THE RELATIONSHIP BETWEEN DEGREES OF BURNOUT AND EDUCATIONAL TRACKS AMONG REGISTERED NURSES IN TEXAS

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THE RELATIONSHIP BETWEEN DEGREES OF BURNOUT AND EDUCATIONAL TRACKS AMONG REGISTERED NURSES IN TEXAS

DISSERTATION

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The problem of this investigation was threefold: ascertaining differences in degrees of burnout as a function of registered nurses' educational tracks in Texas, ascertaining degrees of burnout for registered nurses as a function of job tenure, and examining certain demographic variables and their relationships with registered nurses' educational tracks. Nurses were classified by educational track (diploma, associate degree, baccalaureate degree) and employment (full time, part time, not active). The instrument employed comprised the Pines and Aronson Tedium-Burnout Diagnosis, for which reliability and validity were previously established, and a demographic questionnaire.

Fifteen research hypotheses were formulated. Statistical methods utilized were one- and two-way analysis of variance and the chi-square technique. The independent variables were nurses' educational tracks, years since graduation, and years of active involvement in nursing practice; the dependent variable was their burnout scores.

A systematic random sample of 500 licensed registered nurses was drawn from the *Roster of Registered Professional*
Nurses in Texas. The usable return rate was 58 per cent. No effort was made to ascertain the respondents' gender.

Findings of the study included the following. Burnout among registered nurses employed full-time did not differ significantly as a function of educational track, but a highly significant difference in burnout was revealed among registered nurses employed part-time as a function of educational track. No significant difference in burnout was noted among respondents as a function of years since graduation or years of active involvement in nursing. A highly significant relationship was observed between the income of nurses' parents during training and educational track.

The study concluded that, although causes of burnout are varied, the phenomenon appears not to be related to the educational tracks followed by registered nurses in Texas, and income and mobility are functions of performance or specific locations of employment rather than educational background. Finally, burnout is only one of several variables contributing to attrition among nurses.
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CHAPTER I

INTRODUCTION

There are many situations in which people work intensely and intimately with others. They learn about the psychological, social, and physical problems of individuals, and they are often called upon to provide personal help of some kind. Such intense involvement with people occurs on a large-scale, continuous basis for persons employed in various health and social service professions. Hour after hour, day after day, these professionals must care about many other people, and this constant or repeated emotional arousal is a very stressful experience for any human being that can often be disruptive or incapacitating.

One of the main reasons that very little attention has been given to the emotional stresses experienced by the health and social service professional is the traditional client-centered orientation shared by these fields. The focus is almost exclusively on the client, the patient, or the person who, in some other way, receives services. Within this framework, the professional is viewed as merely the provider of services, whose role and existence are defined by the presence of the clients and are justified only as long as he or she continues to serve, help, and provide.
In order to perform their work efficiently and well, health and social service professionals may defend themselves against their strong emotions through techniques of detachment. Ideally, they try to gain sufficient objectivity and distance from the situations in which they are involved without losing their concern for the persons with whom they are working. In all too many cases, however, these professionals are unable to cope with continual emotional stress, and "burnout"--a total emotional and physical exhaustion--eventually occurs.

Regardless of the actual causes of burnout, its effects are dramatically clear in terms of the social, personal, and financial costs of health care delivery. To the extent that people feel compelled to escape from their jobs or even leave their professions entirely, burnout represents a tremendous waste of training and talent for both professionals experiencing tedium and agencies that provide the training. More importantly, burnout has detrimental psychological effects for professionals and their clients.

Another source of stress stems from the special characteristics of health and social service professionals themselves. Generally, those who choose a career of helping people are individuals who are particularly sensitive toward others. If emotional arousal is a taxing experience for any human being, it is particularly disruptive to people
who choose such work because they tend to have especially
great empathy for the suffering of others.

The majority of the literature written on burnout
consists of various professionals' theories of the criti-
cal aspects or concepts of the condition. Although all
writers agree that burnout is in some way disruptive to an
individual's ability to lead a productive and fulfilling
life, consensus is lacking on the major fundamental aspects
of the phenomenon. Various authorities' interpretations of
the facets of burnout--its etiology, its symptoms, individ-
uals most susceptible to the condition, prevention and
treatment approaches, and even the definition of burnout
itself--remain divergent.

Occupational identity can be enhanced by the homogen-
ity of people selecting an occupation. The nature of the
occupational task acts as a screening device, attracting
people with particular kinds of personality attributes.
One such profession where patient contact seems to be a
common thread among its members is that of the registered
nurse. The nursing profession also has an extremely high
attrition rate of trained individuals who feel compelled
to leave the field; in fact, many leave before the end of
two years of actual work experience. Pines and Maslach
attribute a very high percentage of this attrition to
burnout (5, p. 252).
Nursing literature, along with many publications in other areas affiliated with the helping professions, increasingly uses the term "burnout" as a descriptive characteristic of members of the profession. Yet, despite the problems implied for the nursing profession in this kind of difficult identification, only minimal empirical study of the phenomenon has been conducted. The majority of the investigations made to date have centered around the loss of human caring, particularly among psychiatric, oncology, and intensive care nurses.

The nursing literature is replete with descriptions of stressful aspects of patient care, most of which place the nurse at a high risk of burning out. Contrary to the findings of earlier research, burnout is not limited to situations in which patients are seriously ill and the workload is heavy (4, p. 18); Lavandero also believes that burnout occurs frequently when the workload consists primarily of repetitive tasks with many boring components (4, p. 21).

The educational training leading to licensure of a registered nurse is unique because it comprises three tracks through which the student, upon completion of a track, can take the licensure examination to qualify as a registered nurse. Contributing to the uniqueness of the various tracks leading to the degree of registered nurse is the fact that they represent different nurse education
philosophies. Nurse educators have credited the various tracks with particular merits, yet most results reported in the literature indicate little difference in the performance of their graduates.

The 1960s and 1970s witnessed extreme nursing shortages in this nation. A two-year study conducted by the National Academy of Science, released in early 1983, indicated that the crisis is now easing somewhat (7), but the attrition rate of registered nurses who leave the profession permanently remains extremely high and represents a financial drain in health care delivery. For the past three decades, the various educational tracks leading to the certification of registered nurses have provided investigators with a rich source of extensive studies. A limited amount of research has been conducted concerning rates of burnout from nursing, but not as a function of a particular educational track.

Statement of the Problem

The problem of this study was to analyze the degree of burnout among registered nurses in Texas as a function of various educational tracks and to determine whether relationships exist between degrees of burnout as reported by registered nurses and the educational tracks in which they were trained.
Purposes of the Study

The purposes of the study were as follows:

1. To determine whether differences exist among graduates of the three available nurse educational tracks with respect to burnout experienced by registered nurses;

2. To determine whether relationships exist between the graduates of the three educational tracks and other factors with respect to the occupational status or profile of registered nurses in Texas as determined by demographic data.

Research Hypotheses

To carry out the purposes of this study, the following hypotheses were tested.

1. Differences exist among graduates of the three educational tracks with respect to degrees of burnout in registered nurses in Texas employed full-time.

2. Differences exist among graduates of the three educational tracks with respect to degrees of burnout in registered nurses in Texas employed part-time.

3. Differences exist among the five groups with varying numbers of years since graduation with respect to degrees of burnout in registered nurses in Texas employed full-time.

4. Differences exist among the four groups with varying numbers of years since graduation with respect to
degrees of burnout in registered nurses in Texas employed part-time.

5. Differences exist among the four groups with varying numbers of years of active involvement in nursing practice with respect to degrees of burnout in registered nurses in Texas employed full-time.

6. Differences exist among the three groups with varying numbers of years of active involvement in nursing practice with respect to degrees of burnout in registered nurses in Texas employed part-time.

7. An interaction exists between the educational tracks of registered nurses and number of years since graduation from their basic nursing programs, based on degrees of burnout among registered nurses in Texas employed full-time.

8. An interaction exists between the educational tracks of registered nurses and number of years since graduation from their basic nursing programs, based on degrees of burnout among registered nurses in Texas employed part-time.

9. An interaction exists between the educational tracks of registered nurses and number of years of their active involvement in nursing practice, based on degrees of burnout among registered nurses in Texas employed full-time.
10. An interaction exists between the educational tracks of registered nurses and number of years of their active involvement in nursing practice, based on degrees of burnout among registered nurses in Texas employed part-time.

11. A relationship exists between graduates of the three educational tracks and their parents' income level during the period when the registered nurses were receiving their professional training.

12. A relationship exists between graduates of the three educational tracks and desire for additional in-service training among active registered nurses in Texas.

13. A relationship exists between graduates of the three educational tracks currently classified as non-active and desire for additional in-service training that would influence their reentry into active nursing.

14. A relationship exists between graduates of the three educational tracks and annual income of registered nurses in Texas.

15. A relationship exists between graduates of the three educational tracks and vertical mobility of registered nurses in Texas.

Background and Significance of the Study

Three types of educational programs are currently utilized to prepare individuals for the legal status of
registered nurse. These programs vary in their length and nature, the extent of the content taught, and the type of job opportunities open to their graduating students. The literature portrays the nursing profession as very fluid and characterized by an extremely high level of burnout. The present study was intended to ascertain the differences that existed among graduates of the three nurse educational tracks with respect to degrees of burnout measured by the selected instrument. The frequent periods of inactivity occurring among active registered nurses create a problem in the delivery of health care and represent increased cost to the employer, which is passed on to recipients of health-related services.

Hospitals seem to experience unusually high turnover among professional nurses, averaging from 35 to 60 per cent yearly (2, 3, 6, 8, 13). This circumstance is related in part to the fact that 97 per cent of registered nurses are female; therefore, family obligations could account for some of their mobility. Investigators call this "involuntary turnover," yet their research fails to establish that designation as a hard fact (11, p. 5). Voluntary turnover among nurses, according to Seybolt, Pavett, and Walker, averages between 65 and 75 per cent annually (11, p. 6). This type of turnover may present an insoluble problem, but more effective methods of dealing with it should be sought.
Nurses who leave the profession have provided researchers with a fertile area for investigation. The literature cites several reasons for high attrition rates, such as weakness in theory, personal or family problems, difficulty in adaptation to practice or environment, health problems, and general dissatisfaction. One item about which researchers seem to agree is that no single instrument or battery of instruments can predict nurses' success after they are employed, nor do grades on entrance examinations to nursing schools or psychological tests assist in the prediction of attrition (3, 6, 14).

Attrition from any profession is a multifactoral phenomenon, and isolating individual factors is often rather difficult. The literature reveals multiple methods of classifying reasons for attrition, including individual and institutional elements, complemented by personal variables related to the professional. In a sample of 129 social service workers, burnout was highly correlated with an intention to leave the job (9, p. 6). In a study involving 352 registered nurses, emotional exhaustion accompanied by physical depletion appeared to contribute heavily to departure from the profession (9, p. 6).

The significant but previously little studied phenomenon of burnout began to receive greater emphasis in the literature in the late 1970s. The increasing prevalence
of the term seemed to be accentuated by individuals' apparent intuitive understanding. This acceptance also seemed to contribute to numerous interpretations of burnout since the various users of the term were not likely to seek confirmation of the meanings that they ascribed to it. Currently, "burnout" can signify anything from a mild case of boredom to serious emotional disorder.

Burnout was first formally identified in 1974 by Freudenberger (4, p. 18). Although less than a decade has passed since that date, the phenomenon is probably as old as job stress and professional frustration. Regardless of the emphasis that authorities give to burnout with respect to influencing behavior, a growing body of literature, including a limited number of books, journal articles, dissertations, and other items, now addresses the issue. This incomplete comprehension of burnout is confounded by a larger society that is attempting unsuccessfully to deal with trends that are almost certain to intensify rather than alleviate stress.

Complicating the problem of understanding burnout is the societal situation of continuing—and sometimes escalating—health care needs versus declining resources to meet those needs. As resources diminish, professionals are left with decreasing options of proven coping strategies, which portends a significant and growing problem in
the management of human resources in the next decade. All of this is occurring during a period when society is demanding that health professionals hold advanced degrees for the application of modern medical technology.

