ROLE STRESS:
A DESCRIPTIVE STUDY OF THE TYPES, DIMENSIONS, AND MANAGEMENT
OF ROLE STRESS IN MASTER'S OF SCIENCE IN NURSING STUDENTS

by

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We accept this thesis as conforming
to the required standing

THE UNIVERSITY OF BRITISH COLUMBIA
August, 1981

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Date  Sept. 21, 1981
ABSTRACT

ROLE STRESS:
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OF ROLE STRESS IN MASTER'S OF SCIENCE IN NURSING STUDENTS

This descriptive study was designed to elicit information about common types, dimensions, and management of role stress in Master's of Science in Nursing students.

A semi-structured, standardized interview guide was developed by the researcher for this purpose. It was utilized with 15 respondents drawn from the population of Master's of Science in Nursing students enrolled at The University of British Columbia between 1974 and 1979. Eight of the participants were graduates of the Master's of Science in Nursing program and seven were withdrawals or transfers from the program. The data collected were summarized and categorized by the process of content analysis and descriptive statistics were applied.

The results of this study suggest that most students found the Master's of Science in Nursing program stressful. The greatest source of stress recalled by both groups was difficulty in meeting multiple obligations to other people within the time available. The group who terminated with the program remembered experiencing greater difficulty in this area, than the group who graduated. The group of participants who withdrew or transferred from the Master's program also experienced greater conflict with faculty, in terms of their values and attitudes as graduate nursing students, than did those participants who graduated from the
Master's program. Probable factors related to attrition appear to be the adequacy of supportive resources such as faculty and fellow students, the heavy workload of studies concurrent with other commitments, and financial pressures.

Both groups of participants favoured the use of problem-solving for stress management. Athletic activity, open negotiation with others about difficulties in meeting obligations, and curtailment in the number of obligations to others were also widely used by both groups of participants.

Further research is required to validate these findings and add to knowledge regarding stress and its management by graduate students.
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CHAPTER 1

INTRODUCTION

Problem Area

Nursing is endeavoring to meet the increasing and constantly changing demands which have been created by rapid changes in science and the health care delivery system. In order to do so, specialization has become a necessity. Specialization requires advanced study, often over an extended period of time. Despite this constraint, the need for specialists is becoming increasingly recognized by nurses.

In Master's of Science in Nursing programs across Canada, only fifty-six students were enrolled in 1967 (Statistics Canada, 1978). By 1979, the number of nurses seeking Master's of Science in Nursing degrees had risen to 287, a five-fold increase (Canadian Association of University Schools of Nursing, 1980). How many will actually achieve a Master's of Science in Nursing degree? Table 1 presents national figures, from the six universities offering the degree, comparing the number of graduations from Master's of Science in Nursing programs, to the number of enrollments (Canadian Association of University Schools of Nursing, 1979, 1980; Statistics Canada, 1978; with questionnaires, 1981).

The programs are of varying lengths (one to two years) and many students elect to enroll part-time taking longer to complete their
2.

**TABLE 1**

Number of enrollments and Graduations in Master's of Nursing Programs Across Canada

<table>
<thead>
<tr>
<th>YEAR</th>
<th>NUMBER OF ENROLLMENTS</th>
<th>NUMBER OF GRADUATIONS</th>
<th>NUMBER OF GRADUATIONS</th>
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<tbody>
<tr>
<td>1972</td>
<td>159</td>
<td>45</td>
<td>.28</td>
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<td>1973</td>
<td>172</td>
<td>49</td>
<td>.28</td>
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<td>1974</td>
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<td>53</td>
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<td>1975</td>
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<td>1976</td>
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<td>1977</td>
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<td>1979</td>
<td>287</td>
<td>86</td>
<td>.30</td>
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studies (a maximum of five years). Therefore, the figures in Table 1 cannot be used to ascertain the number of withdrawals from the program. Nevertheless, there is a low ratio of the numbers graduated to the number enrolled for any given year. Of particular interest, is that despite an almost steadily increasing enrollment over eight years (1977 being the exception), the proportion of the number graduated to the number enrolled has remained fairly constant (from a low of .22 to a high of .30). What accounts for such significant attrition?

