immediate supervision and performed their jobs satisfactorily.

2. Nursing assistants trained on the job were absent less, needed less disciplinary action and had less injuries while employed than vocationally trained nursing assistants.

TABLE OF CONTENTS

CHAPTER	PAGE
I. INTRODUCTION.	1
Background of the Investigation	1
The Problem	3
Null Hypotheses	3
Assumptions of the Study.	5
Scope and Limitations	6
Definition of Terms	6
Organization of the Study	8
II. REVIEW OF LITERATURE.	10
Introduction.	10
Need for Trained Nursing Assistants in Long Term Health Care	10
History of Nursing Assistants Training Programs in the Counties Participating in this Study.	13
Need for Measuring Job Satisfaction	16
Need for Measuring Satisfaction with Supervision.	19
Need for Measuring Job Performance.	20
Need for Studying Absenteeism	24
Need for Studying the Rate of Disciplinary Problems	26
Need for Studying Safety While Employed	28
Summary	30
III. METHODOLOGY	32
Introduction.	32
Background Setting.	32
Background of the Instrumentation Used in the Study	33
Questionnaire on job satisfaction	34
Satisfaction with supervision	35
Job performance rating form	36
Selection of the Sample	41
Questionnaire Management.	42
Job satisfaction questionnaire management	43
Satisfaction with supervision questionnaire management.	43
Job performance rating form management.	43
Collection of Data on Absenteeism, Rate of Disciplinary Problems and Safety While Employed.	44
Cooperation in the Present Study.	44
Analysis of Data.	45

CHAPTER	PAGE
IV. ANALYSIS OF DATA.	47
Introduction.	47
Ho1: Job Satisfaction.	48
Ho2: Satisfaction with Supervision	50
Ho3: Job Performance	53
Ho4: Absenteeism	57
Ho5: Disciplinary Problems	58
Ho6: Safety While Employed	60
V. SUMMARY, FINDINGS AND CONCLUSIONS	64
Summary of the Procedures	64
Summary of the Findings	66
Conclusions	68
Recommendations	69
BIBLIOGRAPHY.	71
APPENDIXES.	76
APPENDIX A.	77
APPENDIX B.	79
APPENDIX C.	82
APPENDIX D.	85
APPENDIX E.	87
APPENDIX F.	89
APPENDIX G.	91
VITA.	93

LIST OF TABLES

TABLE	PAGE
I. Range of Scores on Job Satisfaction from Postive to Negative of Nursing Assistants Trained in Vocational Programs and Those Trained On the Job	49
II. Percentage and F Values of Responses to Questions on Satisfaction with Supervision from Nursing Assistants Trained in Vocational Programs and Those Trained On the Job . . .	52
III. Range of Scores on Satisfaction with Supervision from Positive to Negative of Nursing Assistants Trained in Vocational Programs and Those Trained On the Job.	53
IV. Percentage and F Ratio of the Responses to the Job Performance Evaluation Instrument by Nursing Assistants Trained in Vocational Programs and Those Trained On the Job . . .	55
V. Range of Scores on Job Performance from Below Average to Above Average of Nursing Assistants Trained in Vocational Programs and Those Trained On the Job.	56
VI. Analysis of Variance of Absenteeism Rate of Nursing Assistants Trained in Vocational Programs and Those Trained On the Job.	57
VII. Frequency of Absenteeism Days of Nursing Assistants Trained in Vocational Programs and Those Trained On the Job.	59

LIST OF FIGURES

FIGURE	PAGE
1. Number of Times Disciplined for Both Groups of Nursing Assistants.	61
2. Types of Accidents.	63

CHAPTER I

INTRODUCTION

Background of the Investigation

Warehouses for Death is an abrasive title and it shocks. However, that title was used to describe the magnitude of the deplorable conditions in Canada and the surrounding countries' long term health care facilities by Daniel Baum in 1977.

In the 1970's research intensified in the United States regarding the conditions in which the elderly were institutionalized. Ralph Nader (Townsend, 1971) formed a national task force to study long term health care institutions. The task force drew their conclusions after studying government records, reading more than 100 detailed letters, and observing and gaining actual employment in the industry. The Nader task force has shown that abominable day-to-day living circumstances, unsafe living facilities and inept medical practices exist in these long term care institutions.

Later on in the same decade another study by Horn/Greisel (1977) has shown that providing bedside care to the elderly infirmed was indeed one of the critical problems in long term health care institutions. In the same year, research by Senators Moss and Halamandaris (1977) reported similar serious and typical instances of poor care and behaviors demonstrated by nursing assistants. Moss and Halamandaris (1977) also stated: "Untrained aides and orderlies

are providing 80 to 90 percent of the medical care in nursing homes" (p. 195).

Following more than a decade of national concern about the poor quality of nursing care provided by nursing assistants in long term health care centers, the White House Conference on Aging Report (1981) also recognized the unfortunate plight of these elderly infirmed. The White House Conference (National Council of Senior Citizens) also predicted that by the first quarter of the 21st century greater numbers, more than 15 percent of the elderly will require long term health care services. The report emphasized that: "There must be a plan to ensure humane and appropriate care to assist those presently in homes and those who might enter them" (p. 88).

All of the research studies since 1970 by Townsend, Moss and Halamandaris, and the White House Conference on Aging appear to have one strong commonality. There is a nationwide lack of responsibility for the ineffective job performance by nursing assistants employed in long term health care centers. All these studies demonstrated a need for nursing assistants who are qualified to provide care related to chronic medical problems and have been trained to be alert to the psychological and spiritual concerns of the elderly confined to long term care institutions. Providing the appropriate education of nursing assistants is a major unfilled responsibility.

The number of individuals required to work with the elderly will become greater. Therefore the challenge to provide the necessary care and the appropriate training programs must be a major

concern. With the expansion of vocational education programs over the last 20 years, one of the areas of greatest growth has been in the area of health occupations. Therefore, to meet these growing demands now so widely recognized by the public, further research on the effective job performance of nursing assistants, including nursing assistants trained by vocational education programs is now indicated.

The Problem

There has been an apparent lack of effectiveness in the delivery of health care services to the elderly infirmed by nursing assistants employed in long term health care facilities. Since nursing assistants provide 80 to 90 percent of the hands-on bedside care, research activity must be fostered to determine if our vocational programs are effective and appropriate in the educational preparation they provide in working with the elderly infirmed. Therefore, this study was to assess the comparative effectiveness of vocational health occupation program graduates as opposed to nursing assistants trained on the job and working in long term health care centers.

Null Hypotheses

To achieve the purpose of providing a clearly defined current study on the effectiveness of vocationally trained nursing assistants, information was sought relative to six areas: (1) job satisfaction,

(2) satisfaction with supervision, (3) job performance, (4) absenteeism rate, (5) disciplinary problem rate, and (6) safety while employed. Therefore, the following null hypotheses were tested for significance at the .05 level:

Ho1: There is no significant difference of job satisfaction between nursing assistants trained in vocational programs and those trained on the job.

Ho2: There is no significant difference of satisfaction with supervision between nursing assistants trained in vocational programs and those trained on the job.

Ho3: There is no significant difference of scores on the job performance ratings between nursing assistants trained in vocational programs and those trained on the job.

Ho4: There is no significant difference of the yearly rate of absenteeism between nursing assistants trained in vocational programs and those trained on the job.

Ho5: There is no significant difference of the number of recorded yearly disciplinary problems between nursing assistants trained in vocational programs and those trained on the job.

Ho6: There is no significant difference of the yearly safety record between nursing assistants trained in vocational programs and those trained on the job.

Assumptions of the Study

In order to test the hypotheses of the study, the following assumptions were made:

1. Nursing assistants' performance evaluations were evaluated fairly by the supervisor and not influenced by whether they were vocationally or on-the-job trained.

2. The supervisors participating in the study had similar concepts of management.

3. Records in the four health care centers were accurately kept regarding safety, absenteeism and disciplinary problem rates.

4. That nursing assistants from vocational programs were taught similar concepts as promoted by vocational education regarding job satisfaction and factors in this study relating to job satisfaction.

5. Research in the literature relating to job satisfaction and other related factors in this study were applicable to the nursing assistants.

6. An individual participant's personal values contributing to job satisfaction and the related factors were not controlled.

7. That age, race and sex were not influences to the outcome of this study.

8. While vocational education is designed to be a major influence on attitude development toward work, there was no control over the work attitudes that had been learned since the vocational program ended.

Scope and Limitations

1. The study is of a population of nursing assistants trained by vocational programs and by on-the-job methods and employed in four long term health care centers in the East Tennessee area for at least one year.
2. Inference from the study will have relevance only to vocational nursing assistants training programs as they relate to the nursing assistants employed in long term health care centers in the East Tennessee area.

Definition of Terms

The following terms are defined in order to clarify their meaning for this study:

Absenteeism: Minor (1977) stated job absences are generally considered to be important indicators of worker satisfaction and excessive absenteeism is a major factor contributing to lower productivity (p. 24). For this study job absence is any unscheduled absence, whether it is excused or paid for. Absences for jury duty would not be counted. Absences due to death in the immediate family were not counted. Excused absences for other personal reasons were not counted if the absence was arranged for in advance. Absences for disciplinary time loss were counted.

Job Satisfaction: A preparatory mental posture with which one receives stimuli and reacts to them (Freeman, Kaplan and Saddock, 1972), i.e., an attitude toward work elicits an expression of feeling toward work, this feeling may vary from strongly negative to strongly

positive and would be an indication of a person's job satisfaction (p. 754).

Equal Employment Opportunity Commission, EEOC: Title VII of the Civil Rights Act prohibits discrimination on the basis of color, race, religion, sex, national origin, or age in all employment practices, including hiring, firing, promotion, compensation, and other terms, privileges, and conditions of employment (Newport, 1976, p. 238).

Safety Record: This record is called an incident report and is kept to insure proper evaluation of an employee who is injured or thinks he or she has been injured on the job. Incident reports regarding employee safety are kept on record for a minimum of one year.

Health Care Nursing Assistant: Assists in care of health care facilities' patients, under the direction of nursing and medical staff. Answers lights and bells to determine patients' needs. Bathes, dresses, and undresses patients. Serves and collects food trays and feeds patients requiring help. Transports patients to treatment units using a wheelchair or wheeled carriage or assists them to walk. Drapes patients for examination and treatment and remains with patients, performing such duties as holding instruments and adjusting lights. Dusts and cleans patients rooms. Changes bed linens, records food and liquid intake and output as directed. May clean, sterilize, store, prepare, and issue dressing packs, treatment trays, and other supplies (D. O. T. 355.674-014, p. 241).

Supervisor Nurse: Supervises and directs nursing activities and instructs nurses and para-professional personnel in an organized hospital unit. Assigns duties and coordinates nursing services (D. O. T. 075.137, p. 57).

Staffing Roster: A weekly or monthly time scheduling sheet. This schedule lists days off, holidays, vacations, special requests, i.e., jury duty, illness, bereavement days and any other absences. The time schedule is developed by floors, units and shifts by the supervisor nurse.

Job Performance: Is a unit of work in health care facilities that involves nursing assistants in caring for the comfort needs of the patients. Performance is how effective and efficient the nursing assistant is in accomplishing the assigned unit of work.

Organization of the Study

The study consists of five chapters. The following chapter format was used:

Chapter I contains the introduction, the problem, null hypotheses, assumptions, scope and limitations, definition of terms and organization of the study.