Registered nurses, for example, are being pressured to obtain bachelor's degrees, particularly in Texas (13). Most practicing registered nurses do not hold bachelor's degrees, and many are returning to school to obtain them only because of external forces, not because they believe the degree to be worthwhile—they firmly believe that they already know as much or more about nursing with lesser academic qualifications than do holders of bachelor's degrees (7). These nurses maintain that they are being forced to give up valuable time at considerable expense to obtain degrees that do not enhance their professionalism.

Storlie defines burnout as

A syndrome resulting from an emotionally destructive relationship to work (or career) in which there is experienced a progressive loss of control, interference with non-work interests, and mixed symptoms indicating stress overload and depression that results in decreased productivity and eventually professional disinterest (12, p. 2109).

The phenomenon is a unique problem in nursing, not only because it questions the emotional well-being of members of the profession but also because it questions the traditional presentation of nursing as a caring and humanistic field of endeavor.
Because the term "burnout" has been increasingly used in descriptions of members of the nursing profession, this study sought to determine whether additional time spent in educational institutions contributes further coping skills during periods of nurses' peak emotional involvement with patients. Since some 65 to 75 per cent of individuals who leave nursing do so for voluntary reasons and a high correlation has been established between burnout and intention to leave one's job, it is of interest to ascertain the effect of the various educational tracks on this phenomenon (11, p. 9). Nurses who leave the profession for any period of time, no matter how short, represent a significant factor in health care costs because of the extremely high dollar figures required for the personnel, materials, and time expended to orient replacement nurses (10, p. 11).

Definition of Terms

For the purposes of this study, certain terms are defined as follows.

A diploma nursing program is a hospital-based program which provides theory and clinical experiences related to nursing care of patients in a general hospital setting.

An associate degree nursing program is a program usually established in a community college environment, although occasionally these programs are found in the lower
divisions of four-year institutions. The two-year curriculum provides a continuum of concurrent courses with a limited amount of liberal arts and general education and a major emphasis placed on nursing instruction.

A baccalaureate degree nursing program is a program offered by four-year institutions and is, at a minimum, a four-year program. The curriculum includes approximately 60 hours of general education plus instruction in the basic biological and physical sciences leading to concentrated nursing courses.

A registered nurse is a graduate of a state-approved school of nursing who has satisfactorily written the national licensure examination and is, therefore, legally declared safe and competent to practice nursing for compensation.

Burnout is a state of physical, emotional, and mental exhaustion resulting from constant or repeated emotional pressure associated with an intense involvement with people during long periods of time. This cluster of exhaustion reactions in their extreme form causes the individual to lose the ability to cope with and enjoy the work environment.

Limitations of the Study

The 1982 Roster of Registered Professional Nurses for the State of Texas (1) lists registered nurses currently licensed in the state irrespective of how they received their professional training. Therefore, the ratio of respondents
per educational track may or may not be representative of the population at large.

**Procedures for Collection and Analysis of Data**

The population for this study was all of the registered nurses currently licensed in Texas. A systematic sampling was drawn from the *Roster of Registered Professional Nurses* (1) mentioned above. The survey instrument and a demographic questionnaire were mailed, accompanied by a covering letter and a stamped, return-addressed envelope, to a sample of 500 registered nurses.

At the conclusion of the data collecting process, the data were analyzed by computer, using the Statistical Package for the Social Sciences. For research Hypotheses 1 through 6, a one-way analysis of variance was used, in which the various educational tracks headed each of the three columns. For research Hypotheses 7 through 10, a two-way analysis of variance was used, with the three educational tracks presented as rows and number of years of experience, number of years since graduation from the basic nursing program, and number of years of active involvement in nursing practice represented in the columns. For research Hypotheses 11 through 15, a chi-square test of independence was utilized to determine relationships. This test is intended for use with nominal data, which are presented in bivariate frequency tables.
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CHAPTER II

RELATED LITERATURE

In recent years, the number and range of services offered by the helping professions have greatly increased. More and more opportunities exist for persons to seek and obtain help, protection, cure, education, or special treatment of some kind for the problems they face. The professionals they turn to are often highly skilled in such areas as law, medicine, social welfare, and counseling. Those who seek the help of these professionals expect them to be personally concerned, through a display of warmth and caring, as well as objective. A growing body of literature is focusing on the emotional stresses experienced by persons in the helping professions.

It is clear from research findings that health and social service professionals need special training and preparation for working closely with people. Although they are usually well-trained in certain healing and service skills, they are often not well equipped to handle repeated, intense, emotional interactions with other people. Such intense involvement with people occurs on a large-scale, continuous basis for individuals employed in various health and social service professions. Frequently, they
are unable to cope with this continual emotional stress, and burnout results.

Burnout is not an isolated phenomenon that appears in a limited number of individuals. On the contrary, it occurs very frequently among a wide variety of people in many professions. Although burnout is a process so insidious that its exact etiology is difficult to trace, it does require a susceptible host. Highly idealistic professional registered nurses represent one occupational group whose members are frequent hosts. The emotional overload of burnout often results in professional autism. This study was aimed at ascertaining the relationship between degrees of burnout and graduates of the educational tracks utilized by registered nurses.

As mentioned in Chapter I, three types of educational programs which prepare individuals for the legal status of registered nurse exist today. These educational tracks vary in length, nature, extent of content taught, and type of job opportunities open to graduating students. The diploma program, under the control of hospitals, dates from 1872 in this nation and has historically been the major producer of practitioners in the field (25, p. 67). The four-year program of nursing education was established before the turn of the century. Four-year programs have produced graduates with baccalaureate degrees and made them
eligible for the examination process required to attain the legal status of registered nurse. The numbers of practitioners trained in these programs have consistently increased (25, p. 349). The newest of the three tracks of registered nurse education is the two-year associate degree program, first established in 1952 (17, p. 24). Today the largest numbers of practitioners are produced through these two-year programs. They offer the theoretical and clinical aspects of nursing concurrently with limited amounts of general academic coursework. Generally, the emphasis is upon episodic care, which is regarded as comprising the curative and restorative aspects of acute and chronic illness in a health care facility.

The most common pattern for the four-year nursing student is to complete general academic work during the first two years, as in other baccalaureate programs, and defer theoretical and clinical work in nursing until the third and fourth years of the program. Few general academic credits are earned during the last two years.

Graduates from the three curricular patterns attain licensure by passing the standardized National Test Pool developed and administered by state boards of nurse examiners in cooperation with the American Nurses' Association and the National League for Nursing (25, p. 348). Graduates of the three program take the same examination
for registration. Understandings, principles, and processes in nursing which are essential to safe care are measured by these tests (25, p. 67). The differences in the knowledge base of the graduates of the diploma, two-year, and four-year programs have not yet been identified (15, p. 17); studies have repeatedly revealed greater differences among the graduates of one of the programs than among those of all three (15, 23, 37, 46, 57).

A revolution has been taking place in nursing functions and nursing education, not only because some nurses may desire it but also because society requires it. Gilmour states that social pressures have created a demand for access to higher education for all (20, p. 4), yet there is a sense of ambiguity about the expressed need and desire of registered nurses for at least a baccalaureate degree. On one hand, the profession assumes that baccalaureate nurses are needed; on the other, it is clearly reluctant to promote the growth of university programs and to accept their product. This paradox can be seen in other studies which indicate a simultaneous demand for and rejection of baccalaureate education by the public in general and by nurses in particular (9). The far-reaching changes of recent years must be viewed against a background of social forces such as demands for better health care and more and better education, the social needs of the people,
the national economy, developments in higher education, technological and medical advances, and federal health legislation.

One of the strongest impacts on nursing during the 1950s and 1960s was that made by the escalating value placed by the public on higher education (54, p. 38). In the late 1960s, diploma schools experienced declining enrollments because they could not secure teachers, and associate degree programs developed because attracting teachers for specialized courses had also become increasingly difficult. Nursing tracks in community colleges evolved not to dispense general education but to offer technical instruction (33, p. 259).

In 1960, 84 per cent of new nurses were graduates of diploma programs (16, p. 37). Ten years later, in 1970, that proportion had fallen to 52 per cent. In 1960, 3 per cent of registered nurses were graduates of associate degree programs, which reflects in part the changing role of community colleges at that time. The pilot efforts of the early 1950s were evaluated and were generally considered to be adequate by nurse educators (16, p. 37), and associate degree programs expanded rapidly during the 1960s.

Registered nurses without baccalaureate degrees constitute the largest single category of nurses in the United
States today. Of all active registered nurses, 67 per cent attended diploma schools and 11 per cent completed associate degree programs, constituting the primary repository of skill and knowledge which interface daily with the American society (16, p. 37).

More than 97 per cent of practicing nurses are women (22, 26, 32, 39, 53), and many of the problems related to nursing are therefore problems affecting women in general. Nursing is one of numerous jobs classified as a "woman's domain," and librarians, teachers, secretaries, bookkeepers, and bank tellers have many of the same complaints as nurses concerning their employment. Lack of career planning is characteristically an issue among females because women have not been brought up to anticipate that they will be working in the labor market outside of their homes for most of their lives. According to Daniel and Cozart, one out of five nurses who leave the profession does so because of family changes (17, p. 25). Other accounts have placed the attrition rate resulting from family obligations as high as 36 per cent (45, p. 5), leaving 64 per cent of turnover among nurses as the result of voluntary causes. The Seybolt study indicated that leavers were younger than nurses who remained active, but no difference existed in rate of attrition based on marital status (17, p. 25). In 1980, Pantell and others found no relationship between
age, years of experience, or marital status and attrition rate (39, p. 346).

In 1981, approximately one million registered nurses were actively employed in this country of an estimated total of 2.5 million (2, p. 7). One of the main reasons why nurses leave the profession is "reality shock" (26), a term used to describe the reaction of new workers in situations that they thought they were prepared to handle but actually are not. In some instances, the disparity between expectations and reality is so strong that the individual actually cannot persevere. The shock is so great that, for the neophyte nurse, it carries with it a desire to reject the employing agency, the educational institution, and the profession as a whole (26, p. 11). The term "cultural shock" connotes that newcomers are expected to adjust gradually, whereas reality shock implies that the individual is projected into instant competence.

Professional conceptions often interfere with bureaucratic values (26, p. 22). A disparity exists between the job that is expected to be performed and its actuality, or between the professional self-image that the nurse holds, which implies independence, and the status afforded him or her by the physician or the nurse supervisor. According to one study, the conflict between school-bred values and work-world values is the primary reason for
the mass exodus of almost one-half of registered nurses from nursing practice (44, p. 13).

In 1974, Kramer found that one-third of all persons who entered nursing educational programs failed to graduate (26, p. 23). This fact is confirmed by Wilson and Levy's study, which points out that no rigid pre-enrollment requirements for nursing students and instruments to accurately predict their success in their training exist (56, p. 439). In a study conducted in Tennessee, Miller found that attrition rates in some nursing schools were higher than 40 per cent (32, p. 32). Miller also established that diploma programs had a dropout rate of over 40 per cent, whereas that in the associate degree programs he surveyed was 35 per cent (32, p. 36). Presumably, the individuals who complete their training are stronger than those who do not, yet one-third of nursing graduates consistently leave the profession within two years (44, p. 11).

The open-door policy of community colleges' terminal programs provides no real selection process at the time of admission and leads to increased dropout rates in all disciplines. Community college admission authorities examine the career interests of the applicants, not their Scholastic Achievement Test results (5, p. 29).

The baccalaureate curriculum is a more effective avenue for the teaching of the nursing process (49, p. 33).
This permits students to think more systematically and may contribute to their staying on the job longer after graduation (49, p. 36). As the nursing role is expanded to the point that more nurses are teachers, additional degree requirements will be viewed more critically (1; 34, p. 63). A survey by the National League for Nursing of 266 baccalaureate degree nursing programs indicated a shift to health education emphasizing wellness (19, p. 158). The baccalaureate track should aid the learning in analyzing and applying the relationships of contents, concepts, and principles in nursing practice (3, p. 38).

Registered nurses are faced daily with decisions involving ethics, but the specific qualities that identify and define nursing ethics are not agreed upon. A 1977 survey conducted by the Hastings Center found that only six of 86 schools in Florida offered a nursing curriculum requiring any course work in ethics (4, p. 7). One function of the nurse is to follow the physician's orders, right or wrong, no more and no less, which is in effect a usage of the physician's ethics. As nurses achieve additional professional recognition, they need their own ethics, and nurse ethics, whether or not in a state of infancy, are a product of general education associated with higher degrees (4, p. 8).