**Significance of the Problem**

Many studies have focussed on the high attrition rates found
in registered nurse and baccalaureate programs (Hill, Taylor and Stacy, 1963; Hutcheson, Garland, and Lowe, 1979; Knopke, 1979; Wilson and Levy, 1978; Wittmeyer, 1971). The focus of these studies has been the students who withdrew from the various programs. Academic ability, demographic statistics, personality traits, and attitudes are among the variables which have been considered, with the goal of determining whether or not these factors can be used to predict success or failure. The findings are conflicting. Hill and others (1963) found no relationship between personality and withdrawal from nursing education, whereas Wilson and Levy (1978) defined three types of people prone to withdrawal, all based on the interaction of self-image, values, and capabilities. Wittmeyer (1971) concurs that personality variables are as significant as academic performance in predicting success.

To date, there exists very little literature on Master's of Science in Nursing students. Sime (1978) concluded that a nursing undergraduate's grade-point average was a valid predictor of success in a Master's of Science in Nursing program. Camooso, Greene, and Reilly (1981) examined the adaptation of Master's of Science in Nursing students based on their personal experiences. They concluded that graduate education is a stressful event for all students. This is supported by the studies of Elfert (1976) and MacMaster (1979), who examined sources of stress in undergraduate nursing programs. Greensbauer and Mizner (1980) studied stresses in medical education, based on a developmental task framework. Mechanic (1962) observed the adaptation of Doctoral students to the stress of preparing for major examinations.
The present study examines the stress experienced by two samples of Master's of Science in Nursing students: those who withdrew from the program and those who remained, completing their degrees. Do both groups perceive the stresses of graduate school in the same manner? Do they react differently to the same situation? What resources do they use to facilitate their adjustment?

This study will explore these general questions, using role theory as a theoretical framework. Role theory offers an interactional model by which the researcher can explore the nature of stress in Master's of Science in Nursing students. Role theory focusses not on individuals in isolation, but on how an individual functions in a given social position within a given social structure. Psychological stress may be viewed as emanating from the demands of the social structure (the School of Nursing), from deficits within the individual (the Master's of Science in Nursing student) or from the interaction of these.

Purpose of the Study

The purposes of this retrospective study are twofold.
(1) to ascertain if two samples of Master's of Science in Nursing students experienced different amounts and types of role stress. The two samples are:
(a) Master's of Science in Nursing students who graduated from the program,
(b) Master's of Science in Nursing students who withdrew from the program.
(2) to identify what methods were used to manage role stress in the two samples.

Potential Significance of the Study

It is hoped that the information described in this study will further the understanding of Master's of Science in Nursing students and Master's of Science in Nursing faculty as to common sources of stress for Master's of Science in Nursing students. It is further hoped that such information will provide guidance to future Master's of Science in Nursing candidates as to the ubiquitousness of stress and its management.

Definition of Terms

role - The expectations of Nursing faculty and other university personnel which apply to the Master's of Science in Nursing student. These are stable expectations which persist regardless of variation among individual students.

role stress - External pressures, demands, or expectations placed upon the Master's of Science in Nursing student.

role ambiguity - A type of role stress which occurs when the Master's of Science in Nursing student perceives that the expectations of faculty are vague or poorly defined.

role incongruity - A type of role stress which occurs when the Master's of Science in Nursing student perceives that her values or attitudes, concerning her performance as a student, conflict with those of faculty.
role inadequacy - A type of role stress which occurs when the Master's of Science in Nursing student feels inadequate to meet the expectations surrounding her performance as a student.

role overqualification - A type of role stress which occurs when the Master's of Science in Nursing student feels overqualified for the demands required of her as a student.

role conflict - A type of role stress which occurs when the Master's of Science in Nursing student feels she cannot meet the conflicting or competing expectations of others.

role overload - A type of role stress which occurs when the Master's of Science in Nursing student feels unable to fulfill all her commitments to others in the available time period.

role accumulation - A type of role stress which includes both role conflict and role overload. It occurs when the Master's of Science in Nursing student has multiple obligations to others, apart from those required of her as a student.