Chapter II contains a review of the related literature including a view of the problem from a historical prospective of the counties participating in this study, background of the instrumentation, need for measuring job satisfaction, attitudes toward supervision, an evaluation of job performance and also a need for studying

the rate of absenteeism, disciplinary problem rate and the safety records of nursing assistants during the hours of employment and a summary.

Chapter III contains the introduction, the background setting, the population and samples surveyed, brief development and management of the questionnaires, data collection procedures, method of processing the data and the summary.

Chapter IV contains the analysis of the data of the questionnaires on job satisfaction, satisfaction with supervision and job performance. The analysis of the results of the data on job satisfaction, satisfaction with supervision, absenteeism rate, disciplinary problem rate and safety rate while employed for one year on the job.

Chapter V contains a summary of the procedures, the major findings which resulted from the analyzed data, and the conclusions which resulted from the analyzed data. Finally it contains recommendations for the nursing assistants programs, for vocational health occupations teachers and administrators of vocational schools, and for administrators of long term health care facilities. The chapter ends with the need for additional research and concluding remarks.

CHAPTER II

REVIEW OF LITERATURE

Introduction

The basic purpose of this study was to determine the effectiveness of vocationally trained health occupations nursing assistant graduates as compared to nursing assistants trained by on-the-job methods and working in the East Tennessee area. This chapter presents a review of the literature and research related to this study. The first section describes the need for trained nursing assistants in long term health care, followed by the history of the training programs in the counties represented in this study. The third section reviews the related literature on specific topics such as job satisfaction, satisfaction with supervision, job performance and the rates of absenteeism, disciplinary problems, and safety while employed. The last section of the chapter is the summary.

Need for Trained Nursing Assistants in

Long Term Health Care

The literature makes apparent the vital need for employment of nursing assistants in long term health care centers. Findings by Ralph Nader (Townsend, 1971) revealed:

Nursing homes operate with a skeletal force of registered nurses; perhaps one for 150 or 200 patients. According to Federal rules, these institutions were required only to have a licensed practical nurse and a few aides (p. 193).

Townsend also stated:

Many aides were found to have warped minds and the teasing and the threats that these old people have to endure is beyond belief (p. 102).

Later research by Horn/Greisel (1977) found that only 7 percent of the nursing staff were registered nurses and that they were usually involved with administration rather than the direct supervision of patient care. In fact the research by Moss and Halamandaris (1977) revealed that:

Eighty-90 percent of the bedside nursing care was provided by nursing assistants and that providing health care services to the elderly infirmed had little attraction for qualified workers (p. 195).

Research by Nader (Townsend, 1971) and his task force has shown that the training of aides they observed in these facilities was inadequate. Nader indicated training was haphazard and often non-existent and added that the primary role of the nursing assistant in patient care makes education a top priority. Describing the situation Nader (Townsend, 1971) received complaints that:

An aide with no experience was left alone on her second night to prepare 20 bedridden patients for bed. One of the patients expressed a desire to get out of bed and go to the bathroom. The aide, having never actually gotten a patient out of bed and having just watched it done once, was not strong enough to lift the patient and ended up rolling her and causing her much pain (p. 55) . . . Another complaint Nader received was that an aide called all the old people the "little people who do crazy things," and said that you can never trust them (p. 56).

In another instance, Nader discovered:

Too often aides insert catheters, give shots and handle patients without knowing what they are doing. Sometimes they lie about their experience because they need jobs so badly (p. 192).

Senators Moss and Halamandaris (1977) reported one nursing assistant as saying: "If you discover a wet bed at 2:30 a.m. don't change it until 5:30 a.m. so we don't have to do it twice" (p. 192). The Senators (1977) also noted:

There is a lack of supervision to look over duties of the poor quality help which is poorly trained. It results in neglect, in patients lying in urine-soaked beds longer than necessary, and in rough handling of patients by the staff that don't have the training to understand what they are doing (p. 193).

Since many aides are hired right off the street or have limited training, quality training might remedy the inadequacies noted. Townsend (1971) has shown that aides get little instruction of any kind and made the suggestion that such inadequacies in patient care may be improved by providing effective aide education. Another suggestion was to find ways to attract competent people via manpower programs, new career programs and the vocational programs that already exist. Townsend (1971) stated that:

Enforcing the training requirement in Medicare standards which state: "training for health care personnel is mandatory" . . . but at present elderly people will continue to suffer needless and intolerable abuses at the hands of the untrained aide (p. 104).

Moss and Halamandaris (1977) suggested making Federal assistants available to educate nursing assistants as they re-emphasized the need for adequate training.

Townsend (1971) felt it is important for the aide to be trained in meeting the emotional and social needs of the patient as well as in meeting the physical requirements of the elderly patient. The White House Conference on Aging as recently as 1981 renewed the needs

expressed by Townsend. Moss and Halamandaris emphasized that long term health care personnel must be trained in the integration of physical, emotional and spiritual approaches to the aging. This type of care requires effective training of nursing assistants, and as the White House Conference on Aging recommended research needs to be conducted on the delivery of these services to the elderly by the nursing assistants.

A review of the research done by Townsend, Moss and Halamandaris and the White House Conference on Aging indicates an apparent lack of education for nursing assistants employed in long term health care centers as a factor in the ineffective job performance of these nursing assistants. Once programs are in place, as in East Tennessee, research to document the effectiveness of health occupation program graduates employed in long term health care centers is indicated.

History of Nursing Assistants Training Programs in the Counties Participating in this Study

The Comprehensive Vocational Education Act of 1963 provided resources for expansion of vocational programs. However, a search of the literature on the history of health occupations training programs revealed no information on the history of such programs on the local level. In contrast, documentation on the history and licensure requirements of registered nurses (RN's) is readily available through the National League of Nursing. The league establishes and develops the criteria for licensure and accreditation of schools of

nursing and information is readily available. Since the information was not readily available on the training of nursing assistants, calls were made to the schools in the area participating in this study to obtain the needed information and particularly to Peggy Long, Director of Health Occupations Adult Education Programs for over 20 years in the Knoxville area. During the last 20 years in the Knoxville area there have been two methods by which nursing assistants have been educated, by vocational programs and on-the-job methods. According to Long (1982) in the Knoxville area prior to 1960, the only method used to train nursing assistants was on the job. This training was done by health care centers and consisted of placing the trainee with an experienced aide, a method known as the "buddy system."

In the early 1960's vocational programs for nursing assistants were begun in Knoxville. A youth and young adult program for training male orderlies for health care failed and was changed to the vocational-technical education for nursing assistants which allowed both sexes to attend the courses. The main thrust of the nurses' aide course was to prepare nursing assistants to perform in all types of health care facilities, but the course did not include a section on working with the specific needs of the elderly infirmed. However, around this time a program for training geriatric nursing assistants designed to train nursing assistants for working with the physical, social, psychological and spiritual aspects of the elderly was started. These programs are still in existence in the

Knoxville area, but they are not offered on a regular basis, being made available only once or twice a year if the demand is presented (Long, 1982).

The vocational-technical nursing assistants adult program in Anderson County was not begun until 1978. The program is offered on a bi-annual basis (Curtis, 1982). In Washington County, the vocational-technical nursing assistants adult program has been in existence since 1943 (Seivers, 1982). However, the adult programs in these counties have the primary intention of preparing participants with basic skills necessary for work in a general health care setting rather than specifically for work with the elderly in long term health care centers.

The first high school health occupations program in Knox County began in 1967 (Freeman, 1982). The high school program in Anderson County began in 1977 (Curtis, 1982) and in Washington County in 1973 (Seivers, 1982). The purpose of the high school health occupations programs is to teach students the basic knowledge, attitudes and skills for job entry level performance and this preparation includes the basic skills needed for working as an assistant in a health care setting.

Since research or follow-up on the graduates of a vocational program is an important method of ascertaining the quality and continued validity of the instructional program, it should be continuous. This follow-up research may include information from the student and employer on such items as job satisfaction, wages/salary,

advancement on the job, and adequacy of the training program received. Knox County did develop a student follow-up survey of June 1978 graduates. The follow-up survey data instrument used by Knox County in 1979 asked for the following information: (1) number that graduated from the course, (2) how many responded to the survey instrument, (3) how many were employed in a related field, (4) how many were employed in an unrelated field and seeking related work, (5) how many were unemployed and whether they were seeking employment or not, (6) those entering post-secondary in a related or unrelated field, (7) those entering the military. None of the questions in this instrument were related to job satisfaction, job performance, or the adequacy of the training received as perceived by the employer or the health occupations graduate.

Therefore, in order to more fully evaluate the effectiveness of the vocational training in the present study, careful attention was given to instruments utilized. Areas the instruments addressed were job satisfaction, satisfaction with supervision and efficiency of job performance. The intent was to obtain reliable information on the effectiveness of nursing assistants, which includes nursing assistants trained by vocational programs and those trained on the job and employed in long term health care centers.

Need for Measuring Job Satisfaction

Townsend (1971) after talking to and investigating the various types of personnel employed in long term health care centers concluded

that "Training and supervision of the attitudes is just as important as learning the skills of the job" (p. 101).

For many years vocational educators have discussed attitude development in vocational classes as one of the most important contributions made to industry because attitudes and morale influence on-the-job performance.

Historically, David Snedden (1929) defined vocational attitudes and performance as:

Certain qualities that can be designated as technical knowledge. More remote qualities such as ideals, morale, understanding of the social significance of work can be designated as social appreciations (p. 102, 103).

These self-understanding and decision-making skills are important ingredients of success in public school as it relates to career preparation.

Evans (1978) has shown there is a positive relationship between self-occupational congruence and achievement in the school shop. Therefore it is important to the vocational education program to instill personal goals and self-satisfaction with positive work attitudes . . . Although the primary purpose of vocational education is helping youth acquire the technical skills to be competent, the curriculum must help students attain personal competence--a goal which couples technical skill acquisition with the acquisition of values, understandings and attitudes which permit students to use skills wisely and more effectively.

One of the rationales for supporting vocational education noted by Conray (1976) was:

The more proficient performance level in the work place is by students from vocational classes . . . it is probably the realistic work environment that is the critical ingredient in vocational programs . . . industrial discipline is an integral part of the vocational education experience. As a result, the training for positive work attitudes may be the most important result of vocational education (p. 4).

Rupert Evans (1978) revealed that vocational educators are particularly challenged by the awareness that employability or placeability are perhaps as much concerned with affective behavior as they are technical, thus suggesting vocational educators and other educators must incorporate into programs the realization that the overriding goal of education is not simply helping youth acquire the technical skills to be competent. Evans stated:

That a goal that couples technical skills with a value system of self understanding and positive attitudes would permit students to use skills wisely and effectively . . . and since the nineteen sixties technical skills alone are insufficient for work adjustment and satisfaction (p. 319).

This finding was supported more recently by Dr. Robert McCan, Associate Professor of Political Ethics, Wesley Theological Seminary, in a paper he presented to teachers attending the East Tennessee Education Association (October 1982). He stated:

That most specific skills are learned on the job, given a background of education and training in the field. The employer wants dependable workers who get along well, show up on time, and have positive attitudes toward work. Therefore, affective learning and teaching are basic in any school system--as important as skill training (p. 3).