O'Rourke and Barten found that nursing students in all three types of training programs exhibited essentially the
same intellectual characteristics (36, p. 18). They also expressed similar degrees of consideration for subordinates and were inclined to respect their ideas. Baccalaureate students, however, rated higher on communication skills than did associate degree or diploma school graduates (36, p. 36).

California legislators are questioning the economic impact of maintaining diverse educational programs in nursing that qualify students for the same licensure examination and, in many cases, the same types of jobs (10, p. 71). Such legislative probing into the continued use of three educational tracks is extremely important because of the economic loss caused by attrition plus the known fact that health care is currently a target for budget reductions. The shortages of the past few years have placed added pressures on nurses who are working, which further exacerbates the problems of dissatisfaction, burnout, and defection (21, p. 7).

Attrition among nurses in California has been particularly high, as the White study reveals (55, p. 69). In 1979, 20 per cent of the registered nurse positions--10,500 jobs--in California were unfilled. According to White, of six students admitted to nursing schools, five would graduate, three would pass the licensure examination, two would work as nurses, and only one would be employed
in a hospital. Of interest in White's investigation is the finding that associate degree nurses changed jobs less often than either diploma or baccalaureate graduates and tended to remain in the same community (55, p. 70). This should indicate that the baccalaureate nurse is experiencing more vertical mobility or that the associate degree nurse has a different background. In 1981, the numbers of enrollees in California's allied health programs were reduced from previous years, which seems to reflect a national trend (14; 21, p. 24). In the face of such slight decreases in enrollment, recruiting nursing students is not yet a major problem, but retention is because excessive numbers of nurses continue to leave the profession. Rotenberg's investigation revealed that, as educational levels increased, attrition rates from nursing schools decreased (43, p. 431). The present study was intended to determine whether the same decrease in attrition would appear after students obtained their degrees because Rotenberg concludes that the cause of attrition was the failure of new nurses to understand nursing theory. According to Smeltzer, the baccalaureate graduate should have a superior grasp of nursing theory (49, p. 39).

Previous studies have considered nurses' job satisfaction in relation to turnover rates (48, p. 117). In general, the higher the nurse's perception of occupational
status, with regard to both the individual and the organization, the higher his or her level of satisfaction with the job. Findings from a 1981 study indicated that the most important factor contributing to job satisfaction was autonomy (35, p. 81). No effort was made to assess autonomy as a function of a particular educational track, but it is assumed that a higher academic degree would foster greater autonomy.

A 1980 investigation found no differences in performance as a function of the educational tracks leading registered nurses to critical care nursing (51, p. 47). However, the study did reveal a 50 per cent turnover in this area of nursing every 18 months, and research conducted under the auspices of the U.S. Department of Health and Human Services indicated that four out of ten registered nurses had been employed in their current positions for less than one year (52, p. 27). The median age of registered nurses, according to the DHHS report, was 49, which suggests that attrition among younger nurses was extremely high or that many nursing graduates completed their education later than students in other fields. The average age of a registered nurse with less than five years of experience was 41 (52, p. 32).

According to Woods, 45 per cent of all registered nurses in Massachusetts were inactive in 1970 (58, p. 9).
Again, this study included no information about educational tracks, but Woods did indicate that 12 per cent of Massachusetts' registered nurses had baccalaureate degrees and 18 per cent had either diploma or associate degrees. This ratio is similar to that found in Texas by Wandelt (53, p. 37). Woods believed that the total number of nurses in Massachusetts had risen slightly but pointed out that this increase was not keeping pace with the growing demand for nursing services (58, p. 23).

The DHHS report cited above indicates that between 500,000 and 600,000 registered nurses in this country were inactive in 1981 (52, p. 63), and a 1980 Texas study revealed that 18,000 registered nurses were not active in that state (53, p. 2). The statistics for Texas are conservative compared to those published a year earlier by the Texas Hospital Association, but neither report attempted to focus upon attrition in relation to educational track (51, p. 18). These figures further suggest that the number of registered nurse preparation programs in Texas is adequate but that they are not being used effectively.

The Texas Hospital Association study provides a further description of the state's registered nurses (51). Fifty-one per cent of those entering associate degree programs were under the age of 20 in 1979, compared to
85 per cent of those entering diploma and baccalaureate programs. Therefore, the average student beginning the associate program in Texas was slightly older than other nursing students. In addition, higher proportions of associate degree candidates were married and from minority racial backgrounds than were students in either the diploma or baccalaureate track (51, p. 15). These findings suggest that the community college was serving a different type of student than were institutions offering diploma and baccalaureate programs.

The Texas study stated that 39,472 registered nurses were active in the state, or 309 for every 100,000 persons (51, p. 41). This figure is low by Department of Labor standards, which recommend a ratio of four registered nurses per 1,000 persons. Perhaps this explains why, in 1980, 3,500 beds in Texas could not be staffed because of insufficient numbers of nurses (53, p. 3). The ratio of active to inactive nurses is also very low; 1982 statistics for Texas indicated that approximately 85,000 registered nurses in the state maintained their licenses. The investigators concluded that over-recruitment to increase the numbers of graduates who actually remained active as registered nurses represented a tremendous waste of financial resources (51, p. 48).

If the total delivery of health care services required only up-to-date technical skill, educators in the
field could rest on their laurels. Complaints about health service personnel typically are not concerned with their technical competence but, rather, with interpersonal, inter-group, authority, responsibility, emotional, and psychological relationships (12). The additional degrees associated with higher education constitute a pragmatic process of manipulating the learning situation to bring it as close to the real world as possible within a mass education system (13, p. 64).

The American Nurses' Association's publication Facts about Nursing cited approximately 112,000 admissions to nursing programs and 78,000 graduates entering the work force in 1980, of whom one-half would be active in nursing for two years (2, p. 74). Of the 112,000 students entering training, 21,000 were in diploma schools, 54,000 were enrolled in associate degree programs, and 37,000 were baccalaureate degree candidates. This represents a considerable shift in two decades, since one-half of registered nurses are now being produced by community colleges. The present study investigated the extent to which the burnout rate of nurses in Texas was a function of the high number of nurses graduating from associate degree programs.

The literature suggests several possible causes of burnout. Storlie views the primary contributing factor as disillusionment (50, p. 2108). She says that the influence
of illusions on human activity and human affairs is intangible but present. Illusions are fostered and protected in children, but as children mature most illusions are replaced by knowledge. This view is in accord with the works of Becker, Maslach, Pines and Maslach, and Rogers (6, 7, 8, 28, 29, 30, 41, 42). These authors agree that all innovations begin with the belief that something that is not now real could become so. Yet, for the idealistic nurse steeped in cure orientation for those to whom he or she is administering aid, a patient's further deterioration or death brings a collapse of the human spirit.

Paine and Rogers have examined the work environment (38, 42). Both believe that individual change that is not accompanied by change in the work place is a stopgap, counterproductive measure because it often raises unrealistic expectations. Lavandero regards unrealistic expectations as a function of lack of power (27, p. 21). He defines power as the ability to mobilize resources to get a job done and states that lack of power engenders feelings of helplessness and frustration. Nurses frequently experience these feelings, according to Lavandero, because they have numerous responsibilities without the power or authority to carry out certain health care functions when needed (27, p. 21).

Storlie characterizes burnout as resignation to a lack of power or personal surrender to the external
realities of a job (50, p. 2109). With this state of resignation all efforts to change a given situation stop. All friction ceases, and creativity is paralyzed. Others label the cause of this resignation as excessive idealism or an unrealistic confidence in one's ability to change patients (24, 27, 46, 47). McConnell reports that unrealistic goals derive, in part, from the widespread belief that adequate knowledge would not only prevent disease but also provide the necessary means to cure diseases already in process (31).

Clark and Patterson state that, the more responsibility individuals have for decision-making and leadership, the more likely they are to develop burnout (11, p. 42; 40, p. 89). These authors view administrators and supervisors as most vulnerable to burnout due to the pressure of providing or maintaining adequate support for personnel, including the occasional need to make unpopular decisions.

Freudenberg expresses similar views, citing the leadership responsibility for promotion and maintaining the efficiency of the work environment (18). This parallels the analysis of Garte and Rosenblum, whose findings led them to conclude that individuals who had to assume responsibility for the welfare of others as a result of their right or wrong choices, such as members of the helping professions, were highly susceptible to burnout (19).

Rogers describes a principle of reciprocity in which the human and the environmental fields mutually interact;
as reciprocal systems, man and the environment each molds and is molded simultaneously (42). With each repatterning, subsequent interaction is revised and new patternings in both man and the environment emerge. The only prediction of the direction for this repatterning of man and environment is that it will increase in complexity and that it will always be occurring, although more rapidly at some times than others.

Simultaneous repatterning has occurred in the nursing profession as a reciprocal system of the health care system, according to Rogers (42). If, because of increased technology in the health field, the repatterning of the nursing system involved intensely and intimately working with people and their social, psychological, and physical problems, as Rogers hypothesizes, it follows that the nurses spending the most time in this environment would be the ones most susceptible to burnout.

Maslach states that change in the health care system has occurred at a very rapid rate and in a unidirectional and increasingly complex manner (28, 29, 30, 41). She believes, for example, that the growth of technology fostered the need for improved skills and role changes as well as an increased dependency on hospitals for care. Maslach further believes that societal changes such as the breakdown of the family and a sense of community, accompanied
by an increased emphasis on the rights of those to whom care is given, have had a definite effect on the delivery of health care (28, p. 17).

Becker hypothesizes that man created illusions to deal with the fullness of life as well as his inability to understand death (6, p. 188; 7, p. 158; 8, p. 315). These included both outer illusions such as philosophy, religion, science, and art and inner illusions such as the belief in man's own active power and the power of others, based on the outer illusions. Becker states that man's greatest need is to deny the reality of death (6, p. 315). Although he does not view illusions as having a pathological origin, he believes that the fear of death must be present behind all normal functioning in order for the organism to be armed toward self-preservation. Becker goes a step further by saying that, when the presence of death comes to a constant level of consciousness, the organism cannot function (6, p. 184).

Individuals with a functional illusional system typically undergo a gradual erosion of that system if they often encounter the fragility of life (8, p. 315). Becker further postulates that, in experiencing this disintegration, the individual exhibits characteristics descriptive of a dysfunctional system. According to Becker, it has usually been assumed that nurses and others in the helping
professions were socialized to expect conditions such as illness, accidents, deaths, and violence that threaten the illusional systems of individuals (6). Such occurrences, it was believed, allowed nurses to use their skills; thus, the recurrence of these events was thought to reaffirm their needs as professionals rather than to disrupt their illusional systems.

Becker maintains that this theorization was not entirely correct (6, p. 188). He describes symptoms cited by several leading psychiatrists that illustrate that, although illness and the like appear to be blocked on a conscious level, they are not necessarily non-threatening on the unconscious level. Nurses who are frequently faced with conditions that demonstrate the fragility of life, Becker suggests, are likely to exhibit characteristics of a dysfunctional system (6, p. 179), although they might not be consciously aware that such conditions were related to their thoughts about themselves or about life in general.

Becker believes that involvement in art and religion is a measure through which individuals can protect their illusional systems (6, p. 204). He also maintains that the self-forgetful activities of daily living have importance for further fueling of the illusional system as they permit people to believe that they have power and control over their lives and deaths. Thus, these routine activities,
coupled with less intensive patient contact, not only lessen the erosion of the nurse's illusional system but improve the likelihood that events will occur to facilitate the rebuilding of that system.

The literature reveals that both personality variables and environmental factors contribute to the phenomenon of burnout. Its widespread occurrence suggests that the search for causes would be better directed away from identifying "bad people" and toward revealing the characteristics of "bad situations" in which many good people function. Burnout is not a condition of bad people, according to Kahn and Shubin, but of bad situations that prevent good, caring, genuine individuals from performing their jobs in an adequate manner (24, p. 62; 47, p. 25). No one specific environmental cause of burnout has been cited by the advocates of environmental etiology; all investigators agree that it is the result of prolonged occupational distress.