role strain - The internal response of the Master's of Science in Nursing student to role stress; may be experienced as tension, anxiety, or frustration.

manage - To effectively decrease the subjective state of distress (role strain) experienced by the Master's of Science in Nursing student.

role transition - A process of socialization in which the Master's of
Science in Nursing student understands and acquires the requisite values, attitudes, and skills for the role of graduate student.

problem solving - A method of stress management in which the Master's of Science in Nursing student appraises the situation, identifying the available actions and possible consequences. On the basis of this appraisal, she acts and then evaluates her action.

role reduction - A method of stress management, in which the Master's of Science in Nursing student reduces the number of her commitments to others.

role extension - A method of stress management in which the Master's of Science in Nursing student increases the number of her commitments to others.

role bargaining - A method of stress management in which the Master's of Science in Nursing student negotiates openly with another about her expected performance in the relationship.

physical activity - A method of stress management which refers to any form of sport or recreation which uses large muscle activity.

resources - People in the Master's of Science in Nursing student's environment who facilitate her adjustment to the graduate student role.
Limitations

1) Since the study is retrospective, the researcher is dependent upon the respondents' perceptions of past events which may be distorted by memory or lack of truthfulness.

2) Due to the small size and nature of the sample, generalizability is extremely limited.
CHAPTER 2

THEORETICAL FRAMEWORK

The purpose of this chapter is to describe the present state of knowledge about role stress and its management. The theories of role stress and role strain provide the framework for this study. These theories will be supported by literature on the unique nature of psychological stress and stress management. The theoretical proposition that will be investigated is that Master's of Science in Nursing students who complete their degrees, experience less role stress, or are able to manage role stress more effectively, than Master's of Science in Nursing students who do not finish the program.

Influences on Individual Variation in Stress Perception

General agreement exists among a number of researchers that what is stressful for one person is not so for another (Hardy, 1978; Lazarus, 1977; Selye, 1974). Yet, reflecting on the literature of mastery and self-actualization, it is noted that an individual does not attempt to eliminate all tension from her life and may actively seek an optimal level. Maslow (1954) emphasized that a self-actualizing person works very hard, but derives much pleasure and excitement from his commitment. Similarly, Allport (1955) theorized that the normal, healthy adult is motivated to increase her degree of competence and mastery.
There exist an abundance of factors which influence the kind of stress a person perceives, the amount of strain associated with that particular stress, and the choice of response to that same stress. Three major reasons for individual variation regarding role stress are differences in personality, in the adequacy of socialization, and in a supportive resource network (Hardy, 1978).

**Personality Differences**

Selye (1974) has noted that each individual has an optimal stress level. Below this level, life is a bore; exceeding this level, social disruption and eventual disintegration become inevitable. This is supported by the work of Appley and Trumbell (1977) who believe that an individual's vulnerability to stress, is dependent upon the significance of the event to her. Thus, the achievement of a Master's of Science in Nursing degree may be seen as crucial by the student, who desperately wants to excel in her career.

The past history of the individual is viewed by crisis theorists as influencing the way in which one views the present (Aguilera and Messick, 1978; Caplan, 1964). If an individual has had a positive, fulfilling experience in the past, she will likely cope successfully with a situation of a similar nature in the present. Conversely, the present situation may stimulate memories of old failures which act as additional burdens on present functioning (Caplan, 1964). Janis (1962) has noted that the power to exert some control over danger, reduces some of the anxiety surrounding it. Epstein (1965) made comparable findings.
Other authors emphasize different personality traits which affect an individual's perception of stress. For example, Kahn (1964) in a study of industrial managers, found that introverts experienced more role strain than extroverts and that people classified as flexible experienced greater tension than those classified as rigid. Johnson and Stinson (1975) have reported that individuals who are high in need of achievement and high in need for independence, experienced greater tension when they perceived their task as ambiguous.