Thus, the development of the social aspect of work is important to student success in the world of work. Although according to Evans (1978) most attitudes are learned within family and peer groups,

vocational education has the opportunity to help students discuss and clarify vocational attitudes and values as well. Self-understanding assists the student in developing positive work attitudes in the school shop that can be transferred to the job.

Therefore, studies need to be done to determine if the attitude development taught in the health occupations nursing assistants vocational programs, as indicated by the review of the literature, is evident after a year of employment of nursing assistants trained by vocational programs. Although measuring and developing good attitudes is an obscure task due to the intangibility of the subject, it stands to reason if workers have a positive attitude toward work you are likely to find workers who are satisfied with the functions of supervision.

Need for Measuring Satisfaction with Supervision

Supervision requires the ability to plan, organize, direct and control the activities of an area of work. Supervision also requires an art for motivating employees to satisfactorily complete an assigned amount of work.

Other than the responsibility of obtaining the organizational goals according to Walton (1975) supervision must: "Approach the issue of quality of life; we must acknowledge the diversity of human preference-diversity relating to culture, social class, family rearing, education and personality" (p. 359). It is clear that management must develop appropriate mechanisms that will permit flexibility whereby

individual differences of the nursing assistants can be fused into the work environment.

Thus research is needed to determine if nursing assistants trained by vocational programs reveal a positive response to supervision. A positive response to supervision will eliminate the actions of supervision as a negative variable in this study. If a worker is job satisfied and has a positive response to supervision it follows that one might expect the workers to be efficient and effective in the work performed if adequately trained.

Need for Measuring Job Performance

Performance ratings are used in health care organizations. The purpose of evaluation according to Rowland and Rowland (1980) is to:

Reduce to objective terms the performance indicated in their job description. Another purpose for performance appraisal is to meet the requirements of accreditation bureaus that license health care facilities (p. 311).

One process commonly applied to determine efficient job performance is use of a job evaluation instrument filled out by an employee's supervisor. This instrument allows a score to be obtained for each employee. Donald Treeman (1979) described job evaluation as: "A formal procedure for hierarchically ordering a set of jobs or positions with respect to their value or worth, usually for the purpose of setting pay rates" (p. 1).

Although there are numerous types of forms for the evaluation and appraisal of workers, the following were listed as factors that

served as criteria most frequently used in performance ratings for workers:

Supervision required, attitude, conduct, cooperation, job knowledge, safety, house-keeping, adaptability, absenteeism, tardiness, judgement, quality of work, and quality of performance (Rowland and Rowland, 1980, p. 319).

A very limited number of job performance appraisal instruments have been tested for reliability and validity.

The question was asked by Hamner and Schmidt (1979) whether performance appraisals are accurate. Generally, the criterion used to appraise job performance has not been an objective evaluation in the form of performance ratings by supervisors. With a sample of Caucasian personnel, Hamner and Schmidt (1979) had shown that:

Supervisory ratings were accurate in the sense that as performance increased the performance ratings of those subjects increased, but that male versus female subjects and black versus white subjects were rated differently by supervisors even when the subjects' performance remained the same and introduced the possibility of rater bias in the evaluation process (p. 227).

Hamner and Schmidt (1979) noted other issues concerning the nature and administration of appraisal forms that have already been raised and decided in several court cases. For example, in the litigation of Griggs versus Duke Power Company, the United States Supreme Court ruled that standards and tests used as a condition of employment in or for transfer to jobs must be shown to be significantly related to successful job performance. The actual litigation concerned

the viability of the General Educational Development (GED) test required for all promotions to the lineman job in this power company. Any test used must measure the person for the job, not the person in the abstract. Job appraisals often have been used to disqualify rather than qualify or recommend a person for a position. Hamner and Schmidt (1979) stated that:

Any selection instrument, if it has an adverse impact on the employment opportunities of any protected group, may need to be justified following the Equal Employment Opportunities Commission (EEOC) Guidelines on employee selection procedure (p. 229).

According to Marshall and Schau (1979):

The EEOC Guidelines identify a test as any paper and pencil or performance evaluation measure used as a basis for employment decision. The paper and pencil performance evaluation measures clearly fall within the dictates of the EEOC. Thus, such evaluation measures must be properly constructed and valid as a true measure of employee capability and job performance (p. 37).

However, the problem is broader in perspective than simple adherence to EEOC guidelines. Marshall and Shau (1979) have shown that performance evaluations are commonly used in the selection of employees for promotion. Managers find that most performance evaluation measures are hopelessly subject to personal bias and cannot be reliable and valid as tools for either promoting or firing an employee.

Despite the difficulty of finding reliable and validated instruments to test job efficiency, the nursing profession is accountable to the public and to itself for the establishment and maintenance of high standards and quality care. West, Sudbury, and Ayer (1979) stated that "The difficulty of objectively measuring

performance in such a service industry is well-known" (p. 34). They conclude that the following weaknesses are demonstrated in most appraisal instruments:

Employee evaluation criteria are often vague. The evaluation form encourages subjectivity on the part of the rater.

Frequently, personality traits are emphasized rather than achievements.

The evaluator form is used for all employees regardless of job position.

When employees are rated against others, the evaluator frequently does not make the necessary distinctions. Almost everyone is rated as good (p. 32).

However, the current method of operation in most companies and health care facilities is to continue utilizing the standard performance evaluation methods although they have proven to be highly subjective and a poor indicator of an employee's potential or worth. The long-range effect is that employees tend to react personally to the appraisal's by being affronted by its criticism or content. If the instrument were more valid, its contents could be utilized as a standard by which employees could seriously regard their need to improve work habits and attitudes (Hamner and Schmidt, 1979).

Jean Lewis, RN and Director of Personnel, Fort Sanders Regional Medical Center, Knoxville, Tennessee, stated:

Within the next ten years external accreditation bodies will probably require a valid and reliable performance instrument that objectively measures job performance for all personnel.

Thus, in long term health care industries the need for a valid and reliable instrument for testing the effectiveness of nursing

assistants is vitally important. Included in measuring the total effectiveness of an employee is the regularity of his/her actually being on the job when scheduled or the absence of absenteeism.

Need for Studying Absenteeism

Absenteeism has become a major problem for all types of industry and appears to be increasing with time. Job absence may be defined as any unscheduled absence. The unscheduled absence usually shifts an additional workload on remaining personnel. Thus, the possibility of lessening the efficient and effective care given to the patient is increased. This also magnifies the possibility of creating added safety risks and generating poor attitudes among employees.

In most organizations, personal illness accounts for a majority of paid leave taken. How much of sick leave is misused is open to speculation since few organizations require documented proof of illness (Powell, 1980). However, Powell noted that:

The causes of employee absenteeism are often diverse and highly interrelated, involving personal, attitudinal and organizational factors . . . and many experts think that a substantial amount of sick leave is used for reasons other than illness, especially short-term absences of a day or two (pp. 1,2).

John Robinson (1974) suggested that repetitive, meaningless, and unchallenging work promotes absenteeism. Trouble with coworkers, transportation problems, readjustment problems, and a feeling that one's own absence has no effect on another's work are other major

factors leading to employee absenteeism. Smarden (1974) stated that: "Employee absenteeism can be contagious, that bad attendance habits of coworkers may influence the over-all employee absence rate" (p. 13). Some see the rising affluence of the American worker, the summertime blues, job dissatisfaction, a don't care attitude, underemployment, the two-job syndrome, smoking and drug abuse as additional contributions to employee absenteeism.

John Robinson (1974) found that the exact cost of employee absenteeism is unknown but: "Industry loses about 5 million dollars per year because of absenteeism . . . and when industry adds billions of dollars for sick pay and fringe benefits, it is no surprise that absenteeism has been called a monumental headache for U. S. industry" (p. 26). However, research by Mirvis and Lawler (1976) measured the financial impact of the attitudes of 160 tellers in a midwestern bank. The results showed that an increase in the job satisfaction of the worker could save the company \$17,664 by the reduction of absenteeism by decreasing turnover and improvement in performance (p. 8).

The assumption that pervades the literature on employee absenteeism indicated that all absenteeism harms the functioning of an organization. According to Gaudet (1973), "A company can expect that a reasonable level of absence should be about three percent of available work time" (p. 46). Johnson and Peterson (1975) noted that "Monthly absences greater than five or six percent should be a matter of serious concern to organizational management" (p. 572).

A number of studies have found that a strong personal work ethic, i.e., a belief that work occupies an important place in one's life, influences the propensity for employees to come to work. Morgan and Herman (1976) reported that when an employee is committed to the organization's goals and objectives and is willing to work toward achieving them that increased attendance will result. But, if an employee's commitment lies outside the job, there are less internal pressures for that employee to attend work (p. 739).

Since the review of the literature revealed limited information regarding the absentee rate of nursing assistants trained by vocational programs, studies need to be conducted to determine if there is a problem with absenteeism. According to the directors of nursing participating in this study, one of the major documentations on disciplinary problems was the number of times a nursing assistant was absent from work.

Need for Studying the Rate of Disciplinary Problems

Absenteeism is one of the behavior practices indicating problems on the job.

Steins (1982) reported that: "A problem with an employee will affect everyone in the environment" (p. 29). Steins had shown that "Failure to take disciplinary action results in contagious deviant behavior, a decrease in morale and absenteeism . . ." and that,

. . . although discipline is inherently internal some aspects of discipline are external to the individual . . . an organization can drive its members to deviant behavior and cause

institutional discipline problems Outside pressure, marital problems, racial and cultural backgrounds, political stance, social status, etc. have a subtle but continuous impact on job behavior, causing frustration and disruptive employee behaviors" (p. 31).

Steins also listed the following as the kinds of discipline problems seen in industry: "Insubordination, absenteeism, incompetence and fighting" (p. 32). In a different study, research by the Moss subcommittee on health care indicated the following were kinds of discipline problems in long term health care: cruelty, negligence, fire hazards and unnecessary regimentation of patient care by untrained nursing assistants.

In the present study conversations with the directors of nursing on types of discipline problems revealed absenteeism was a number one concern. This problem was followed by ineffective job performance and problematic interpersonal relationships which included fighting on the job. These findings support the earlier findings of Horn/Greissel.

In a health care facility, patients have a right to be protected from disruptive individual behavior. It is important that research be conducted to determine if disciplinary problems occur with nursing assistants trained by vocational programs. It seems apparent from the review of the literature that safety for the patients and staff was a dimension of the disciplinary problems encountered, emphasizing the need to study safety while employed.

Need for Studying Safety While Employed

A licensure agency involving long term care facilities in California was experimenting with using photographs to document health and safety violations. According to Horn/Greissel (1977): "The state attorney general's office initiated the program for training investigative teams to use cameras to photograph evidence of violations where possible" (p. 84). This may seem like an extreme endeavor, but few attempts have been made to determine cause and effect relationships between attitudes and accidents, partly due to the relative intangibility of attitudes that could have caused accidents. A study in the 1940's by Brady investigated causes of accidents among street car motormen and bus operators indicated:

Accident-proneness was found to be associated with a number of factors, including an uncooperative attitude as indicated by records of insubordination, operating delinquencies, and failure to report for duty (p. 47).

Herbert Moore (1942) found that the proper attitude toward one's work as a condition of complete cooperation with peers is as important as the acquisition of adequate skills. Moore felt that:

The absence of a proper attitude expresses itself in irritability, disparaging remarks and constant critical demeanor. Because of the distractability of the person with these traits, he becomes a victim of an accident whenever anything unusual happens in the work situation (p. 365).