Ideally, according to Shubin, nurses and others in the helping professions should retain objectivity and distance from the situation without losing their concern for the recipients of their services (47, p. 24). Shubin warns that this "detached concerned" state is very difficult to establish and even more difficult to maintain. Nurses who attempt it usually resort to "distancing,"
which can bring harm to the clients whom they are trying to serve.

Shubin offers two recommendations to aid members of the helping professions in avoiding burnout. First, she states that professionals should continually seek new aspects of the job to master in order to maintain vital feelings toward their work. Shubin calls her second suggestion a "decompression routine"—engaging in a routine activity on a regular basis between leaving work and arriving home (47, p. 27). By doing this, the individual can relax and shut out some of the burdens of the job.

Clearly, the literature reveals that health and social service professionals pay a formidable price for working in their chosen careers. Stress is a normal part of work, and every individual develops many strategies for coping with it; some are effective and some are not. Burnout is perceived in many ways because the phenomenon is complex, and professionals differ in the manners by which they become cognizant of and react to this occupational hazard.

No single strategy guarantees to prevent burnout. As an area for scientific investigation, burnout is relatively new, but its causes appear to be diverse and longstanding. Pragmatically, an inner strength is required from the individual, arising from the ability to hold
oneself inviolate despite the stresses and shocks of external reality. Researchers disagree on many of the fundamental aspects of burnout, yet the consensus seems to dictate a need for further study of the phenomenon from the viewpoint of professionals, their clients, and the agencies involved. The present investigation sought to determine whether the inner strength coping mechanism was enhanced in registered nurses as a result of their achieving the baccalaureate degree.
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CHAPTER III

PROCEDURE OF THE STUDY

The major purpose of this study was to ascertain whether differences exist among the graduates of the three educational tracks utilized by registered nurses in Texas with respect to burnout rates. To gather this information, a standardized instrument was used, accompanied by a limited demographic questionnaire. Permission was sought and generously granted to utilize the Pines and Aronson Tedium-Burnout Diagnosis (Appendix A). The methodology of the study is described under the following general subheadings: instrument, collection of data, and treatment of data. The data analysis employed both descriptive and inferential statistics.

Instrument

The instrument selected for this study was the Pines and Aronson Tedium-Burnout Diagnosis (Appendix B), which can be found in Appendix II of Burnout: From Tedium to Personal Growth (5). The three authors of the instrument are all involved in research of a social-psychological nature. Ayala Pines, a research associate in the Psychology Department at the University of California-Berkeley, was one of the first scholars in the world to study burnout and tedium.
and has been directing workshops on that subject for more than eight years. Elliot Aronson, a professor of psychology at the University of California-Santa Cruz, is the author of more than 60 scholarly articles and 10 books addressing the subject of why professionals leave their careers. Among his works is *The Social Animal*, for which he won the National Media Award presented by the American Psychological Foundation. Ditsa Kafry received her doctorate from the University of California-Berkeley, where she is presently a research psychologist. Her master of arts degree was obtained at Hebrew University in Jerusalem. She has also extensively explored the causes of burnout among persons in the helping professions, particularly among women.

Pines collaborated with Christina Maslach early in 1974 to create the initial theoretical framework for the study of burnout (4, p. 1). The instrument to measure burnout was then conceived through the experience of the workshops that Pines was conducting with Aronson. The instrument that was developed included all three clusters of exhaustion reactions: physical (e.g., feeling weak, tired, rundown), emotional (e.g., feeling depressed, trapped, hopeless), and mental (e.g., self-perception of worthlessness, disillusionment, and resentment) (4, p. 3).

The instrument has been used by the authors since 1976. Its validity and reliability were established using
as subjects 3,916 professionals from the United States, Canada, Japan, and Israel (5). The authors define the term "tedium" as being the result of any prolonged chronic pressures (physical, emotional, or mental). It is characterized by emotional and physical depletion and by the negation of oneself, one's environment, one's work, and one's life. Burnout is identical to tedium but applies specifically to people who work with others in situations that are emotionally demanding (2, p. 247; 4, p. 2).

Subjects are asked to respond to the 23-item instrument by indicating how frequently they have experienced any of the reactions comprising the cluster. These items are presented in random order, and each is evaluated on a seven-point frequency scale. The overall tedium score is the mean value of the responses to the items, with four items reversed (feeling energetic, being happy, having a good day, feeling optimistic). Pines reports that respondents seldom give items scores of either one or seven (4, p. 3) since it is unlikely that an individual would be in the state of eternal euphoria implied by a score of one and it is equally unlikely that a person who scores seven would be able to cope with the world well enough to participate in a research project. A score of two or three, the authors found, generally indicated that the respondent was doing well (4, p. 3). A score of three or four suggests
that the person is experiencing burnout, and a score higher than five, Pines states, indicates an acute condition almost identical to clinical depression (4, p. 3).

The test-retest reliability of the Pines-Aronson instrument was found to be .89 for a one-month interval, .76 for a two-month interval, and .66 for a four-month interval. Internal consistency was assessed by the alpha coefficient for samples studied; values ranged between .91 and .93 (4, p. 4). The 30 samples studied initially ranged in size from nine to 274 individuals, but all were composed predominantly of professional women (5, p. 204). The overall mean value was 3.2 for men (N = 1,188) and 3.3 for women (N = 2,529). In one group comprised solely of registered nurses, the mean was 3.6 (5, p. 205). The authors carried out a factor analysis on this group of 352 nurses, and firm evidence was obtained that the instrument was assessing a single meaningful construct.

Pines and Aronson examined construct validity by correlational analyses with several other theoretically relevant measures; for example, burnout was found to be significantly and negatively correlated with self-ratings of satisfaction from work, from life, and from oneself. In one study involving 322 human service professionals, it was found that the correlation coefficient between burnout and work satisfaction was -.62; for life satisfaction, the
correlation was -.65, and for satisfaction from oneself it was -.62. In all cases the highly significant correlations (p < .001) indicated that, the more burned out professionals were, the less satisfied they were with their work, their lives, and themselves (4, p. 4).

Another consequence of burnout is job turnover. In a study conducted by the same investigators, burnout was found to be strongly correlated with an intention to leave the job (r = .59, p < .001) (5, p. 5). The Pines-Aronson instrument has consistently been highly negatively correlated with work attitudes and positively correlated with suicidal potential, tardiness, poor physical health, and insomnia (5, p. 5).

In the second questionnaire used in this study (Appendix C), participants were asked to provide information regarding demographic data such as age, educational preparation, and information relative to their current employment. The demographic data were used to give a further description of the sample, particularly with respect to the nurses' educational tracks.

Individuals were also asked to provide information regarding the number of years that had elapsed since their graduation from basic nursing programs, the numbers of years that they had been actively involved in nursing, whether they were currently employed, and whether their
employment, if any, was in the nursing field. The reports in current literature give mixed views on the need for further in-service training, primarily noting that leavers expressed a need for more in-service training than did those who remained active in the field (6, p. 40). Thus, respondents were asked to give their opinions of this perceived need, whether they were currently active or non-active in nursing.

This study attempted to examine vertical mobility as a function of educational track. Respondents named the highest position that they had held and the type of facility in which they held it, and they were asked to identify from a list provided the job titles that most closely corresponded to their current work. This method was chosen in order to limit the job categories to a number that would facilitate a refined statistical analysis. Since most or all nurses have had some degree of exposure to the hospital setting, traditional hospital job titles were listed because the nurses' familiarity with them would be most likely to enable them to accurately decide whether their job title was similar to one of those provided.

Collection of Data

The population for this study was all of the registered nurses currently licensed in Texas, as listed by name and address in the 1982 Roster of Registered
Professional Nurses for the State of Texas (1); the total number appearing in this document was approximately 84,000. The names are arranged alphabetically in the Roster, and a systematic sampling technique was utilized to obtain the 500 subjects needed for the study.

The survey instrument was mailed to these nurses with a covering letter (Appendix D) and a stamped, return-addressed envelope. Subjects were given a brief description of the purposes of the study in the covering letter and assured that all of the information they supplied would be kept in strict confidence. Respondents were further advised that answers to only a limited number of items were needed and that they would not be required at any point to reveal their identity.

Mailing was the method selected for distributing the questionnaires because it facilitated contact with a broad sampling of nurses representing a wide variety of work settings, job titles, educational backgrounds, and income levels. A follow-up postcard requesting that the questionnaire be returned was sent to non-respondents two weeks after the initial mailout. At the conclusion of an eight-week period, data collection was complete with a total of 290 usable questionnaires. The final return rate was 58 per cent.
Treatment of Data

Initially, the data analysis required determining a Pines and Aronson Tedium-Burnout Diagnosis score for each respondent. A low score on the instrument is considered good because of the procedure used in scoring. All items with a negative connotation (e.g., being tired) receiving a high score would indicate a higher frequency of those experiences, whereas a low score indicates that they have occurred less frequently. Items 8 and 23, which are not related to the assessment of tedium and burnout, are not included in the calculations. Seventeen of the remaining items are totaled, and items 3, 6, 20, and 21 (items with a positive connotation) are subtotaled and then subtracted from the larger sum. This score is then divided by 21 to determine the burnout score.

For research Hypotheses 1 through 6, a one-way analysis of variance was used. All data were analyzed by computer tabulation (3). For research Hypotheses 7 through 10, a two-way analysis of variance was employed, with the three educational tracks presented as rows and years of experience, number of years since graduation from the basic nursing program, and number of years actively involved in nursing practice represented in the columns. Statistics computed were distributions of responses for each survey item using frequencies and percentages. Respondents were
divided into two groups, active and non-active. For re-
search Hypotheses 11 through 15, a chi-square test of inde-
pendence was utilized to determine relationships. Based 
on these analyses, appropriate tables are presented and 
conclusions and recommendations are formulated in Chapters IV and V.
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CHAPTER IV

PRESENTATION OF FINDINGS

The purposes of the study were to determine whether the phenomenon of burnout differs as a result of the programs in which registered nurses received their education, coupled with determining further relationships with those same educational tracks and selected demographic data. Subjects of the study were 290 registered nurses currently licensed in the state of Texas. They were classified as working full-time, working part-time, and not currently working in nursing.

The first two hypotheses assessed burnout scores from the survey instrument, Hypotheses 3 through 10 examined burnout as a function of length of time since graduation from a nursing education program, and Hypotheses 11 through 15 sought information with respect to educational tracks and demographic data. This chapter is organized to parallel the purposes of the study and to present its results in sequential order.

Despite the fact that no request for additional comments was made in the questionnaire and participants were not required to reveal their identity, a number of the respondents included comments along with their names. Both
active and inactive nurses made remarks citing conditions that they believed might have altered their scores. Many participants expressed gratitude for having been selected for the study, and a limited number requested information about the study's results.

As shown in Table I, 290 usable questionnaires were returned of the 500 sent to registered nurses in Texas, for a response rate of 58 per cent. Twenty-five survey instruments were returned by the postal service subsequent to the expiration of mail forwarding orders for persons who had changed addresses.

TABLE I
RESPONSES TO THE SURVEY INSTRUMENT
(N = 290)

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Returns</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma, employed full-time</td>
<td>69</td>
<td>23.79</td>
</tr>
<tr>
<td>Associate, employed full-time</td>
<td>46</td>
<td>15.86</td>
</tr>
<tr>
<td>Baccalaureate, employed full-time</td>
<td>67</td>
<td>23.10</td>
</tr>
<tr>
<td>Diploma, employed part-time</td>
<td>22</td>
<td>7.59</td>
</tr>
<tr>
<td>Associate, employed part-time</td>
<td>9</td>
<td>3.10</td>
</tr>
<tr>
<td>Baccalaureate, employed part-time</td>
<td>20</td>
<td>6.90</td>
</tr>
<tr>
<td>Not active in nursing</td>
<td>57</td>
<td>19.66</td>
</tr>
<tr>
<td>Total</td>
<td>290</td>
<td>100.00</td>
</tr>
</tbody>
</table>
It is possible that the number of responses from associate degree holders was lowest since these programs producing registered nurses are relatively new.

Hypothesis 1

The data obtained for the analysis of Hypothesis 1 indicated that registered nurses with associate degrees employed full-time exhibited the highest level of burnout, and nurses with diplomas had the lowest level of burnout. The mean burnout scores for respondents employed full-time in all three educational categories are presented in Table II.