**Role Transition**

Hardy (1978) has noted that socialization into a new role is a complex process, involving the acquisition of new attitudes and skills. As Master's of Science in Nursing students, Camooso and others (1981) found that their anxiety increased during the first few weeks in the program due to the multitude of unfamiliar people and expectations. Similar findings are well documented by others (Hamburg and Adams, 1967; Martin and Katz, 1961; Coleho, Murphey, Hamburg, Pearlin, Rosenberg, and Bethesda, 1961). Transition into new roles is less associated with role strain if adequate socialization has been provided. Camooso, Green and Reilly (1981) emphasized that feedback from colleagues and faculty plus their own motivation, were crucial factors in their adaptation to school.

**Resource Networks**

Crisis theorists have long recognized the value of situational supports (family, friends, professionals) in allaying an individual's anxiety and aiding his adaptation to a situation (Aguilera and Messick,
1978; Caplan, 1964). Hamburg and Adams (1967) emphasized the value of supportive peers in adapting to the rigors of college life. The findings of Camosso and others (1981) confirm the importance of support from peers and teachers in decreasing the anxiety associated with being a Master's of Nursing student. Hardy (1978) stated that individuals who occupy similar positions may experience different degrees of strain if their resources are dissimilar. The researcher proposes that for the Master's of Science in Nursing student there exist four groups of people who may serve as resources. The purpose of these resources is to aid the adjustment of the student to the student role. These include family members, friends and colleagues, fellow students, and faculty members.

Role Stress

Role, as Sarbin (1968) has noted, is a term borrowed directly from the theatre. It denotes the conduct which adheres to certain positions, regardless of the players who fill those positions. The object of the present study, as guided by role concepts, was, how does an individual Master's of Science in Nursing student function in her role as a graduate student? Does she do well or badly? How does she cope with all the obligations of being a student? What are the external pressures and demands placed upon a Master's of Science in Nursing student? How does the individual student perceive such pressures and demands? How does she cope with the internal response of anxiety and tension that such demands may evoke in her?

Hardy (1978) uses a stress-strain analogy in her thesis on role stress and role strain. Stress in the external state that disrupts the
stability of the system; strain is the resulting internal disturbance; (for further details refer to Definition of Terms). Goode (1960) observes that both role stress and role strain are ubiquitous in nature. Hardy (1978) concurs with Goode's (1960) theory that role stress and role strain are a normal part of everyone's existence. Furthermore, Hardy (1978) maintains that the levels of stress and strain are increasing due to inadequate socialization, rapid changes in organizations, and accelerated technology. Hardy (1978) argues that as role stress increases, role strain is generated which may prevent the achievement of goals and may disrupt social interaction. Hardy outlines six major areas leading to role problems: role ambiguity, role incongruity, role inadequacy, role over-qualification, role conflict, and role overload. These six categories formed the framework for this study.

**Role Ambiguity**

Role ambiguity may occur when the expectations or norms relevant to a social position are vague or ill-defined. A study by Smith (1957) tested the hypothesis that unclear role expectations are detrimental to the functioning of a group. The results showed that vague role expectations interfered with the effectiveness of problem-solving and reduced the participants' satisfaction. Arndt and Laegar (1970) examined the causes of role strain in Directors of Nursing and found that role ambiguity ranked high in the creation of tension for the subjects. Many other studies have obtained significant relationships between role ambiguity and lower job performance (Greene and Organ, 1973; Johnson and Graen, 1973; Lyons, 1971).
For the Master's of Science in Nursing student, many of the expectations are distinctly stated in the University calendar. These include acceptable grades, deadlines for course work, and procedures for course changes. Nevertheless, some expectations regarding the student's performance may be vague or remain totally unverbalized as studies of role ambiguity suggest the situation is prevalent in many different social positions (Hardy, 1978).

**Role Incongruity**

The second role stress mentioned by Hardy (1978) is role incongruity. This exists when expectations regarding role performance conflict with personal values, attitudes, or needs. Martin and Katz (1961) found evidence of high role incongruity in undergraduate university nursing students enrolled in all four years of the program. This phenomenon was interpreted as a natural function, but nevertheless a stressful one, of the socialization process. Via socialization, the young novice is expected to take on the values of the profession and, in so doing, alter or shed entirely some of her own.