With the passage of the Federal Occupational Safety and Health Act (OSHA, 1975) and the development of safety standards for health care facilities, Evans (1979) felt that the safety function of employees should be made a part of the general orientation program

in every industry. This is usually a function of the personnel department (p. 206). It is imperative that the nursing assistants employed by health care facilities have a knowledge of and positive attitude toward safety and become familiar with the OSHA regulations. The health care nursing assistant is responsible for his/her peer and patient safety while employed.

Persily and Lehman (1979) noted that:

The hospital is the place where patients get treatment for their ills and employees too often get back strains, needle punctures, electric shocks, and exposure to noxious gases, drugs, radiation and virtually every infectious disease that comes down the pike (p. 7).

These researchers also noted that back strains caused by lifting patients and moving beds are especially prevalent among nurses and nurses aides. Unfortunately, nursing staff members are also susceptible to slipping and falling. Safety officials rank falls among the most severe as well as the most common cause of injury.

The emergency nature of hospital work may be responsible for many of the falls or other accidents. However, the major function of the hospital, namely the diagnosis and treatment of disease, exposes hospital workers to a variety of health hazards. Persily and Lehman (1979) noted that:

Infections, for example, can be transmitted, not only by needles, but by contact with linens, operating room wastes, blood samples, and body wastes. The problem of infection receives perhaps more attention than other hazards, if only because the Joint Commission on Accreditation of Hospitals requires controls (p. 9).

Therefore, procedures in infection control are taught to nursing assistants. Donovan, Beljoe and Dillion as early as 1968 noted in

the opening chapter of their book on the training of nursing assistants the warning that hospital cleanliness is of utmost importance (p. 9).

According to Persily and Lehman (1979):

Approximately 4,403,000 Americans work in hospitals. Because the patient is the primary concern, the employee has had little attention. Consequently, no wide-scale survey of infection control/safety occupational hazards to employees was ever conducted until the National Institute for Occupational Safety and Health accepted the challenge several years ago (p. 6).

Safety education is now a part of the nursing assistants training course. According to Donovan, Beljoe and Dillion (1968), safety precautions are divided into those regarding accident prevention, fire prevention, and infection control. Therefore, with the emphasis attached to the various aspects of safety by the Joint Commission on Hospital Accreditation and the vocational nursing assistants programs, it seems important that a study be done to determine if nursing assistants trained by vocational programs are practicing safety while employed.

Summary

The need for and the development of Health Occupations Education Programs are apparently growing, and one of the observations made as a result of the review of the literature is the ineffective job performance of nursing assistants in long term health care facilities. Therefore studies are needed to determine the effectiveness of the vocational nursing assistants programs.

The research also suggested that workers from vocational programs may perform better on the job, that vocational education is a process that gives people an opportunity to develop their potential and become better adjusted workers. The research implies that vocational education includes work on a suitable balance of job conformity that helps the worker adjust to his/her world of work.

Several other observations may be made as a result of this review. First, it was fairly evident that interest in job satisfaction has created massive amounts of research. Second, the research demonstrates that absenteeism, disciplinary problems and safety while employed are a dimension of and related to job satisfaction. Therefore, studying the dimensions of job satisfaction is a viable method to help evaluate attitudes toward work and job performance.

CHAPTER III

METHODOLOGY

Introduction

The basic purpose of this study was to assess the effectiveness of Vocational-Technical Health Occupations Programs' graduates working in long term health care centers after one year of employment and to make recommendations for needed improvement based on the findings.

This chapter describes the procedures used in the present study. The sections include the background setting, background of the instrumentation, selection of the sample, questionnaire development, management, data collection on absenteeism, disciplinary action and safety while employed, cooperation in the present study and analysis of data.

Background Setting

The basic goals and philosophy of National Health Corporation were established when Dr. Carl Adams purchased his first long term health care facility in Murfreesboro, Tennessee, in 1971. Dr. Adams had developed a concern about the care given to the elderly. One of his goals in entering the long term health care industry was to help each patient to maximize his/her potential so that he/she could function at the uppermost of his/her capabilities (National Health

Corporation Annual Report 1980, p. 3). Since 1971, the National Health Corporation has purchased more long term care facilities and upgraded the care to meet the corporation's philosophy and concurrently is attempting to receive external accreditation.

Usually it is difficult to gain access to the long term health care facilities to conduct research. However, due to National Health Corporation's interest in providing quality care and their recognition of the need for research regarding better trained personnel (National Health Corporation Annual Report 1980), permission was given to study job satisfaction. Concurrently, permission was given to study satisfaction with supervision, job performance, rates of absenteeism, disciplinary problem rate and safety while employed of nursing assistants trained by vocational programs and nursing assistants trained by on-the-job methods.

Judy Williams Powell, RN, nursing consultant, and Faye McRady, RN, Director of Continuing Education for National Health Corporation, had previously made the observation that the attitudes and performance of some nursing assistants seemed to be more positive regarding bedside nursing care. It was not known if this positive attitude reflected a particular type of training. Therefore, this study was initiated.

Background of the Instrumentation Used in the Study

Two questionnaires, one used on job satisfaction which is designed to provide information on job satisfaction and one used on

satisfaction with supervision, were administered to the nursing assistants participating in this study. A job performance rating form was filled out by the supervisor of each nursing assistant participating in the study.

Questionnaire on Job Satisfaction

The instrument used in the present study to evaluate job satisfaction was developed by Brayfield and Rothe (1951, pp. 307-311).

The construction of the Brayfield and Rothe scale was developed for members of an Army Specialized Training Program (ASTP) in personnel psychology at the University of Minnesota. The 77 men cooperating in developing the instrument ranged from unskilled laborers to professionals with several years occupational experience. The results of approximately 1000 statements were distributed for judging. After tabulating the results the Quartile (Q) values with a Q value of 200 or above were chosen. The items chosen were administered to two sets of employed female workers and a rank order correlation was computed. The items were reviewed and replaced until repeated testing gave the Spearman-Brown formula as .77 which the authors believed to be satisfactory for further experimentation. The 18 items selected were further tested in classes in Personnel Psychology at the University of Minnesota evening school.

This 18 item index was used by Dr. Ken Tanner, a former professor in Education, The University of Tennessee, Knoxville, and reported by him in a discussion to be reliable at the .88 level.

In the present research study, by the way of a pilot study, the instrument was administered to 20 nursing assistant students who had just completed 120 hours of education in nursing assistant training through Staff Development, Fort Sanders Regional Medical Center, Knoxville, Tennessee. Their instructor was also asked to rate each nursing assistant in a parallel assessment as a predictor of their job satisfaction. A correlation using linear regression of the new nursing assistants' scores with the instructor's predictor score was computed. For this pilot study, an r value of .85 was obtained. According to Brayfield and Rothe, who obtained a .77 r value, .85 and .88 r values are considered satisfactory. The 18 item instrument by Brayfield and Rothe as assessed in this pilot study was considered acceptable to use in the present study by the writer's graduate committee.

Satisfaction with Supervision

The satisfaction with supervision questionnaire was developed by Richard Draper, Purdue University, Indiana, and can be found on the University Microfilms, Inc. Pub. No. 11.622 (Robinson and Attnanasiou, 1978).

The scale attempts to measure workers' satisfaction with immediate supervisors. The items in the questionnaire were selected from questionnaires previously used by management at a midwestern farm tractor manufacturer and through consultation with management personnel. The scale was administered to 1345 of the farm tractor plant's non-managerial employees. Dr. Draper found a split half

coefficient of .91 on a random sample of 250 of the questionnaires. An item analysis of a random sample of 500 of the questionnaires indicated that all the items retained in the scale discriminate at the .01 level. Certain items were eliminated when their discrimination level was low. The study for which this scale was developed revealed that higher levels of management influence employee attitudes and that only a slight relationship between work pacing (i.e., the amount of freedom which an employee has to work at his own rate of speed) and attitude toward supervision exists. All 14 items reported by Dr. Draper as valid and reliable were used in this study.

The purpose of utilizing a questionnaire on satisfaction with supervision in the present study was to ascertain whether supervision did or did not have an effect on the job performance of the participating nursing assistants.

Job Performance Rating Form

The instrument for measuring job performance for nursing assistants was developed by the Seattle Veterans Administration Hospital (Marshall and Shau, 1979, pp. 37-40).

The instrument measures the performance of non-professional nursing personnel and was developed to conform with the guidelines of the Office of Federal Contract Compliance and the revised guidelines of the Equal Employment Opportunity Commission (EEOC). The EEOC guidelines identify a test as any paper-and-pencil or performance measure used as a basis for any employment decisions. The

discrimination values of the categories obtained by the developers Joann Rice Marshall and Edward Schau, Ph.D., both of the Seattle Veterans Administration noted all the correlations were significant at the .01 level. The rating form is considered valid according to EEOC guidelines (Marshall and Schau, 1976).

The initial step in the construction of the rating scale was to define the categories of work performance for nursing assistants. Two nursing instructors defined these categories in the original study. The categories were general in nature and could be described as traits. The next step was vital in the transition from a trait-oriented to a behaviorally-oriented system. The categories were listed on sheets of paper with enough space below each category to write descriptive statements. Beside the name of each category was a sample statement descriptive of characteristic work performance under that category. For example, next to "initiative" was the phrase "reports broken and defective equipment."

All head nurses and nursing assistants were then approached individually and asked to add more phrases to each category. The observable result was a total of 253 phrases, most of them behaviorally oriented.

The third step was to develop discrimination indices for the 253 phrases. The discrimination value is a numerical score which describes a phrase's ability to distinguish between good and poor performances. The discrimination values could help determine the weights for the phrases. Higher discrimination values indicate a

better ability to discriminate between good and poor performance. Twenty nurses, both head nurse and staff, participated in this step. Each nurse was individually instructed to think of the best nursing assistant she had ever known and to rate each of the 253 phrases on a scale of 1-5 depending on how well each phrase described the nursing assistant being considered. Each phrase, then, generated an average value based on the 20 ratings given to it. After this, each nurse was asked to repeat the process, thinking of the worst nursing assistant ever known. The discrimination value is computed by subtracting within scale value the frequency pertaining to the poor ones. The differences are summed and the sum is the discrimination value.

The final step in the construction of the instrument was accomplished by three nursing instructors. Each was asked to independently choose from among the phrases available from each category. The discrimination values were helpful in this process as they provided validating evidence of the phrase's ability to distinguish between good and poor performers. The four phrases for each category were chosen according to how many nominations each phrase received. A single nurse instructor employed arbitrary judgement in choosing phrases when ties existed. In its final form the instrument consisted of 18 categories of work performance, with four descriptive phrases under each category. The phrases were descriptive of work performance against which standard the work performance of employees would be judged.