**TABLE II**

**MEAN BURNOUT SCORES FOR REGISTERED NURSES IN TEXAS EMPLOYED FULL-TIME (N = 182)**

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Mean Burnout Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma, employed full-time</td>
<td>3.17</td>
</tr>
<tr>
<td>Associate, employed full-time</td>
<td>3.60</td>
</tr>
<tr>
<td>Baccalaureate, employed full-time</td>
<td>3.32</td>
</tr>
</tbody>
</table>

The one-way analysis of variance presented in Table III shows that the levels of burnout among registered nurses who were employed full-time did not differ significantly at the .05 level with respect to their educational tracks--diploma, associate, or baccalaureate.
TABLE III
ONE-WAY ANALYSIS OF VARIANCE OF DEGREES OF BURNOUT AMONG REGISTERED NURSES EMPLOYED FULL-TIME FROM THREE EDUCATIONAL TRACKS (N = 182)

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>DF</th>
<th>F-Value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>5.02</td>
<td>2.51</td>
<td>2</td>
<td>2.73</td>
<td>0.07</td>
</tr>
<tr>
<td>Within groups</td>
<td>165.65</td>
<td>0.93</td>
<td>179</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hypothesis 1, which stated that differences exist among graduates of the three educational tracks with respect to degrees of burnout in registered nurses in Texas employed full-time, is not accepted. The F-value was 2.73, and the probability associated with it (p = 0.07) was greater than the nominal significant level (α = .05).

Hypothesis 2

The data obtained for the analysis of Hypothesis 2 indicated that registered nurses with associate degrees employed part-time exhibited the highest level of burnout, and nurses with diplomas had the lowest level of burnout. The mean burnout scores for respondents employed part-time in all three educational categories are presented in Table IV.
TABLE IV

MEAN BURNOUT SCORES FOR REGISTERED NURSES IN TEXAS EMPLOYED PART-TIME (N = 51)

<table>
<thead>
<tr>
<th>Respondents</th>
<th>Mean Burnout Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma, employed part-time</td>
<td>2.74</td>
</tr>
<tr>
<td>Associate, employed part-time</td>
<td>3.99</td>
</tr>
<tr>
<td>Baccalaureate, employed part-time</td>
<td>3.04</td>
</tr>
</tbody>
</table>

As was the case for Hypothesis 1, the associate group displayed the highest level of burnout, but the findings for this hypothesis are highly significant, as indicated by the analysis of variance presented in Table V.

TABLE V

ONE-WAY ANALYSIS OF VARIANCE OF DEGREES OF BURNOUT AMONG REGISTERED NURSES EMPLOYED PART-TIME FROM THREE EDUCATIONAL TRACKS (N = 51)

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>DF</th>
<th>F-Value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>10.16</td>
<td>5.08</td>
<td>2</td>
<td>7.99</td>
<td>0.001</td>
</tr>
<tr>
<td>Within groups</td>
<td>30.52</td>
<td>0.64</td>
<td>28</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The F-value was 7.99, and the probability associated with it was 0.001. Therefore, Hypothesis 2, which stated that differences exist among graduates of the three educational tracks with respect to degrees of burnout in
registered nurses in Texas employed part-time, is accepted. The analysis also suggests a post hoc or a posteriori comparison to determine which pair of groups created the significant difference in degree of burnout. Duncan’s Multiple Range Test was used to make this a posteriori comparison, the results of which are presented in Table VI.

**TABLE VI**

<table>
<thead>
<tr>
<th>Group</th>
<th>Mean</th>
<th>Duncan's Grouping*</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Associate degree</td>
<td>3.99</td>
<td>A</td>
<td>9</td>
</tr>
<tr>
<td>Baccalaureate degree</td>
<td>3.04</td>
<td>B</td>
<td>20</td>
</tr>
<tr>
<td>Diploma</td>
<td>2.78</td>
<td>B</td>
<td>22</td>
</tr>
</tbody>
</table>

*Means with the same letter were not significantly different at the .05 level.

Registered nurses employed part-time and holding associate degrees exhibited the highest degree of burnout, differing significantly from those holding baccalaureate degrees and diplomas. These latter two groups did not differ significantly with respect to degree of burnout.
Hypothesis 3

The data obtained for the analysis of Hypothesis 3 indicated that five groups of registered nurses employed full-time participated in the study: those for whom (1) less than six months, (2) one to two years, (3) two to five years, (4) five to ten years, and (5) more than ten years had elapsed since graduation from their basic nursing programs. None of the respondents employed full-time stated that they had graduated between six months and one year ago. The group of nurses in the sample who had graduated between five and ten years ago exhibited the highest level of burnout; those who had graduated between one and two years ago had the lowest. The average burnout scores for the highest and lowest groups were 3.76 and 2.80, respectively, among the 182 respondents who were employed full-time. Table VII displays mean burnout scores for Hypothesis 3.

The analysis of variance of burnout scores among the five groups of registered nurses employed full-time in the sample is presented in Table VIII. The F-value was 3.69, and the probability associated with it (p = 0.007) was less than the nominal significant level (α = .05). Therefore, Hypothesis 3, which stated that differences exist among the five groups with varying numbers of years since graduation with respect to degrees of burnout in
TABLE VII

MEAN BURNOUT SCORES FOR REGISTERED NURSES IN TEXAS EMPLOYED FULL-TIME BY TIME ELAPSED SINCE GRADUATION (N = 182)

<table>
<thead>
<tr>
<th>Time Elapsed since Graduation</th>
<th>N</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than six months</td>
<td>1</td>
<td>3.62</td>
</tr>
<tr>
<td>One to two years</td>
<td>5</td>
<td>2.80</td>
</tr>
<tr>
<td>Two to five years</td>
<td>21</td>
<td>3.52</td>
</tr>
<tr>
<td>Five to ten years</td>
<td>41</td>
<td>3.76</td>
</tr>
<tr>
<td>More than ten years</td>
<td>114</td>
<td>3.16</td>
</tr>
</tbody>
</table>

TABLE VIII

ONE-WAY ANALYSIS OF VARIANCE OF BURNOUT SCORES AMONG FIVE GROUPS OF REGISTERED NURSES EMPLOYED FULL-TIME (N = 182)

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>DF</th>
<th>F-Value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>13.09</td>
<td>3.27</td>
<td>4</td>
<td>3.69</td>
<td>0.007</td>
</tr>
<tr>
<td>Within groups</td>
<td>157.55</td>
<td>0.89</td>
<td>177</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Duncan's Multiple Range Test of the degrees of burnout among the five groups of registered nurses employed full-time, however, revealed no significant differences. The registered nurses employed full-time in Texas, is accepted.
fact that significant differences among groups could not be detected by this technique may be due to the unequal number of participants in each group--1, 5, 21, 21, 41, and 114--as shown in Table VII.

Hypothesis 4

The data obtained for the analysis of Hypothesis 4 indicated that four groups of registered nurses employed part-time participated in the study: those for whom (1) one to two years, (2) two to five years, (3) five to ten years, and (4) more than ten years had elapsed since graduation from their basic nursing program. None of the respondents employed part-time stated that they had graduated less than six months or between six months and one year ago. The registered nurses employed part-time who had graduated between five and ten years ago exhibited the highest degree of burnout, and those who had graduated between one and two years ago had the lowest. As indicated in Table IX, the mean burnout scores of the highest and lowest groups were 2.62 and 3.21, respectively.

The analysis of variance of burnout scores among the four groups of registered nurses employed part-time is presented in Table X. The F-value for the overall test of differences was 0.17, and the probability associated with it (p = 0.92) was greater than the nominal significant
TABLE IX

MEAN BURNOUT SCORES FOR REGISTERED NURSES IN TEXAS
EMPLOYED PART-TIME BY TIME ELAPSED SINCE
GRADUATION (N = 51)

<table>
<thead>
<tr>
<th>Time Elapsed since Graduation</th>
<th>N</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>One to two years</td>
<td>1</td>
<td>2.62</td>
</tr>
<tr>
<td>Two to five years</td>
<td>7</td>
<td>3.01</td>
</tr>
<tr>
<td>Five to ten years</td>
<td>14</td>
<td>3.21</td>
</tr>
<tr>
<td>More than ten years</td>
<td>29</td>
<td>3.12</td>
</tr>
</tbody>
</table>

level (α = .05). Therefore, Hypothesis 4, which stated that differences exist among the four groups with varying numbers of years since graduation with respect to degrees of burnout in registered nurses employed part-time in Texas, is not accepted.

TABLE X

ONE-WAY ANALYSIS OF VARIANCE OF BURNOUT SCORES
AMONG FOUR GROUPS OF REGISTERED NURSES
EMPLOYED PART-TIME (N = 51)

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>DF</th>
<th>F-Value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>0.44</td>
<td>0.15</td>
<td>3</td>
<td>0.17</td>
<td>0.92</td>
</tr>
<tr>
<td>Within groups</td>
<td>40.62</td>
<td>0.86</td>
<td>47</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The findings for Hypothesis 4 are the opposite of those for Hypothesis 2. Although registered nurses employed part-time manifested a significant difference in burnout scores, the results for Hypothesis 4 suggest that the scores were not a function of years since graduation.

Hypothesis 5

The data obtained for the analysis of Hypothesis 5 indicated that the 182 registered nurses employed full-time who participated in the study were classified in four groups according to the number of years during which they had been actively involved in nursing practice: (1) one to two years, (2) two to five years, (3) five to ten years, and (4) more than ten years. The nurses who had five to ten years of experience exhibited the highest degree of burnout; those with two to five years of experience had the lowest average burnout score. The mean burnout scores of the highest and lowest groups were 3.68 and 3.15, as shown in Table XI.

The analysis of variance of burnout scores among the four groups of registered nurses employed full-time is presented in Table XII. The F-value of the overall test of differences was 2.55, and the probability associated with it (p = 0.06) was greater than the nominal significant level (α = .05). Therefore, Hypothesis 5, which stated that differences exist among the four groups.
TABLE XI

MEAN BURNOUT SCORES FOR REGISTERED NURSES IN TEXAS EMPLOYED FULL-TIME BY NUMBER OF YEARS INVOLVED IN NURSING PRACTICE (N = 182)

<table>
<thead>
<tr>
<th>Years Involved in Nursing</th>
<th>N</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>One to two years</td>
<td>7</td>
<td>3.22</td>
</tr>
<tr>
<td>Two to five years</td>
<td>26</td>
<td>3.15</td>
</tr>
<tr>
<td>Five to ten years</td>
<td>45</td>
<td>3.68</td>
</tr>
<tr>
<td>More than ten years</td>
<td>101</td>
<td>3.24</td>
</tr>
</tbody>
</table>

with varying numbers of years of active involvement in nursing practice with respect to degrees of burnout in registered nurses employed full-time in Texas, is not accepted. The four groups of nurses did not differ significantly in the levels of burnout they exhibited.

TABLE XII

ONE-WAY ANALYSIS OF VARIANCE OF BURNOUT SCORES AMONG FOUR GROUPS OF REGISTERED NURSES EMPLOYED FULL-TIME (N = 182)

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>DF</th>
<th>F-Value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>7.30</td>
<td>2.43</td>
<td>3</td>
<td>2.55</td>
<td>0.06</td>
</tr>
<tr>
<td>Within groups</td>
<td>166.81</td>
<td>0.95</td>
<td>175</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Hypothesis 6

The data obtained for the analysis of Hypothesis 6 indicated that the 51 registered nurses employed part-time who participated in the study were classified in three groups according to the number of years during which they had been actively involved in nursing practice: (1) two to five years, (2) five to ten years, and (3) more than ten years. The nurses who had two to five years of experience exhibited the highest degree of burnout; those who had more than ten years of experience had the lowest average burnout score. The mean burnout scores of the highest and lowest groups were 3.20 and 2.94, respectively, as shown in Table XIII.

<table>
<thead>
<tr>
<th>Years Involved in Nursing</th>
<th>N</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Two to five years</td>
<td>28</td>
<td>3.20</td>
</tr>
<tr>
<td>Five to ten years</td>
<td>14</td>
<td>3.03</td>
</tr>
<tr>
<td>More than ten years</td>
<td>9</td>
<td>2.94</td>
</tr>
</tbody>
</table>

The findings for Hypothesis 2 revealed significant differences among the burnout levels of registered nurses
employed part-time with regard to their educational tracks. For Hypothesis 6, however, as for Hypothesis 4, the findings suggest that these differences are not related to years of active involvement in nursing, since significant differences were not found.