Arndt and Laegar (1970) in their study of nursing directors found role incongruity to be a major source of role strain for their respondents. "Feeling that you have to do things on the job that are against your better judgement" was a source of concern for 72 percent (34/47) of the subjects (Arndt and Laegar, 1970, p.497).

**Role Inadequacy and Role Over-qualification**

Two types of role stress that have received minimal attention
in the literature, according to Hardy (1978) are role inadequacy and role overqualification. Role inadequacy occurs when an individual feels her resources and skills are inadequate to meet the demands of the job. This stress was felt by 83 percent (39/47) of the nursing directors studied by Arndt and Laegar (1970).

The converse of role inadequacy, role overqualification exists whenever an individual feels that she has resources in excess of those required for the position. Hardy (1978) suggests that role overqualification will become increasingly significant as an individual's knowledge in her field is widening, due to interdisciplinary approaches to health care.

**Role Conflict and Role Overload**

Role conflict and role overload are very similar. Role conflict is a condition in which existing role expectations are competing or mutually exclusive. Role overload exists when an individual is confronted with excessive demands in the time available to her. While similar, these two role dilemmas are different from each other in that role conflict involves constraints imposed by the discrepant expectations of others and role overload refers to those limitations imposed by time. Since they often occur simultaneously, they will be subsumed under the umbrella of role accumulation. The concept of role accumulation suggests that an individual is involved in multiple relationships with diverse partners, that is, has many roles. Seiber (1974) suggests that the more roles a person accumulates, the greater the likelihood of running out of time to fulfill all her obligations to others (role overload) and the
and the larger the likelihood of confronting role partners whose expectations are contradictory (role conflict). Although the researcher recognizes that wide variation exists in the ages of Master's of Science in Nursing students, they are all adults who have accumulated multiple responsibilities to others: friends, families, employers, and the community. Many authors have demonstrated that role strain increases as relationships with others become more numerous and diverse (Greene and Organ, 1973; Johnson and Graen, 1973; Snoek, 1966; Whyte, 1946). One may well ask why an adult student would attempt to combine such diverse roles as parent, wife, community worker, student, and employee, deliberately adding tension and frustration to her life. Two possibilities should be considered; discounting the notion held by some that all adult students who attempt to perform in multiple relationships are suffering from dysfunctional cerebration. One possibility is that the rewards of multiple relationships outweigh the costs. The second possibility is that multiple roles can serve as very practical social buffers.

Seiber (1974) in a theory on the benefits of role accumulation, enumerates a number of rewards for individuals with a diversity of relationships. These include such gratifying results as personality enrichment, increased privileges, and improved status security (the individual can compensate for failure in one sphere by falling back on other relationships) (Seiber, 1974). Multiple roles can also serve as social buffers. For example, a student may exaggerate the demands of her studies as an excuse for not fulfilling family obligations. Or she may justify an absence from class as necessary to fulfill familial duties. Precisely because adult students are viewed as occupying a time-consuming
number of roles, this kind of behaviour is often permitted (Seiber, 1974). Such social supports as admiration and respect are often extended to the person with numerous responsibilities, whereas her counterpart is deemed narrow and limited and may even be the subject of ridicule. Sarbin (1968) has noted that the absence of a large role repertoire is associated with poor mental health.

From this focussed literature review, it is evident that role stress is thought to have both positive and negative consequences, and the infinite variation among people's perception of stress have been considered. Finally, various responses to stress will be discussed.

Stress Management

Hardy (1978) has noted that as role strain increases, productivity will likely decrease. The researcher proposes that the successful Master's of Science in Nursing student is not totally incapacitated by role strain. At the very minimum, she has been able to complete the requirements for her degree. Therefore, there must exist identifiable mechanisms by which she manages the role strain which accompanies her role as graduate student.

Several investigators have proposed that activity of any kind - motor or mental - is essential for coping effectively with a stressful situation (Gal and Lazarus, 1975; Grinker and Spiegel, 1945; Vistosky, Hamburg, Goss, and Lebovits, 1961). Other authors have emphasized the importance of adequate anticipatory preparation in allowing an individual a sense of control and mastery over circumstances (Hamburg and Adams, 1967;
Janis, 1962; Mechanic, 1962). Five different kinds of stress management will be reviewed; all of which may be used in preparing for the stress of graduate school or as a response to stress while enrolled. These modes may be used singly or in combination. These methods include three suggested by Goode (1960): role reduction, role extension, and role bargaining. Hardy (1978) concurs with these and advances one more, which is corroborated by Caplan (1964): problem solving. A fifth type has been added on the basis of the experience of the researcher and her colleagues: physical activity.