In order to validate the form in the instrument development process, copies were given to 14 raters: seven head nurses and a single staff nurse under each head nurse. Three or four nursing assistants were evaluated by each rater and staff nurses rated the same persons as their head nurses. A total of 25 nursing assistants were evaluated. The rater was instructed to rate each person with respect to each of the 72 phrases and to attach a score on a scale of 1-5 according to how well each phrase described the person's work performance. Potentially, the lowest score was 72 and the highest was 360. Validation was accomplished by correlating the new rating form scores with those derived by the paired comparison method. Each rater was given a list of comparisons involving the nursing assistants she was rating. If a head nurse had four nursing assistants to rate she was given a list with six comparisons, each nursing assistant paired once with each of the other nursing assistants. The rater was instructed to select the best nursing assistant in each pair. With four nursing assistants involved, scores ranged from zero nominations to three. With three involved the nominations ranged from zero to two. In order to correlate the rating form scores with the paired comparison scores, the paired comparison scores were converted to centile scores. Weights were next attached to each category according to the average discrimination value of the category. Eighteen categories were involved. A weight of nine was given to the two highest categories, a weight of eight to the next two, and

so on. The correlation between paired comparison scores and weighted graphic rating scores for head nurses was .72.

It is noted that all the correlations obtained were significant at the .01 level. Therefore the rating form is considered validated according to EEOC guidelines.

To reduce this 80 item questionnaire to a manageable size for the present study, a group of 15 nursing assistants employed in the long term care rehabilitation center, Fort Sanders Regional Medical Center volunteered to list the ten items from the rating form they found were the most important in their daily work performance. A frequency distribution of the performance items listed by the nursing assistants was accomplished. The top 20 items in the frequency distribution was used to reduce the 80 item scale (Appendix D) to a more manageable scale. Dr. Walter Cameron, professor of research design, The University of Tennessee, Knoxville, was consulted regarding methodology for establishing the validity of the abbreviated instrument. A face validity was obtained by asking eight registered nurses from the staff of the Rehabilitation Center, Fort Sanders Regional Medical Center, who volunteered to rate nursing assistants they supervised on the 20 item performance rating form. The registered nurses rated the same nursing assistants at one week intervals. The rating forms were scored and the data was correlated using linear regression. The r value of .92 was obtained. This value was accepted as valid for use in the present study since Marshall and Schau previously obtained a .72 correlation.

Selection of the Sample

The nursing assistants selected for this study were employees of National Health Corporation. Since the long term care facilities owned by National Health Corporation are located over a wide geographic area, cluster sampling, as described by L. R. Gay (1981, pp. 93-95) was used to condense the area for this study. According to Gay this cluster sampling does not affect the validity of the sampling procedure. The Corporation is divided into three geographical areas, East Tennessee, Middle Tennessee and West Tennessee. Corporate owned facilities in the surrounding states that are in close proximity to any of the three regions were considered a part of that region. The three regions were listed on separate pieces of paper and dropped in a container. The East Tennessee area was drawn randomly by selecting that piece of paper from the container. The facilities owned by National Health Corporation and located in the East Tennessee region were listed by clusters of four according to their proximity in the area and dropped into the container. A cluster of four health care facilities in Knox, Anderson and Washington Counties were randomly selected by drawing the paper listing the cluster from the container. The Regional Administrator for the East Tennessee Area Health Care Facilities selected by cluster sampling for this study then wrote letters of approval for the study to the Administrators and Directors of Nursing of the health care facilities (Appendix A).

Telephone calls to the four Directors of Nursing revealed that the total number of nursing assistants employed by the four facilities at that time was 204. Of these 204 it was estimated that 151 had been employed for one year or longer that were either vocationally trained or trained by on-the-job methods.

For this study each health care center selected was visited by the researcher. The director of nursing in each of the four health care facilities identified from the staffing roster the names of the nursing assistants who were trained by vocational programs and those trained by on-the-job methods. The method of choosing the participants was by systematically selecting every other name that was identified as being trained by vocational programs or by on-the-job methods and employed for one year or longer. The sample was selected irrespective of whether the individual was male or female. Also age was not a consideration.

Questionnaire Management

Two questionnaires, one on job satisfaction and one on satisfaction with supervision, were administered to the nursing assistants volunteering to participate in this study. The two questionnaires required approximately 30 minutes of the nursing assistant's time to complete. A job performance rating scale took approximately 15 minutes of the nursing assistant's immediate supervisors' time to complete.

Job Satisfaction Questionnaire Management

The job satisfaction instrument (Appendix B) was given to those on duty while the researcher was there, or as the employees were scheduled to work they were handed an envelope with the instrument in it by their supervisor. The employees filled out the instrument at their leisure and returned the questionnaire in the envelope to the director of nursing.

Satisfaction with Supervision Questionnaire Management

The satisfaction with supervision instrument (Appendix C) was administered to the nursing assistants on duty at the same time the job satisfaction instrument was given. For employees not on duty during the researcher's visit, the satisfaction with supervision instrument was placed in an envelope with the job satisfaction instrument and given to the employee to fill out by his/her supervisor when the employee returned to work. The employees filled out both the forms in their leisure and returned them in the envelope to the director of nursing.

Job Performance Rating Form Management

The job performance instrument (Appendix D) was given to each of the supervisors of the nursing assistants participating in the research project. The rating form took approximately 15 minutes of the supervisors' time to complete and upon completion was returned to the director of nursing.

Collection of Data on Absenteeism, Rate of Disciplinary
Problems and Safety While Employed

The information on the rate of absenteeism, rate of disciplinary problems and safety of the nursing assistants participating in the project were gathered with the assistance of the director of nursing or her designee from each nursing assistant's personnel record. The total days of unexcused absences, total number of times disciplined and safety record were noted on instruments designed by the researcher to record this data (Appendix E and F).

Cooperation in the Present Study

From the four long term health care centers participating in the study, 121 nursing assistants responded to the survey questionnaires. Of these 121 nursing assistants, 53 were vocationally trained and 68 were trained on the job. Each participating nursing assistant had been employed approximately one year or longer.

The initial questionnaire response yielded by the two participating health care centers in Knox County was 85 percent.

The initial questionnaire response yielded by the participating health care centers in Anderson County was 88 percent.

The initial questionnaire response yielded by the participating health care centers in Washington County was 72 percent.

The total initial response rate was 81.5 percent. Therefore, since a high yield of response was obtained on the initial survey, additional questionnaires were not sent out to the non-respondents.

The directors of nursing made a personal follow-up on the questionnaires not returned. Those not returning the survey instruments had preferred not to participate.

Analysis of Data

The independent variables for this study were the two methods of teaching, that is a vocational program or an on-the-job training program. The dependent variables were their job satisfaction, satisfaction with supervision, job performance ratings, absenteeism rate, disciplinary problem rate and safety records while employed.

Statistical treatment of data included using an analysis of variance utilizing the Statistical Package for the Social Sciences (SPSS). The analysis of variance using the SPSS system had the added feature in that it can cope with unequal cell sizes, therefore making it satisfactory for use in the social sciences. The SPSS system also has a missing option package that allows for unanswered items in a questionnaire to be coped with statistically (SPSS Manual, 1975). The analysis of variance was used to determine if there was a significant difference between both groups of nursing assistants on each item in the questionnaires and on the null hypothesis, job satisfaction, satisfaction with supervision job performance and rate of absenteeism.

Chi square was used to determine if there was a relationship between both groups of nursing assistants and their frequency of disciplinary problems and safety while employed.

Bar graphs were developed on the number of disciplinary problems both groups of nursing assistants had and on the types of accidents listed on the data gathering sheet for safety while employed.

CHAPTER IV

ANALYSIS OF DATA

Introduction

The overall purpose of this study was to assess the effectiveness of employed nursing assistants who had graduated from vocational-technical health occupations programs as compared to nursing assistants trained on the job. To collect data, two questionnaires on job satisfaction and satisfaction with supervision were selected and administered to the participating nursing assistants. A job performance rating form was filled out by the immediate supervisor of each nursing assistant. Data on absenteeism, number of times disciplined and job safety were gathered from each participating nursing assistant's personnel file.

The population for this study was comprised of 121 nursing assistants; 53 trained by vocational education and 68 trained by on-the-job methods. The nursing assistants were employed for one year or longer by four long term health care facilities in the East Tennessee area.

The hypotheses of the study were tested by using an analysis of variance, chi square and percentage distributions. Each of the null hypotheses are presented in the following manner:

1. A brief description of the scoring.
2. Reporting of the over-all F or chi square.

3. Report of the individual item significant differences on the questionnaires, and presentation of the related tables.

4. Over-all summary of the results.

Hol: Job Satisfaction

Hol: There is no significant difference of job satisfaction between nursing assistants trained in vocational programs and those trained on the job.

Computation of an index score on the Job Satisfaction Questionnaire for each participant was calculated, based on the Likert scale of "1" for agree to "5" for disagree. Responses for the questions worded in a negative form were reversed prior to the computation of the score so that in all cases the numerical value to the response would represent the strength of the disagreement.

The index score obtained for each participant's questionnaire on his/her job satisfaction ranged from 18 which indicated a positive score to a score of 90 indicating a negative response. Scores were grouped and interval lines were drawn. A score of 45 and above was rated as a negative score. A score of 36-44 was rated as undecided. A score of 35 and below was rated as positive.

An analysis of variance was used to determine any significant differences between the two groups of nursing assistants and between each item on the job satisfaction questionnaire. To reject the hypothesis, the F ratio had to be equal to or greater than 3.92 at the .05 level.

Analysis of data using the analysis of variance provided an F of 1.542 with 1, 119 degrees of freedom. The hypothesis was accepted. There was no significant difference of job satisfaction between nursing assistants that were vocationally trained and those trained on the job.

The analysis of variance was applied to each question in the Job Satisfaction Questionnaire. There was no significant difference between responses of the nursing assistants to the questionnaire on job satisfaction.

The percentages of responses to job satisfaction in the following categories: positive, undecided and negative is presented in Table I. Overall, 46 percent of the nursing assistants were in the undecided category of how they felt about their job.

TABLE I

RANGE OF SCORES ON JOB SATISFACTION FROM POSITIVE TO NEGATIVE
OF NURSING ASSISTANTS TRAINED IN VOCATIONAL PROGRAMS
AND THOSE TRAINED ON THE JOB

Job Satisfaction Category	Score Range	Vocational		On-the-Job	
		N	Percent	N	Percent
Positive	18-35	20	38	27	39
Undecided	36-44	22	42	34	50
Negative	45-Above	11	20	7	10

However, 39 percent of the nursing assistants trained on the job and 38 percent of the vocationally trained assistants were job satisfied. Ten percent of the nursing assistants trained on the job were dissatisfied while 20 percent of the vocationally trained assistants were dissatisfied.

Ho2: Satisfaction with Supervision

Ho2: There is no significant difference of Satisfaction with Supervision between nursing assistants trained in vocational programs and those trained on the job.

Computation of an index score on the Satisfaction with Supervision Questionnaire for each participant was calculated based on the Likert scale of "1" for agree to "5" for disagree.

The index score obtained for each participant on his/her satisfaction with supervision ranged from 14, indicating a positive attitude, to a score of 70, indicating a negative attitude. Scores were grouped and interval lines were drawn. A score of 32 and above was rated as a negative attitude. A score of 26-31 was rated as undecided. A score of 14-25 was rated as being positive.

Analysis of variance was used to determine any significant differences between the two groups of nursing assistants and between each item on the Satisfaction with Supervision Questionnaire. To reject the hypothesis, the F ratio had to be equal to or greater than 3.92 at the .05 level.

Analysis of data, using the analysis of variance provided an F of 3.11 with 1,119 degrees of freedom. The hypothesis was accepted. There was no significant differences of satisfaction with supervision between nursing assistants that were vocationally trained and those trained on the job.