The analysis of variance of burnout scores among the three groups of registered nurses employed full-time is presented in Table XIV. The F-value for the overall test of differences was 0.35, and the probability associated with it (p = 0.71) was greater than the nominal significant level (α = .05). Therefore, Hypothesis 6, which stated that differences exist among the three groups with varying numbers of years of active involvement in nursing practice with respect to degrees of burnout in registered nurses employed part-time in Texas, is not accepted.

TABLE XIV

ONE-WAY ANALYSIS OF VARIANCE OF BURNOUT SCORES AMONG THREE GROUPS OF REGISTERED NURSES EMPLOYED PART-TIME (N = 51)

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>DF</th>
<th>F-Value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups</td>
<td>0.57</td>
<td>0.29</td>
<td>2</td>
<td>0.35</td>
<td>0.71</td>
</tr>
<tr>
<td>Within groups</td>
<td>39.69</td>
<td>0.83</td>
<td>28</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Hypothesis 7

Hypothesis 7 was designed to study the interaction or effect dependent upon the concomitant influence of two independent variables, (1) educational tracks and (2) number of years since graduation from basic nursing programs, for registered nurses in Texas employed full-time in relation to degree of burnout. Each of the independent variables was subdivided into three categories. The educational tracks were (1) diploma, (2) associate degree, and (3) baccalaureate degree; the levels of years since graduation were (1) two to five years, (2) five to ten years, and (3) more than ten years. The lower interval levels of the years since graduation were deliberately regrouped in the first level (two to five years) in order to control statistical errors due to empty cells. Therefore, a 3 x 3 two-way analysis of variance was employed in testing this hypothesis; a summary of the analysis is presented in Table XV.

This analysis of variance reveals no significant interaction between the two independent variables under study in relation to degree of burnout for registered nurses in Texas employed full-time. The F-value for testing the interaction was 0.00, and the probability associated with it was 1.000. This means that degree of burnout for registered nurses employed full-time was
TABLE XV

TWO-WAY ANALYSIS OF VARIANCE OF BURNOUT SCORES
BETWEEN EDUCATIONAL TRACKS AND YEARS SINCE
GRADUATION FOR REGISTERED NURSES IN TEXAS
EMPLOYED FULL-TIME (N = 182)

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>DF</th>
<th>F-Value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between columns</td>
<td>5.02</td>
<td>2.51</td>
<td>2</td>
<td>2.79</td>
<td>0.064</td>
</tr>
<tr>
<td>Between rows</td>
<td>10.95</td>
<td>5.84</td>
<td>2</td>
<td>6.07</td>
<td>0.003</td>
</tr>
<tr>
<td>Interaction</td>
<td>0.00</td>
<td>0.00</td>
<td>4</td>
<td>0.00</td>
<td>1.000</td>
</tr>
</tbody>
</table>

independent of rather than dependent upon the concomitant influence of their educational tracks and the number of years since their graduation. Therefore, the main effects (column and row effects) are considered to be independent, and Hypothesis 7, which stated that an interaction exists between the educational tracks of registered nurses and number of years since graduation from their basic nursing programs, based on degrees of burnout among registered nurses in Texas employed full-time, is not accepted.

Hypothesis 8

Hypothesis 8 was designed to study the interaction or effect dependent upon the concomitant influence of two independent variables, (1) educational tracks and (2) number of years since graduation from basic nursing programs,
for registered nurses in Texas employed part-time in relation to degree of burnout. Each of the independent variables was subdivided into three categories. The educational tracks were (1) diploma, (2) associate degree, and (3) baccalaureate degree; the levels of years since graduation were (1) two to five years, (2) five to ten years, and (3) more than ten years. The lower intervals of years since graduation were deliberately regrouped into the first level (two to five years) in order to minimize statistical errors due to empty cells. Therefore, a 3 x 3 two-way analysis of variance was employed in testing this hypothesis; a summary of the analysis is presented in Table XVI.

TABLE XVI

TWO-WAY ANALYSIS OF VARIANCE OF BURNOUT SCORES BETWEEN EDUCATIONAL TRACKS AND YEARS SINCE GRADUATION FOR REGISTERED NURSES IN TEXAS EMPLOYED PART-TIME (N = 51)

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>DF</th>
<th>F-Value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between columns</td>
<td>10.16</td>
<td>5.08</td>
<td>2</td>
<td>7.73</td>
<td>0.001</td>
</tr>
<tr>
<td>Between rows</td>
<td>0.30</td>
<td>0.15</td>
<td>2</td>
<td>0.23</td>
<td>0.80</td>
</tr>
<tr>
<td>Interaction</td>
<td>2.65</td>
<td>0.66</td>
<td>4</td>
<td>1.01</td>
<td>0.41</td>
</tr>
</tbody>
</table>
This analysis of variance reveals no significant interaction between the two independent variables under study in relation to degree of burnout for registered nurses in Texas employed part-time. The F-value for testing the interaction was 1.01, and the probability associated with it (p = 0.41) was greater than the nominal significant level (α = .05). This means that degree of burnout for registered nurses employed part-time was independent of rather than dependent upon the concomitant influence of their educational tracks and the number of years since their graduation. Therefore, the main effects (column and row effects) are considered to be independent, and Hypothesis 8, which stated that an interaction exists between the educational tracks of registered nurses and number of years since graduation from their basic nursing programs, based on degrees of burnout among registered nurses in Texas employed part-time, is not accepted.

Hypothesis 9

Hypothesis 9 was designed to study the interaction or effect dependent upon the concomitant influence of two independent variables, (1) educational tracks and (2) number of years of active involvement in nursing practice, for registered nurses in Texas employed full-time in relation to degree of burnout. Each of the two independent variables was subdivided into three categories. The three
educational tracks were (1) diploma, (2) associate degree, and (3) baccalaureate degree; the levels of years in nursing practice were (1) two to five years, (2) five to ten years, and (3) more than ten years. The lower intervals of years in nursing practice were deliberately regrouped into the first level (two to five years) in order to minimize statistical errors due to empty cells. Therefore, a 3 x 3 two-way analysis of variance was employed in testing this hypothesis; a summary of the analysis is presented in Table XVII.

**TABLE XVII**

TWO-WAY ANALYSIS OF VARIANCE OF BURNOUT SCORES BETWEEN EDUCATIONAL TRACKS AND YEARS OF ACTIVE INVOLVEMENT IN NURSING PRACTICE FOR REGISTERED NURSES IN TEXAS EMPLOYED FULL-TIME (N = 182)

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>DF</th>
<th>F-Value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between columns</td>
<td>3.83</td>
<td>1.92</td>
<td>2</td>
<td>2.02</td>
<td>0.14</td>
</tr>
<tr>
<td>Between rows</td>
<td>7.28</td>
<td>3.64</td>
<td>2</td>
<td>3.83</td>
<td>0.02</td>
</tr>
<tr>
<td>Interaction</td>
<td>1.62</td>
<td>0.41</td>
<td>4</td>
<td>0.43</td>
<td>0.79</td>
</tr>
</tbody>
</table>

This analysis reveals no significant interaction between the two independent variables under study in relation to degree of burnout for registered nurses in Texas employed full-time. The F-value for testing the interaction
was 0.41, and the probability associated with it (p = 0.79) was greater than the nominal significant level (α = .05). This means that degree of burnout for registered nurses employed full-time was independent of rather than dependent upon the concomitant influence of their educational tracks and their years in nursing practice. Therefore, the main effects (column and row effects) are considered to be independent, and Hypothesis 9, which stated that an interaction exists between the educational tracks of registered nurses and number of years of their active involvement in nursing practice, based on degrees of burnout among registered nurses in Texas employed full-time, is not accepted.

Hypothesis 10

Hypothesis 10 was designed to study the interaction or effect dependent upon the concomitant influence of two independent variables, (1) educational tracks and (2) number of years of active involvement in nursing practice, for registered nurses in Texas employed part-time in relation to degree of burnout. Each of the two independent variables was subdivided into three categories. The three educational tracks were (1) diploma, (2) associate degree, and (3) baccalaureate degree; the levels of years in nursing practice were (1) two to five years, (2) five to ten years, and (3) more than ten years. The lower
intervals of years in nursing practice were deliberately regrouped into the first level (two to five years) in order to minimize statistical errors due to empty cells. Therefore, a 3 x 3 two-way analysis of variance was employed in testing this hypothesis; a summary of the analysis is presented in Table XVIII.

TABLE XVIII

TWO-WAY ANALYSIS OF VARIANCE OF BURNOUT SCORES BETWEEN EDUCATIONAL TRACKS AND YEARS OF ACTIVE INVOLVEMENT IN NURSING PRACTICE FOR REGISTERED NURSES IN TEXAS EMPLOYED PART-TIME (N = 51)

<table>
<thead>
<tr>
<th>Source of Variation</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>DF</th>
<th>F-Value</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between columns</td>
<td>12.84</td>
<td>6.42</td>
<td>2</td>
<td>12.43</td>
<td>0.0001</td>
</tr>
<tr>
<td>Between rows</td>
<td>0.57</td>
<td>0.29</td>
<td>2</td>
<td>0.55</td>
<td>0.58</td>
</tr>
<tr>
<td>Interaction</td>
<td>5.16</td>
<td>1.29</td>
<td>4</td>
<td>2.50</td>
<td>0.06</td>
</tr>
</tbody>
</table>

This analysis reveals no significant interaction between the two independent variables under study in relation to degree of burnout for registered nurses in Texas employed part-time. The F-value for testing the interaction was 2.50, and the probability associated with it (p = 0.06) was greater than the nominal significant level (α = .05). This means that degree of burnout for registered nurses employed part-time was independent of rather than dependent
upon the concomitant influence of their educational tracks and their years in nursing practice. Therefore, the main effects (column and row effects) are considered to be independent, and Hypothesis 10, which stated that an interaction exists between the educational tracks of registered nurses and number of years of their active involvement in nursing practice, based on degrees of burnout among registered nurses in Texas employed part-time, is not accepted.

Hypothesis 11

Hypothesis 11 stated that a relationship exists between graduates of the three educational tracks and their parents' income level during the period when the registered nurses were receiving their professional training. The three educational tracks were (1) diploma, (2) associate degree, and (3) baccalaureate degree; the levels of parents' income were (1) lower, (2) lower-middle, (3) middle, (4) upper-middle, and (5) upper. A chi-square test of independence was employed in testing this hypothesis at the .05 level; frequencies and percentages of cases for all cells are presented in Table XIX.

The data in Table XIX indicate that a highly significant relationship exists between educational tracks utilized by registered nurses and parents' income level during their professional education. The chi-square value for testing the two independent variables was 36.381
### TABLE XIX

**FREQUENCY AND PERCENTAGE FOR EACH CELL: EDUCATIONAL TRACKS AND PARENTS' INCOME DURING PROFESSIONAL TRAINING AMONG ACTIVE REGISTERED NURSES IN TEXAS (N = 233)**

<table>
<thead>
<tr>
<th>Educational Track</th>
<th>Parents' Income</th>
<th>Lower</th>
<th>Lower-Middle</th>
<th>Middle</th>
<th>Upper-Middle</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
<td>Diploma</td>
<td></td>
<td>17</td>
<td>7.42</td>
<td>37</td>
<td>16.16</td>
<td>28</td>
</tr>
<tr>
<td>Associate degree</td>
<td></td>
<td>2</td>
<td>0.87</td>
<td>15</td>
<td>6.55</td>
<td>30</td>
</tr>
<tr>
<td>Baccalaureate degree</td>
<td></td>
<td>8</td>
<td>3.49</td>
<td>22</td>
<td>9.61</td>
<td>27</td>
</tr>
</tbody>
</table>

χ² = 36.381  
DF = 8  
p = 0.0001

with eight degrees of freedom, and the probability was very significant at the 0.0001 level. This means that registered nurses who pursued higher educational tracks also had higher levels of parental income during their professional training. Therefore, Hypothesis 11 is accepted.