Problem Solving

Problem solving involves purposeful activity directed towards the solution of a problem. Wrightsman (1979) suggests that in order to cope effectively with a situation which requires adjustment, it is first necessary to recognize and understand the various aspects involved in the situation. This represents the essential primary stage of problem-solving: the appraisal. Crisis theorists maintain that this will only occur if the immediate source of anxiety is interpreted as a challenge by the individual (Aguilera and Messick, 1978; Rapoport, 1962; Caplan, 1964). Hardy (1979) notes that the problem-solving process may progress in part, or entirely at an unconscious level. That is, one can appraise a situation and evaluate the consequences of possible alternatives without fully being aware that one is searching for a solution. This corresponds with the writings of crisis theorists who maintain that if a person has used a method of coping in the past which has been repeatedly successful, the method becomes habitual with the user (Aguilera and Messick, 1978;
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Caplan, 1964). Past experience then in part, determines the choice of action in a new situation. Aguilera and Messick (1978) note that depending upon past experience related to the immediate problem, some people are more adept at finding solutions than others. From subsequent information or feedback, the individuals then evaluates her action, assessing the appropriateness and favourability of her behaviour (Hardy, 1978).

Role Reduction

Goode (1960) in his theory of role strain, cites role reduction as the most obvious means by which a person can alleviate tension. By definition, role strain occurs in response to role stress. If the number of roles are reduced, the stress is similarly diminished. In managing role strain which has occurred due to role accumulation, role reduction may be the favoured choice. Both Goode (1960) and Hardy (1979) acknowledge that some positions in life can be abandoned more easily than others. For example, the roles of parent and wage earner are relatively obligatory roles (Hardy, 1978). Some roles are more crucial to an individual's self-image than others and if curtailed may damage her self-esteem. A person wishing to excel in a particular career may direct more energy toward career goals than towards family-related events (Hardy, 1978).

Role Extension

By increasing the number of commitments to others, an individual is then able to offer these as an excuse for not fulfilling
other obligations (Goode, 1960). Seiber (1974) notes that adult students are often permitted ample latitude for precisely the reason that they are viewed as coping with multiple demands. However, the use of this method seems severely limited as an individual cannot indefinitely expand her role system. At some finite point, the strain of multiple obligations will outweigh the privileges.

Another perspective on role extension which should be noted is that it may be used as a diversionary tactic. Chodoff, Friedman and Hamburg (1964) found that parents of leukemic children reduced their anxiety by knitting, sewing, and taking long walks. The idea that unrelated activity can have a relaxing effect is further supported by the findings of Gal and Lazarus (1975).

**Role Bargaining**

Role bargaining is a useful strategy for the individual who feels she can communicate openly with others about her expected performance in a relationship. In this manner, she can define what will be expected of her and limit or reduce her obligations, thereby reducing any accompanying strain. Since it is a process of negotiation with another, an individual feels freer to bargain in those relationships in which the balance of power is equitable. Rubin and Brown (1975) found that in conditions of unequal power, there exists a tendency to exploit the less powerful bargainer. These same authors, Rubin and Brown (1975) in summarizing studies in this field, suggest that abstract thinkers are more co-operative in bargaining situations than concrete thinkers and that persons with a high need to achieve tend to behave more competitively than those with a high need for affiliation.
Physical Activity

Gal and Lazarus (1975), in their examination of the role of activity in stressful situations, note that people exhibit excitation of the sympathetic nervous system when under stress, regardless of whether they are actually able to 'take flight or fight.' Norms and obligations may preclude such direct action, therefore a means of releasing the tension which accompanies mobilization must be found. Strenuous physical activity offers the body an opportunity to discharge its energy, reducing paralyzing tension and anxiety. Sarbin (1968) refers to physical activity as a 'releaser' which can momentarily attenuate role strain. This is corroborated by Selye (1974) who has concluded that stress in the musculo-skeletal system causes relaxation of stress on the central nervous system.