The percentages of nursing assistants in the agree, undecided and disagree regarding their satisfaction with supervision are presented in Table II. The analysis of variance was computed for each question. The following four questions revealed significant differences:

5. You have proper opportunity to present a problem, complaint or suggestion to your supervisor.

8. Your supervisor is interested in getting your ideas and suggestions.

9. Your supervisor gives you recognition for work well done.

11. Your supervisor is concerned about your safety on the job.

Table II provides the percentages and F ratio of responses to the questionnaire on Satisfaction with Supervision. Nursing assistants trained on the job had a higher percentage of agreement on questions 5, 8 and 11. Vocationally trained assistants had a higher percentage that agreed on question 9. There are no other significant differences between the responses to the other questions on Satisfaction with Supervision.

The percentages of responses to Satisfaction with Supervision by categories; positive, undecided and negative is presented in Table

TABLE II
 PERCENTAGE AND F VALUES OF RESPONSES TO QUESTIONS ON SATISFACTION WITH SUPERVISION
 FROM NURSING ASSISTANTS TRAINED BY VOCATIONAL PROGRAMS
 AND THOSE TRAINED ON THE JOB

Question	Percent Vocationally Trained		Percent On-the-Job Trained		F Ratio
	Agree	Undecided	Agree	Undecided	
1. Your supervisor takes an interest in you as a person as well as in how well you do your job	80	10	96	2	0.007
2. Your supervisor gives you straight answers when you ask him/her something	74	13	93	6	2.634
3. Generally speaking, your supervisor criticizes you in front of others	88	6	94	0	0.002
4. Your supervisor follows through on his/her promises	75	17	90	4	1.068
5. You have proper opportunity to present a problem, complaint or suggestion to your supervisor	81	15	99	1	4.943*
6. You are criticized by your supervisor for happenings over which you have no control	80	9	96	0	1.925
7. Your supervisor is prompt in taking care of your complaints	74	17	83	7	0.921
8. Your supervisor is interested in getting your ideas and suggestions	73	21	90	9	4.294*
9. Your supervisor gives you recognition for work well done	76	11	94	3	7.512*
10. Your supervisor is usually courteous to you	91	8	98	1	0.893
11. Your supervisor is concerned about your safety on the job	83	9	99	1	6.118*
12. When you are given a task, you feel you are reasonably well trained for the task	94	6	93	4	0.132
13. Your supervisor tries to see you have the things you need to do your job	94	2	94	6	0.296
14. Generally speaking, your supervisor is a good supervisor	83	15	96	3	1.313

F = 3.92.

* = Significant.

III. Overall, 47 percent of the nursing assistants were in the undecided category of how they felt about their supervision.

TABLE III

RANGE OF SCORES ON SATISFACTION WITH SUPERVISION FROM
POSITIVE TO NEGATIVE OF NURSING ASSISTANTS TRAINED
IN VOCATIONAL PROGRAMS AND THOSE
TRAINED ON THE JOB

Attitude Toward Supervision	Score Range	Vocational		On-the-Job	
		N	Percent	N	Percent
Positive	14-25	19	36	33	49
Undecided	26-31	24	45	33	49
Negative	32-Above	10	19	2	2

However, 49 percent of the nursing assistants trained on the job and 36 percent of the nursing assistants vocationally trained were generally satisfied with supervision. Two percent of the nursing assistants trained on the job were dissatisfied while 19 percent of the vocationally trained assistants were dissatisfied with supervision.

Ho3: Job Performance

Ho3: There is no significant difference of scores on the job performance ratings between nursing assistants trained in vocational programs and those trained on the job.

Computation of an index score on the job performance rating form was obtained for each participant. The scale was based on a

Likert scale of "1" for below average performance to "5" for above average performance. Scores were grouped and interval lines were drawn. A job performance rating of 69 and below was rated below average. A score of 70-79 was rated as average. A score of 80 or above was rated as above average.

Analysis of variance was used to determine any significant differences between the two groups of nursing assistants and between each item on the job performance rating form. To reject the hypothesis, the F ratio had to be equal to or greater than 3.92 at the .05 level.

Analysis of data using the analysis of variance provided an F of 0.636 with 1,119 degrees of freedom. The hypothesis was accepted. There was no significant difference in job performance between nursing assistants that were vocationally trained and those trained on the job.

The percentages and F ratio of each nursing assistant in the below average, average and above average categories regarding their job performance are presented in Table IV. The analysis of variance was computed for each item. Two items revealed significant differences:

12. Dresses clean and appropriate.

14. Recognizes emergencies.

The percentages indicate the supervisors rated vocationally trained nursing assistants higher on these two items. There were no other significant differences on the other ratings in the job performance questionnaire.

TABLE IV

PERCENTAGE AND F RATIO OF THE RESPONSES TO THE JOB PERFORMANCE EVALUATION INSTRUMENT BY NURSING ASSISTANTS TRAINED BY VOCATIONAL PROGRAMS AND THOSE TRAINED ON THE JOB

Performance	Vocationally Trained		On-the-Job Trained		F Ratio
	Below Average	Above Average	Below Average	Above Average	
1. Uses aseptic techniques when appropriate	6	26	4	55	2.609
2. Gives good physical care	4	24	4	33	0.284
3. Does little things to make the patient comfortable	4	30	4	32	0.054
4. Consistently completes work on time	7	21	4	42	0.075
5. Reports to work on time	13	38	1	49	0.348
6. Voluntarily helps others complete their assignments	2	34	0	44	0.028
7. Keeps patients free of risks	4	26	0	53	1.641
8. Observes and reports any changes in patients	6	28	1	46	0.034
9. Records I&O's accurately	4	25	1	55	2.253
10. Performs well when reassigned	2	47	6	50	1.148
11. Respects patients rights	5	25	3	40	0.387
12. Wears a clean and appropriate uniform	4	28	3	50	4.079*
13. Attends inservice classes when possible	8	61	0	64	1.082
14. Recognizes important emergency situations	6	19	1	52	4.185*
15. Attends to safety precautions	6	23	1	54	3.478
16. Reports hazardous equipment	6	26	0	52	1.754
17. Maintains calm even disposition	11	36	9	40	0.377
18. Is open to constructive criticism	8	38	9	43	0.028
19. Enjoys patient care	2	29	0	38	0.788
20. Tries to improve own work performance	3	36	1	40	0.855

F = 3.92.

* = Significant.

The percentages of performance rating for both groups of nursing assistants were grouped in the following categories; below average, average and above average as presented in Table V. Overall, 34 percent of the nursing assistants were in the average categories on job performance.

TABLE V

RANGE OF SCORES ON JOB PERFORMANCE FROM BELOW AVERAGE TO ABOVE AVERAGE OF NURSING ASSISTANTS TRAINED IN VOCATIONAL PROGRAMS AND THOSE TRAINED ON THE JOB

Performance Ratings	Score Range	Vocational		On-the-Job	
		N	Percent	N	Percent
Below Average	69-below	17	32	33	48
Average	70-79	22	42	19	28
Above Average	80-above	14	26	16	24

However, 48 percent of the nursing assistants trained on the job and 32 percent of the vocationally trained assistants were rated below average in the job performance ratings, while 26 percent of the vocationally trained assistants and 24 percent of the on-the-job trained assistants were rated above average in job performance.

Ho4: Absenteeism

Ho4: There is no significant difference in the yearly rate of absenteeism between nursing assistants trained in vocational programs and those trained on the job.

Application of analysis of variance was used to analyze the significant differences between the two groups of nursing assistants and their rate of absenteeism. To reject the hypothesis, the F ratio had to be equal to or greater than 3.92 at the .05 level.

A frequency table was developed to show the number of absenteeism days for both groups of nursing assistants.

Analysis of data, using the analysis of variance provided an F ratio of 11.648 at the .001 level which is presented in Table VI. The null hypothesis was rejected. There is a significant difference in the rate of absenteeism between nursing assistants that were vocationally trained and those trained on the job.

TABLE VI

ANALYSIS OF VARIANCE OF ABSENTEEISM RATE OF NURSING ASSISTANTS
TRAINED IN VOCATIONAL PROGRAMS AND THOSE TRAINED ON THE JOB

Source	d.f.		ms	F Ratio	F Table
Between Groups	1	842.7896	842.7896	11.648	3.92
Within Groups	119	8610.1631	72.3543		
Total	120	9452.9492			

Significant.

The data depicted by Table VII lists the absenteeism days for each group. Nursing assistants trained by vocational programs had 65 percent (34) nursing assistants absent. This totaled 484 days for one year of employment and represents a mean of 8.8 days of unexcused absences for the total group. Of the nursing assistants trained on the job, 62 percent (42) had been absent 278 days during the past year of employment. This represents a mean of 4.1 days of unexcused absences for the total group, thus indicating nursing assistants trained by vocational programs had a higher rate of absenteeism.

Ho5: Disciplinary Problems

Ho5: There is no significant relationship between the number of recorded yearly disciplinary problems and the types of training.

In order to test the hypothesis the chi square was used to determine whether or not there was a relationship between the two groups of nursing assistants and their rate of recorded disciplinary problems. To reject the hypothesis, the chi square critical value had to be 5.991, with 2 degrees of freedom at the .05 level.

Bar graphs were developed to illustrate the percentages of disciplinary problems for both groups of nursing assistants.

The chi square was 1.38 which was not significant at the .05 level. The null hypothesis was accepted. There was not a significant relationship in the disciplinary problem rate between nursing

TABLE VII

FREQUENCY OF ABSENTEEISM DAYS OF NURSING ASSISTANTS
 TRAINED IN VOCATIONAL PROGRAMS AND THOSE TRAINED
 ON THE JOB

Absenteeism Days	Vocationally Trained		On-the-Job Trained	
	N	Total No.	N	Total No.
0	19	0	26	0
1	3	3	5	5
2	1	2	9	18
3	2	6	7	21
4	4	16	10	40
10	0	0	2	20
11	1	11	1	11
12	8	96	2	24
13	1	13	1	13
14	1	14	0	0
16	2	32	1	16
20	4	80	0	0
21	1	21	0	0
23	0	0	2	46
24	1	24	0	0
28	1	28	0	0
32	2	65	2	64
36	1	36	0	0
37	1	37	0	0
Totals	53	484	68	278

assistants trained in vocational programs and those trained on the job.

The times nursing assistants were disciplined is presented in Figure 1.

Fifteen nursing assistants from each group had disciplinary problems. The data of the number of times disciplined indicates that 15 percent of the vocationally trained assistants had been disciplined once while only 9 percent of those trained on the job had been disciplined one time. Eight percent of the vocationally trained assistants had been disciplined twice while 9 percent of those trained on the job had been disciplined twice. Four percent of both groups of nursing assistants had been disciplined three times and 2 percent of the vocationally trained assistants had been disciplined four times.

Ho6: Safety While Employed

Ho6: There is no significant relationship between the yearly safety record and the type of training.

In order to test this hypothesis the chi square was used to determine whether or not there was a relationship between the two groups of nursing assistants and their safety record while employed. To reject the chi square the critical value had to be 5.991 with 2 degrees of freedom at the .05 level.