**Hypothesis 12**

Hypothesis 12 stated that a relationship exists between graduates of the three educational tracks and desire for additional in-service training among active registered nurses in Texas. The three educational tracks were (1) diploma, (2) associate degree, and (3) baccalaureate degree;
desire for additional in-service training was classified as (1) no and (2) yes. A chi-square test of independence was employed in testing this hypothesis at the .05 level; frequencies and percentages of cases for all cells are presented in Table XX.

**TABLE XX**

**FREQUENCY AND PERCENTAGE FOR EACH CELL: EDUCATIONAL TRACKS AND DESIRE FOR ADDITIONAL IN-SERVICE TRAINING AMONG ACTIVE REGISTERED NURSES IN TEXAS (N = 233)**

<table>
<thead>
<tr>
<th>Educational Track</th>
<th>Desire for Additional In-Service Training</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Diploma</td>
<td>20</td>
</tr>
<tr>
<td>Associate degree</td>
<td>16</td>
</tr>
<tr>
<td>Baccalaureate degree</td>
<td>16</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 1.268 \]
\[ \text{DF} = 2 \]
\[ p = 0.5304 \]

The data in Table XX indicate that about two-thirds of the registered nurses in each of the three groups expressed a desire for additional in-service training. The chi-square value for testing the two independent variables was 1.268 with two degrees of freedom and a probability of 0.5304. This means that desire for additional in-service
training among active registered nurses in Texas was independent of their educational tracks. Therefore, Hypothesis 12 is not accepted.

Hypothesis 13

Hypothesis 13 stated that a relationship exists between graduates of the three educational tracks currently classified as non-active and desire for additional in-service training that would influence their reentry into active nursing. The three educational tracks were (1) diploma, (2) associate degree, and (3) baccalaureate degree; desire for additional in-service training was classified as (1) no and (2) yes. A chi-square test of independence was employed in testing this hypothesis at the .05 level; frequencies and percentages of cases for all cells are presented in Table XXI.

The data in Table XXI indicate that non-active registered nurses did not express a strong desire for additional in-service training since the frequencies and percentages for the "no" responses were higher than those for the "yes" responses. The chi-square value for testing the independent variables was 0.13 with two degrees of freedom, and the probability associated with it was 0.94. This means that desire for additional in-service training among non-active registered nurses in Texas was independent of
their educational tracks. Therefore, Hypothesis 13 is not accepted.

**TABLE XXI**

**FREQUENCY AND PERCENTAGE FOR EACH CELL: EDUCATIONAL TRACKS AND DESIRE FOR ADDITIONAL IN-SERVICE TRAINING AMONG NON-ACTIVE REGISTERED NURSES IN TEXAS (N = 57)**

<table>
<thead>
<tr>
<th>Educational Track</th>
<th>Desire for Additional In-Service Training</th>
<th>No</th>
<th>%</th>
<th>Yes</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma</td>
<td></td>
<td>23</td>
<td>40.35</td>
<td>9</td>
<td>15.79</td>
</tr>
<tr>
<td>Associate degree</td>
<td></td>
<td>7</td>
<td>12.28</td>
<td>3</td>
<td>5.26</td>
</tr>
<tr>
<td>Baccalaureate degree</td>
<td></td>
<td>10</td>
<td>17.54</td>
<td>5</td>
<td>8.77</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 0.13 \]

DF = 2

p = 0.94

**Hypothesis 14**

Hypothesis 14 stated that a relationship exists between graduates of the three educational tracks and annual income of registered nurses in Texas. The three educational tracks were (1) diploma, (2) associate degree, and (3) baccalaureate degree; annual income for the registered nurses was classified in seven intervals: (1) $15,999 or less, (2) $16,000 to $17,999, (3) $18,000 to $19,999, (4) $20,000 to $21,999, (5) $22,000 to $23,999, (6) $24,000
to $25,999 and (7) $26,000 and over. These intervals were reclassified to collapse some low frequency cells which had fewer than five cases in order to improve accuracy and reduce statistical errors. A chi-square test of independence was employed in testing this hypothesis at the .05 level; frequencies and percentages of cases for all cells are presented in Table XXII.

The data in Table XXII indicate that the annual income of active registered nurses in Texas was related to their educational tracks. The chi-square value for testing the two independent variables was 26.653 with twelve degrees of freedom and a significant probability of 0.0087. Therefore, Hypothesis 14 is accepted.

As indicated in Table XXIII, registered nurses holding associate degrees in this sample earned considerably less, on the average, than either diploma or baccalaureate degree nurses. In addition, baccalaureate graduates earned slightly less than diploma graduates, which suggests that income was based on tenure because diploma graduates were older and had been active in the profession for more years than their colleagues with associate and baccalaureate degrees.

Hypothesis 15

Hypothesis 15 stated that a relationship exists between graduates of the three educational tracks and
### TABLE XXII

**FREQUENCY AND PERCENTAGE FOR EACH CELL: EDUCATIONAL TRACKS AND ANNUAL INCOME AMONG REGISTERED NURSES IN TEXAS (N = 182)**

<table>
<thead>
<tr>
<th>Educational Track</th>
<th>Annual Income</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$15,999-</td>
<td>$16,000-</td>
<td>$17,999</td>
<td>$18,000-</td>
<td>$19,999</td>
<td>$20,000-</td>
<td>$21,999</td>
<td>$22,000-</td>
<td>$23,999</td>
<td>$24,000-</td>
<td>$25,999</td>
<td>$26,000 and Over</td>
<td></td>
</tr>
<tr>
<td>Diploma</td>
<td>or Less</td>
<td>$19,999</td>
<td>$21,999</td>
<td>$22,000-</td>
<td>$23,999</td>
<td>$24,000-</td>
<td>$25,999</td>
<td>$26,000 and Over</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diploma</td>
<td>5</td>
<td>2.76</td>
<td>7</td>
<td>2.78</td>
<td>4</td>
<td>2.21</td>
<td>7</td>
<td>3.87</td>
<td>9</td>
<td>4.97</td>
<td>12</td>
<td>6.63</td>
<td>26</td>
</tr>
<tr>
<td>Associate degree</td>
<td>5</td>
<td>2.76</td>
<td>2</td>
<td>1.10</td>
<td>12</td>
<td>6.63</td>
<td>4</td>
<td>2.21</td>
<td>9</td>
<td>4.97</td>
<td>8</td>
<td>4.42</td>
<td>6</td>
</tr>
<tr>
<td>Baccalaureate degree</td>
<td>9</td>
<td>4.97</td>
<td>1</td>
<td>0.55</td>
<td>7</td>
<td>3.87</td>
<td>11</td>
<td>6.08</td>
<td>10</td>
<td>5.52</td>
<td>5</td>
<td>2.76</td>
<td>23</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 26.653 \]
\[ DF = 12 \]
\[ p = 0.0087 \]
### TABLE XXIII

**AVERAGE ANNUAL INCOMES FOR REGISTERED NURSES IN TEXAS: 1983 (N = 182)**

<table>
<thead>
<tr>
<th>Educational Track</th>
<th>Average Annual Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diploma</td>
<td>$23,173.91</td>
</tr>
<tr>
<td>Associate degree</td>
<td>$21,121.74</td>
</tr>
<tr>
<td>Baccalaureate degree</td>
<td>$22,606.37</td>
</tr>
</tbody>
</table>

Vertical mobility of registered nurses in Texas. The three educational tracks were (1) diploma, (2) associate degree, and (3) baccalaureate degree; vertical mobility was classified at five levels: (1) staff nurse, (2) clinical specialty, (3) charge nurse, (4) director of nursing, and (5) administrative. A chi-square test of independence was employed in testing this hypothesis at the .05 level; frequencies and percentages of cases for all cells are presented in Table XXIV.

The data in Table XXIV indicate that the vertical mobility of active registered nurses in Texas is not related to their educational tracks. For example, diploma graduates might exhibit higher or lower vertical job mobility depending upon individual levels of performance and the availability of better positions. The chi-square value for testing the two independent variables was 13.293 with eight degrees of freedom, and the probability was 0.1022,
TABLE XXIV

FREQUENCY AND PERCENTAGE FOR EACH CELL: EDUCATIONAL TRACKS AND VERTICAL MOBILITY AMONG REGISTERED NURSES IN TEXAS (N = 182)

<table>
<thead>
<tr>
<th>Educational Track</th>
<th>Vertical Mobility</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Staff Nurse</td>
<td>Clinical Specialty Nurse</td>
<td>Charge Nurse</td>
<td>Director of Nursing</td>
<td>Administrative</td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
<td>N</td>
<td>%</td>
</tr>
<tr>
<td>Diploma</td>
<td>5</td>
<td>2.75</td>
<td>6</td>
<td>3.30</td>
<td>37</td>
<td>20.33</td>
</tr>
<tr>
<td>Associate degree</td>
<td>7</td>
<td>3.85</td>
<td>6</td>
<td>3.30</td>
<td>27</td>
<td>14.84</td>
</tr>
<tr>
<td>Baccalaureate degree</td>
<td>9</td>
<td>4.95</td>
<td>8</td>
<td>4.40</td>
<td>25</td>
<td>13.74</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 13.293 \]  
\[ DF = 8 \]  
\[ p = 0.1022 \]

which was greater than the nominal significant level (\( \alpha = 0.05 \)). Therefore, Hypothesis 15 is not accepted.
CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The primary purpose of the current investigation was to examine burnout as experienced by registered nurses in Texas and to determine to what degree that phenomenon was a function of the nurses' educational backgrounds. A second purpose of the study was to examine burnout as a function of job tenure. Finally, a third purpose was to investigate the relationships between educational tracks and selected demographic data.

The discussion was initiated with a survey of the literature. Recent books, professional journals, reports, and dissertations were assessed to compile a review of the nursing literature with respect to burnout and nurse attrition. The nursing profession has been a fertile field for investigators of this topic for the past thirty years, as evidenced by voluminous scholarly research, but the phenomenon of burnout is relatively new as an area for scientific examination, and few investigators have attempted to understand it in this context.

Society has placed revolutionary demands on health care delivery, nursing functions, and nursing education.
This same society maintains that higher degrees are needed but, at the same time, seemingly remains reluctant to promote the growth of university programs or to accept their graduates. Part of this social ambiguity stems from the fact that complaints concerning nurses and nursing focus on interpersonal relationships rather than technical competence. Since little difference in nursing performance appears to be a function of a particular educational track, it seemed desirable to examine to what degree higher education eased emotional overloads that contribute to burnout.

The instrument used to collect data for the study was a two-part questionnaire. The first part was the standardized Pines and Aronson Tedium-Burnout Diagnosis (4). The second part of the instrument was used to collect selected demographic data, which were employed in analyzing burnout scores as a function of how registered nurses received their education and in determining whether burnout rates differed with regard to educational tracks and job tenure.

The population for this study was all of the registered nurses in Texas. Using a systematic random sampling technique, 500 currently licensed registered nurses were sent questionnaires during the summer of 1983. Of that number, 290 usable responses were received, for a return
rate of 58 per cent. For purposes of analysis, respondents were divided into three groups: those employed full-time, those employed part-time, and those currently not active in nursing.

A one-way analysis of variance was employed to analyze Hypothesis 1 through 6 in order to examine the differences among graduates of the three educational tracks with regard to burnout scores and job tenure. A two-way analysis of variance was used to analyze Hypotheses 7 through 10 in order to examine interactions among these variables. Chi-square analysis was employed to investigate relationships between graduates of the three educational tracks and demographic data in order to test Hypotheses 11 through 15.

Hypothesis 1 stated that differences exist among graduates of the three educational tracks with respect to degrees of burnout in registered nurses in Texas employed full-time. The results of the study with regard to this hypothesis are similar to those obtained by Pines and Aronson, who reported average burnout scores of 3.2 when not controlling for how the nurses received their education (3, p. 10). In the current investigation, diploma graduates averaged 3.17, associate graduates averaged 3.60, and baccalaureate graduates averaged 3.32. These differences among the scores were not significant and the hypothesis was not accepted, suggesting that the nursing
profession is one in which burnout is independent of educational background. Further observation of the nurses employed full-time indicated that diploma graduates were older than other registered nurses; their mean age was 47.96 years and those of the baccalaureate group and the associate group were 36.63 years and 34.89 years, respectively.