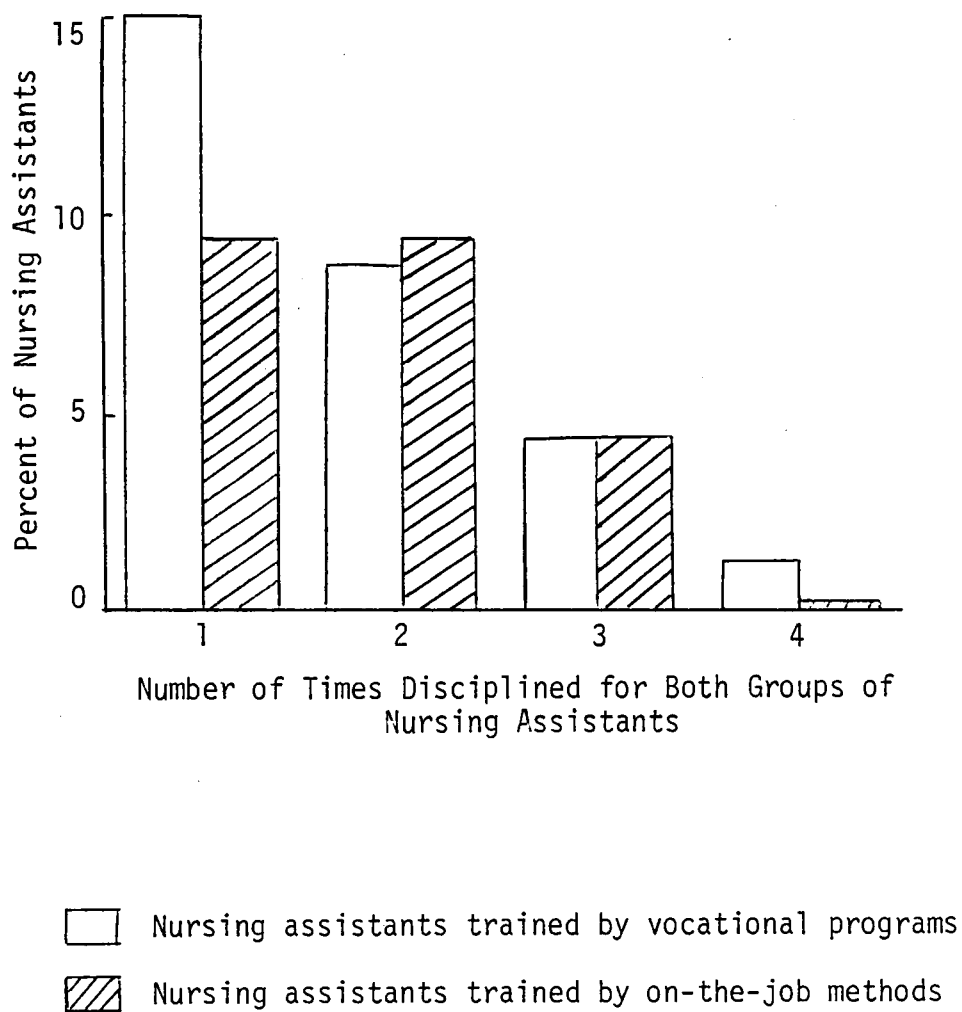


Figure 1. Number of times disciplined for both groups of nursing assistants.

The chi square was 8.12 which was significant at the .025 level. The null hypothesis was rejected. There was a significant relationship in the safety rate of nursing assistants and the type of training they received. Nursing assistants trained on the job had a significantly better safety record than those trained in vocational programs.

The accidents experienced by nursing assistants trained by vocational programs ranged from zero to 20. The nursing assistants trained by on-the-job methods experienced from zero to seven accidents. Other findings from the data:

The bar graph, Figure 2, shows the type and number of accidents the nursing assistants had during the past year of employment.

Sixteen of the nursing assistants trained by vocational programs had a total of 95 accidents on the job for one year. The major categories of injuries were scratches, bruises, bites, bumps and sprains. This was followed by abrasions, cuts, fractures, a ripped off finger nail and an injured breast. There were only two nursing assistants who lost work due to injury. Only one nursing assistant received workman's compensation.

Seventeen nursing assistants trained on the job had a total of 34 accidents while employed for one year. The major categories of injuries were scratches, bruises, bites, bumps and sprains. No other types of injuries were listed in this group. From the injuries received, two lost time from work and two received workman's compensation.

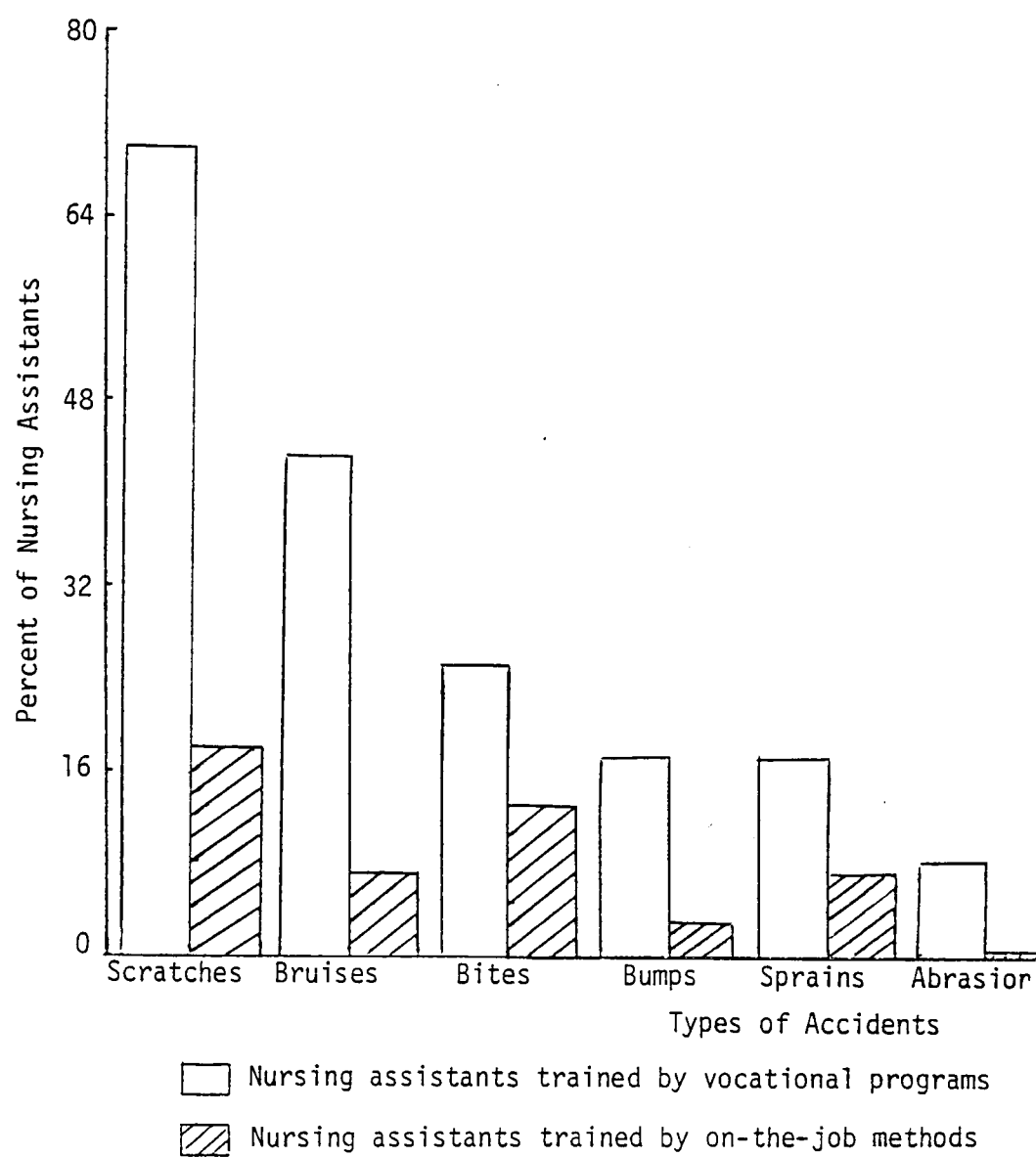


Figure 2. Types of accidents.

CHAPTER V

SUMMARY, FINDINGS AND CONCLUSIONS

Summary of the Procedures

The purpose of this study was to assess the effectiveness of vocational education as opposed to on-the-job training of nursing assistants working in long term health care centers. To achieve this purpose, two questionnaires on job satisfaction and satisfaction with supervision were administered to the nursing assistants to identify satisfaction with the job and supervision. Also a job performance rating form was filled out on each participant by his/her supervisor to determine the type of job performance of these two groups of nursing assistants. Information on the two groups of nursing assistants' rate of absenteeism, frequency of times disciplined and frequency of accidents for the past year of employment were also used to determine the presence of any significant differences.

To gather data, four long term health care centers in the East Tennessee area were chosen by the cluster sampling procedure. From these four centers 121 nursing assistants volunteered to participate in this study; 53 were graduates of vocational programs and 68 were trained on the job.

Data received from the 121 participants were hand scored, listed on fortran sheets and punched onto IBM cards for statistical processing. To accomplish the purpose of the study, six null

hypotheses were tested. The 52 separate items on the questionnaires and the performance rating forms were also compared between the two groups of nursing assistants. An analysis of variance was computed to test for significant difference at the .05 level. The analysis of variance utilizing the Statistical Package for the Social Sciences (SPSS) was used in treatment of job satisfaction, satisfaction with supervision, job performance and absenteeism. The analysis of variance utilizing the SPSS system had the added feature that it can cope with unequal cell sizes (53 vocationally trained and 68 trained on the job). Percentage distributions were computed to determine the category differences between the nursing assistants trained by vocational programs and nursing assistants trained on the job for job satisfaction, satisfaction with supervision and job performance. Chi square was used to determine if there was a relationship between both groups of nursing assistants and their frequency of disciplinary action and frequency of accidents while employed.

The independent variable controlled in the study was the type of nursing assistant training. Data were obtained on the following dependent variables: (1) job satisfaction, (2) satisfaction with supervision, (3) job performance ratings, (4) absenteeism rate, (5) disciplinary problem rate and (6) safety record while employed.

Summary of the Findings

The findings of this study are reported in separate sections which coincide with the major hypotheses in Chapter IV.

Overall Hypothesis I. There was no significant difference of job satisfaction between nursing assistants trained in vocational programs and those trained on the job. There were no significant differences between responses to individual items within the questionnaire on job satisfaction between both groups of nursing assistants.

Overall Hypothesis II. There was no significant difference of satisfaction with supervision between nursing assistants trained in vocational programs and those trained on the job. Four questions in the questionnaire were significant: on the job trained nursing assistants had higher percentages that agreed that they had opportunities to present problems and felt that their supervisor was interested in their ideas and was concerned about their safety on the job. Vocationally trained assistants had a higher percentage of the participants who felt that they received recognition for work well done.

Overall Hypothesis III. There was no significant difference of scores on the job performance ratings between nursing assistants trained in vocational programs and those trained on the job. Two items in the questionnaire were significant and revealed that supervisors rated vocationally trained nursing assistants higher on their

ability to recognize emergencies and to dress cleanly and appropriately.

Overall Hypothesis IV. There was a significant difference in the yearly rate of absenteeism between nursing assistants trained in vocational programs and those trained on the job. The frequency of absenteeism days indicated that the 53 nursing assistants that were vocationally trained were absent 206 days more during the previous year than 68 on-the-job trained nursing assistants.