Hypothesis 2 stated that differences exist among graduates of the three educational tracks with respect to degrees of burnout in registered nurses in Texas employed part-time. Nurses employed part-time were deliberately grouped separately because it was postulated that the intensity of the full-time employment could yield a higher burnout score and that, conversely, working less could lower the score. The hypothesis was accepted because of the highly significant differences found between associate degree nurses employed part-time and the other two groups of nurses. The score of 3.99 for the associate degree group was considerably higher than those of the diploma group (2.74) and the baccalaureate group (3.04).

Hypothesis 3 stated that differences exist among the five groups with varying numbers of years since graduation with respect to degrees of burnout in registered nurses in Texas employed full-time. Although the hypothesis was accepted, the result was different from what was
expected. The findings suggest that the initial period after graduation was difficult for registered nurses and that, after two years or more, the intensity of giving care began to make its presence felt. The 41 respondents in the interval of five to ten years since graduation exhibited the highest burnout scores; after ten years, however, the scores decreased, suggesting that additional coping devices worked more effectively for those 114 nurses. The unequal numbers in the cells made the Duncan's Multiple Range Test difficult to interpret. The findings obtained here diverge from those of Kramer, who contends that one-third of all registered nurses leave during their first two years because of "reality shock" (1, p. 23).

Hypothesis 4 stated that differences exist among the four groups with varying numbers of years since graduation with respect to degrees of burnout in registered nurses in Texas employed part-time. No differences were found among these groups, and the hypothesis was not accepted.

Hypothesis 5 stated that differences exist among the four groups with varying numbers of years of active involvement in nursing practice with respect to degrees of burnout in registered nurses in Texas employed full-time. No differences were found among these groups, and the hypothesis was not accepted. This suggests that burnout was not a function of years of active involvement in nursing practice for registered nurses in Texas employed full-time.
Hypothesis 6 stated that differences exist among the three groups with varying numbers of years of active involvement in nursing practice with respect to degrees of burnout in registered nurses in Texas employed part-time. No differences were found among these groups, and the hypothesis was not accepted.

Hypothesis 7 stated that an interaction exists between the educational tracks of registered nurses and number of years since graduation from their basic nursing programs, based on degrees of burnout among registered nurses in Texas employed full-time. No interaction was found, and the hypothesis was not accepted. These results do not support the findings of Maslach and Pines, who state that, the longer individuals worked in the nursing profession, the higher degrees of burnout they exhibited (2, p. 57).

Hypothesis 8 stated that an interaction exists between the educational tracks of registered nurses and number of years since graduation from their basic nursing programs, based on degrees of burnout among registered nurses in Texas employed part-time. No interaction was found, and the hypothesis was not accepted. Since the burnout scores for registered nurses employed part-time in this sample were higher than those of registered nurses employed full-time, it could be postulated that nurses with the highest degrees of burnout had already left the profession.
Hypothesis 9 stated that an interaction exists between the educational tracks of registered nurses and number of years of their active involvement in nursing practice, based on degrees of burnout among registered nurses in Texas employed full-time. No interaction was found, and the hypothesis was not accepted. This result further indicates that degree of burnout was independent of the concomitant influence of educational tracks and years of active involvement in nursing practice.

Hypothesis 10 stated that an interaction exists between the educational tracks of registered nurses and number of years of their active involvement in nursing practice, based on degrees of burnout among registered nurses in Texas employed part-time. No interaction was found, and the hypothesis was not accepted.

Hypothesis 11 stated that a relationship exists between graduates of the three educational tracks and their parents' income during the period when the registered nurses were receiving their professional training. General income categories were used because of the changing economic conditions that prevailed during the span of years when the nurses in this sample were enrolled in school; for example, the dollar value of a middle income would be very different in the 1930s than in the 1970s. The results of this analysis were highly significant, and the
hypothesis was accepted; the data indicated that the baccalaureate degree nurses enjoyed an economic advantage during their educational years. This supports the findings of the Texas Hospital Association's 1980 study, which concluded that the community college was serving a different type of student than the four-year senior college (5).

Hypothesis 12 stated that a relationship exists between graduates of the three educational tracks and desire for additional in-service training among active registered nurses in Texas. A relationship was not found, and the hypothesis was not accepted. However, approximately two-thirds of the registered nurses employed both full-time and part-time in this sample did express a desire for additional in-service training, independent of their educational tracks.

Hypothesis 13 stated that a relationship exists between graduates of the three educational tracks currently classified as non-active and desire for additional in-service training that would influence their reentry into active nursing. No relationship was found, and the hypothesis was not accepted. This finding suggests that non-active registered nurses in this sample did not view additional in-service training as a factor that would overcome or negate their reason for leaving the profession.
Hypothesis 14 stated that a relationship exists between graduates of the three educational tracks and annual income of registered nurses in Texas. A relationship was found between the two independent variables, and the hypothesis was accepted.

Hypothesis 15 stated that a relationship exists between graduates of the three educational tracks and vertical mobility of registered nurses in Texas. No relationship was found, and the hypothesis was not accepted. This suggests that vertical mobility in nursing, as in most other professions, is a function of performance rather than educational tracks. Associate and baccalaureate degree graduates in the sample were younger than diploma graduates, and their positions could change with time.

Conclusions

The following conclusions are drawn from the analysis of findings in this study.

1. Although causes of burnout are varied, the phenomenon appears not to be related to educational tracks or to the specific type of training that registered nurses receive in Texas.

2. Registered nurses' income and mobility are functions of performance or specific locations of employment, not necessarily of their educational backgrounds.
3. Burnout is only one of several variables that contribute to nursing attrition.

**Recommendations**

The following recommendations are made on the basis of the findings and conclusions of this study.

1. Directors of health facilities should examine their specific situations and ascertain appropriate topics suitable for quality in-service training.

2. Individuals who yield low burnout scores should be studied to ascertain their various burnout coping strategies and decompression routines.

3. Educational institutions, specifically community colleges, should incorporate stress management techniques into their nursing curricula.

4. A survey of registered nurses should be conducted to examine degrees of burnout as a function of the nurses' gender.

5. An investigation of degrees of burnout among registered nurses, controlling for work place and major occupational categories, should be conducted.

6. A longitudinal study should be conducted to investigate the relationship of educational tracks of registered nurses and the degrees of burnout for different major occupational categories.
CHAPTER BIBLIOGRAPHY


5. Texas Hospital Association, Survey of Nursing Staff Requirements, Austin, Texas Hospital Association, January, 1980.
APPENDIX A

PERMISSION LETTER FOR USE OF THE PINES AND ARONSON TEDIUM-BURNOUT DIAGNOSIS
Dr. Ayala Pines, Ph.D.
Psychology Department
University of California
Berkeley
California 94720

Dear Dr. Pines:

I find the work that you and your associates have been doing very interesting. The subject of burnout adds a new dimension to understanding health care professionals. I would like your permission to use the Pines & Aronson Tedium-Burnout Self-Diagnosis for a study that I am involved in. Thanking you for this consideration, I wish you continued success in your work.

Sincerely,

[Signature]

Don Louis

Dear Don,

You have my permission to use the scale on the condition that you acknowledge the copyright Pines & Aronson 1981, and share with us your findings.

Good luck

[Signature]
PART ONE OF THE SURVEY INSTRUMENT: THE PINES AND ARONSON TEDIUM-BURNOUT DIAGNOSIS
Instructions: Using the following scale, how often have you experienced the following in the past several months?

<table>
<thead>
<tr>
<th>SCALE:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Never</td>
<td>Once/Twice</td>
<td>Rarely</td>
<td>Sometimes</td>
<td>Often</td>
<td>Usually</td>
<td>Always</td>
<td></td>
</tr>
</tbody>
</table>

_____ 1. Being tired
_____ 2. Feeling depressed
_____ 3. Having a good day
_____ 4. Being physically exhausted
_____ 5. Being emotionally exhausted
_____ 6. Being happy
_____ 7. Being "wiped out"
_____ 8. Enjoying and accepting new challenges
_____ 9. Feeling "burned out"
_____ 10. Being unhappy
_____ 11. Feeling rundown
_____ 12. Feeling trapped

_____ 13. Feeling worthless
_____ 14. Being weary
_____ 15. Being troubled
_____ 16. Feeling disillusioned and resentful about people
_____ 17. Feeling weak and helpless
_____ 18. Feeling hopeless
_____ 19. Feeling rejected
_____ 20. Feeling optimistic
_____ 21. Feeling energetic
_____ 22. Feeling anxious
_____ 23. A positive feeling of being accepted.
APPENDIX C

PART TWO OF THE SURVEY INSTRUMENT: DEMOGRAPHIC QUESTIONNAIRE
Demographic Information Questionnaire

Please respond to the following statements.

1. Year of birth: ____.

2. Your basic nursing program was
   ___ Diploma.
   ___ Associate degree.
   ___ Baccalaureate degree.

3. Number of years since graduation from basic nursing program:
   ___ Less than six months.
   ___ Six months to one year.
   ___ One year to two years.
   ___ Two years to five years.
   ___ Five years to ten years.
   ___ Over ten years.

4. Number of years actively involved in nursing practice:
   ___ Less than six months.
   ___ Six months to one year.
   ___ One year to two years.
   ___ Two years to five years.
   ___ Five years to ten years.
   ___ Over ten years.

5. Present employment status:
   ___ Unemployed and not looking for work.
   ___ Unemployed and looking for non-nursing work.
   ___ Unemployed and looking for nursing work.
   ___ Employed part-time but not in nursing.
   ___ Employed full-time but not in nursing.
5. Present employment status (continued):
   _____ Employed in nursing part-time (less than 40 hours per week).
   _____ Employed in nursing full time (40 hours or more per week)

6. Parents' income level during your nursing education period:
   _____ Lower.
   _____ Lower-middle.
   _____ Middle.
   _____ Upper-middle.
   _____ Upper.

7. If employed in nursing, do you desire additional in-service programs?
   _____ No.
   _____ Yes.

8. If not active in nursing work, would additional in-service programs influence your decision to return to active duty?
   _____ No.
   _____ Yes.

9. If employed in nursing, please give your approximate annual salary before deductions:
   _____ Less than $11,999.
   _____ $12,000 to $13,999.
   _____ $14,000 to $15,999.
   _____ $16,000 to $17,999.
   _____ $18,000 to $19,999.
   _____ $20,000 to $21,999.
   _____ $22,000 to $23,999.
   _____ $24,000 to $25,999.
   _____ Over $26,000.
10. If not active in nursing, how strongly do you want to reenter active nursing?

- Not at all.
- Would consider.
- Most definitely.

11. Highest position held as a registered nurse:

- Staff nurse.
- Clinical specialty.
- Charge nurse.
- Director of nursing.
- Administrative.

12. Type of facility where employed:

- Physician's office.
- Clinic.
- Nursing home.
- Hospital.
- Nurse educational institution.

13. If employed in a nursing home or hospital, what is its size?

- Less than 50 beds.
- 50 to 100 beds.
- 100 to 200 beds.
- Over 200 beds.
APPENDIX D

COVERING LETTER FOR THE SURVEY INSTRUMENT
June 10, 1983

Dear Registered Nurse:

As a doctoral candidate at North Texas State University under the direction of Dr. L. Fred Thomas, I became interested in varying degrees of "burnout" as experienced by registered nurses. Your name has been drawn in a random sample from the Roster of Registered Nurses in Texas. Please take five minutes to complete this questionnaire. The enclosed instrument and the demographic inquiry is structured in such a manner as to facilitate your response, as there are only 36 responses needed.

You do not need to sign your name anywhere, neither do you in any way have to indicate your identity. Your contribution can help formulate essential guidelines by which to further understand burnout as experienced by registered nurses in Texas.

Please complete the personal data sheet and the instrument as soon as possible and return in the enclosed stamped envelope. If you would like a copy of the results of this study, inquire at a later date. Thank you for your kind assistance and contribution to this study.

Sincerely,

Don Louis
411 Ponder #210
Denton, Texas 76201

Enc.

As chairman of the doctoral advisory committee for Don Louis, I believe he has a significant study and encourage your participation.

Thank you in advance for your cooperation.

Professionally,

L. Fred Thomas
Professor
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