Overall Hypothesis V. There was no significant difference of the number of recorded disciplinary problems between nursing assistants trained in vocational programs and those trained on the job. Twenty-eight percent of the 53 nursing assistants vocationally trained and 22 percent of the 68 assistants trained on the job had received disciplinary action.

Overall Hypothesis VI. There was a significant difference of the yearly safety record between nursing assistants trained in vocational programs and those trained on the job. The data indicated that among the 53 nursing assistants that were vocationally trained there were 95 accidents recorded by 16 nursing assistants. In comparison there were only 34 recorded accidents by 17 nursing assistants among those who were trained on the job.

Vocationally trained nursing assistants rated higher in two of the job performance ratings, indicating that vocational education had some influence on job performance of the groups studied. While vocational education had some positive effect on job skills,

vocational education did not have a positive effect on the absenteeism rate, discipline rate or safety for the vocationally trained nursing assistants involved in this study.

Vocational education did not have a significant bearing on the job satisfaction and satisfaction with supervision. Both groups of nursing assistants had the same percentage of participants that were job satisfied. The analysis of data on satisfaction with supervision revealed a favorable response to supervision from both groups of nursing assistants.

Conclusions

The following conclusions were drawn as a result of this study.

1. Nursing assistants trained by vocational programs and those trained on the job after one year of employment were both satisfied with their jobs.
2. Both groups of nursing assistants were satisfied with their immediate supervisor.
3. Both groups of nursing assistants performed their jobs satisfactorily.
4. Nursing assistants trained by on-the-job methods were absent less than half the days of nursing assistants trained by vocational programs.
5. Nursing assistants trained by on-the-job methods were disciplined less than nursing assistants trained by vocational programs.

6. Nursing assistants trained on the job had less injuries while employed than nursing assistants trained by vocational programs.

Recommendations

The findings of this study and resulting conclusions form the basis of the following recommendations.

It is recommended that:

1. Vocational school programs provide realistic skill training that is congruent with the work world.

2. Vocational teachers be advocates of the importance of good work-place attendance.

3. That instruments be developed to assess the attitude of the prospective student as an admission/counseling tool that would aid in diminishing the probability of disciplinary problems in the work environment.

4. Vocational teachers examine their safety curriculum to determine if the methods and material taught is adequate in helping the student to understand the attitudes and techniques necessary to maintain a safe working environment.

5. School administrators require health occupations teachers to periodically return to the work force to gain insights into problem areas.

6. School administrators examine the value to the school system of maintaining the vocational-technical health occupations programs.

7. Appropriate inservices regarding the needs of the elderly be provided for instructors preparing nursing assistants for work in long term health care institutions.

The following recommendations for future studies are made based on the findings of this study:

1. A more extensive and comprehensive study should be conducted to determine who, when and what influences job satisfaction.

2. Studies should be done to determine if the information and techniques being taught in the classroom are adequate in developing attitudes necessary to create an accident-free environment.

3. Studies should be done to determine how to develop the responsibility of being at work when scheduled.

4. Follow-up information should be compiled from the students' employer to try to determine the employers satisfaction with the attitudes and performance of the vocational nursing assistant.

5. It is recommended that a duplicate study be done when students graduate from a vocational program and at various intervals during the first year of work.

6. Follow-up information should be compiled from graduates of health occupations programs to determine if the course work was adequate in preparing them for work in a health care setting.

7. If the study is replicated, it should be kept in mind that the type of institution of employment the nursing assistant was trained to function in could influence the results.

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APPENDIXES

APPENDIX A

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January 25, 1982

National Health Corporation has agreed to allow Joan Boling, RN MS, a Doctoral student in the Department of Vocational Technical education at The University of Tennessee at Knoxville, to do research to determine if there is a significant difference between vocationally educated nursing assistants and nursing assistants who receive on the job training. She will be looking at work attitudes, job performance, absentee rate, job safety, and disciplinary problems.

A questionnaire will be given to 30% of the nursing assistants in each of our selected NHC facilities. The participants supervisor will also be asked to fill out a performance questionnaire and the rest of the criteria will be gathered from various in-house records. The result of the study will be reported by the methods of training. The confidentiality of our facilities participating in the program and the employees will be protected.

Mrs. Boling will be in contact with the Director of Nursing of each facility within the next few weeks. She will set up a time to visit with each facility at our convenience. If the study is significant, it will be sent to Mr. Gene Bottom, American Vocational Association, who lobbies for education in Washington, D. C. to be used to show how properly funded education can make a difference. National Health Corporation, of course, will also receive copies of information.

Thanks for your cooperation in this project. If you have any questions, don't hesitate to contact me.

Sincerely,

David G. Coggin, Regional Administrator
National Health Corporation

Joan Boling, Primary Researcher

Dr. Don Brown, Committee Chairman
Department Vocational Technical Education
The University of Tennessee

APPENDIX B

Name _____

Date _____

AN INDEX OF JOB SATISFACTION

Some jobs are more interesting and satisfying than others. We want to know how people feel about different jobs. This blank contains eighteen statements about jobs. You are to underline the phrase below each statement which best describes how you feel about your present job. There are no right or wrong answers. We want your honest opinion on each one of the statements. Work out the sample item numbered (0). This questionnaire has no effect on your future at FSRMC.

0. There are some conditions concerning my job that could be improved.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
1. My job is like a hobby to me.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
2. My job is usually interesting enough to keep me from getting bored.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
3. It seems that my friends are more interested in their jobs.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
4. I consider my job rather unpleasant.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
5. I enjoy my work more than my leisure time.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
6. I am often bored with my job.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
7. I feel fairly well satisfied with my present job.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
8. Most of the time I have to force myself to go to work.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
9. I am satisfied with my job for the time being.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
10. I feel that my job is no more interesting than others I could get.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE

11. I definitely dislike my work.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
12. I feel that I am happier in my work than most other people.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
13. Most days I am enthusiastic about my work.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
14. Each day of work seems like it will never end.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
15. I like my job better than the average worker does.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
16. My job is pretty uninteresting.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
17. I find real enjoyment in my work.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
18. I am disappointed that I ever took this job.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE

APPENDIX C

SATISFACTION WITH SUPERVISION

This questionnaire contains fourteen items. There are no right or wrong answers. Please underline the phrase below each statement which best describes how you feel.

1. Your supervisor takes an interest in you as a person as well as in how well you do your job.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
2. Your supervisor gives you straight answers when you ask him/her something.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
3. Generally speaking, your supervisor criticizes you in front of others.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
4. Your supervisor follows through on his/her promises.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
5. You have proper opportunity to present a problem, complaint or suggestion to your supervisor.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
6. You are criticized by your supervisor for happenings over which you have no control.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
7. Your supervisor is prompt in taking care of complaints.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
8. Your supervisor is interested in getting your ideas and suggestions.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
9. Your supervisor gives you recognition for work well done.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
10. Your supervisor is usually courteous to you.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
11. Your supervisor is concerned about your safety on the job.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
12. When you are given a task you feel that you are reasonably well trained for the task.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE

13. Your supervisor tries to see that you have the things you need to do your job.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE
14. Generally speaking, your supervisor is a good supervisor.
STRONGLY AGREE AGREE UNDECIDED DISAGREE STRONGLY DISAGREE

APPENDIX D

JOB PERFORMANCE EVALUATION FORM

Name _____

Instructions for the supervisor: Key for Numerical Score:
 1=poor, 2=below average;
 3=average, 4=above average,
 5=superior.

Please rate the employee on the following	Score				
	1	2	3	4	5
1. Uses aseptic technique when appropriate					
2. Gives good physical care					
3. Does "little things" to make the patient more comfortable					
4. Consistently completes work on time					
5. Reports to work on time					
6. Voluntarily helps others complete their assignments					
7. Keeps patients free of risks					
8. Observes and reports any changes in patients					
9. Records I&O's accurately					
10. Performs well when reassigned					
11. Respects patient's rights					
12. Wears a clean and appropriate uniform					
13. Attends inservice classes when possible					
14. Recognizes important emergency situations					
15. Attends to safety precautions					
16. Reports hazardous equipment					
17. Maintains calm even disposition					
18. Is open to constructive criticism					
19. Enjoys patient care					
20. Tries to improve own work performance					

APPENDIX E

Data Gathering Instrument

Participant_____

Health Care Center_____

Trained on the job_____

or
Trained in vocational class_____

Total points on the job evaluation scale_____

Total points on the attitude toward supervision scale_____

Total points on the attitude toward the job scale_____

Absenteeism, total days absent for reasons other than
vacation, bereavement, hospitalization and jury duty_____

Other comments_____

Documented disciplinary problems_____

APPENDIX F

SAFETY RECORD

Participant _____

Health Care Center _____

Accident or injury on the job for the past year No ___ Yes ___

If the answer is yes complete the following:

Injury How Many

Abrasion _____

Amputation _____

Asphyxiation _____

Bite _____

Bruise _____

Bump _____

Burn _____

Concussion _____

Cut--laceration _____

Dislocation _____

Fracture _____

Puncture _____

Scalding _____

Scratches _____

Shock (electric) _____

Splinter _____

Sprain _____

Other _____

Please Check

Degree of Injury	Yes	No
Non-disabling	☐	☐
Temporary out of work	☐	☐
Out of work over 1 month	☐	☐
Received workman's compensation	☐	☐

APPENDIX G

THE UNIVERSITY OF TENNESSEE, KNOXVILLE
DEPARTMENT OF VOCATIONAL-TECHNICAL EDUCATION

CONSENT FORM

You are invited to participate in a study that will examine two methods of training nursing assistants. Subjects will be nursing assistants trained on-the-job, and nursing assistants trained in vocational classes. I will be looking at the work attitudes and performance to see if vocational education serves as a motivating force in the process of learning. A related purpose is to contribute to vocational education research.

People involved in the data collection will be from health care centers in Knoxville, Oak Ridge, and Johnson City, Tennessee.

The names of the participants will not be identified in the study. The participating health care centers will receive a copy of the results.

If you decide to participate you are free to withdraw your consent and to discontinue participation at any time. I invite your participation and if you do so I will appreciate it.

The signing of the consent form certifies that each person is participating of her/his own free will in the study and may withdraw consent at any time.

The researcher assures confidentiality of all information, and that the data will be reported only as part of the group and in a descriptive manner.

Signature of participant _____

Joan J. Boling, Researcher and Graduate Student
10917 Yarnell Road
Knoxville, TN 37922
Phone: 690-2432

VITA

Joan Jessiman Boling was born in Pawtucket, Rhode Island. She received her elementary and junior high education in Pawtucket schools. She graduated from Powell High School in Powell, Tennessee. She received her Bachelor of Science and Master of Science degrees from The University of Tennessee, Knoxville. Her RN was received from Knoxville General Hospital School of Nursing, Knoxville, Tennessee.

Working experience has included several management positions in health care facilities in the East Tennessee area. These positions include providing orientation, continuing education programs and conducting research. She has also taught Health Occupations Education for Knox County Schools, Knoxville, Tennessee.

Joan is a member of Omicron Tau Theta and Pi Lambda Theta Honorary Educational Societies. She also belongs to the National League of Nurses and The American Vocational Association. She is a charter member of the American Nurses' Foundation Century Club dedicated to the advancement of nursing through research.

Joan is married to Maxon Evans Boling, formerly of Nashville and Oak Ridge, Tennessee. They have four children, Stanley, Stuart, Beth and Bridget.