In summary, six types of role stress which have been identified in the literature have been reviewed. These include role ambiguity, role incongruity, role inadequacy, role overqualification, role conflict, and role overload. It is assumed that these stresses produce various degrees of role strain in an individual, depending upon the person's unique perception and response to stress. Three major reasons for variation in an individual's perception and response to stress in a new role have been cited: personality differences, the adequacy of the socialization process, and the presence or absence of a supportive resources network. Five different methods of stress management have been reviewed, encompassing three strategies derived from role theory: role reduction, role extension, and role bargaining; one method emphasized in
crisis theory: problem solving, and finally, one mode suggested by the author's personal experience: physical activity.
CHAPTER 3

METHODOLOGY

This study was conducted in order to ascertain if two samples of Master's of Science in Nursing students, drawn from the population of Master's of Science in Nursing students enrolled at The University of British Columbia during the years 1974 to 1979, experienced different amounts and kinds of role stress. The methods used by each sample to cope with role stress were also examined.

Due to the dearth of literature on Master's students' perceptions and responses to stress, an exploratory, descriptive research design was selected. This chapter describes four aspects of the methodology of this study: tool development, sample selection, data collection, and data analysis.

Tool Development

A semi-structured, standardized interview guide was designed specifically for this study. The guide includes open-ended questions and fixed-alternative questions (see Appendix B). The closed questions and scales were designed to ensure comparable data and the open-ended ones were included to allow flexibility and depth in the respondents' answers (Kerlinger, 1973). The interview schedule sought information about four areas of the respondents' lives while enrolled as Master's of Science in Nursing students at The University of British Columbia.
Part 1 of the interview guide was primarily designed to provide demographic data about the students and the amount of role accumulation which they experienced. It also provided information on a possible concurrent stress for those students who were totally unfamiliar with The University of British Columbia and/or Vancouver. Sarbin (1968) has noted that role transition is less stressful in familiar surroundings.

Part 2 (Exhibit A) was included to identify types and amounts of role stress which the respondents experienced as Master's of Science in Nursing students. The researcher utilized definitions from the literature for each of the six role stresses studied and clarified these with specific examples based on her review of the literature and observation of her own and her colleagues' experiences as Master's students.

The function of Part 2 (Exhibit B) was to identify the frequency with which five different types of stress management were used. The methods of stress management which were selected were obtained by a process similar to that used for Part 2 (Exhibit A).

Part 2 (Question 4) aimed at discovering the students' perceptions of available resources in their environment. Finally, Part 2 (Question 5) was included to discover any feelings about the stress of graduate school which the respondent had not previously mentioned.

The interview schedule was examined by thesis committee members and an experimental psychologist. Minor revisions were made and the tool was pilot-tested on three volunteers: two were colleagues of the researcher,
one a faculty member. The pilot tests were done in an effort to familiarize the researcher with the interview schedule and to help ensure the tool's reliability and content validity. Some minor adjustments in wording were then completed.

Sample Selection

Two criteria of eligibility were considered of importance in selecting the two samples from the Master's of Science in Nursing students enrolled at The University of British Columbia from 1974 to 1979. By not including students enrolled in 1980 and 1981, the researcher avoided interviewing her peers, which it was felt might have influenced her objectivity. Secondly, it was essential that the respondents reside within two hours commuting distance of Vancouver, since face-to-face interviews were desirable due to the nature of the data.

Graduate Sample

Between 1974 and 1979, there were 65 graduates from the Master's of Science in Nursing program at The University of British Columbia. Of this number, 41 were believed to be residing in the lower mainland areas as shown by a file search for their latest known addresses. Thirty-four of these graduates were employed in the community, seven were members of the faculty of the School of Nursing, The University of British Columbia. Since a possible bias, for which the researcher did not know the extent or direction, may have existed among the faculty, it was decided to divide the graduates into two sub-groups: community and UBC Faculty. Four of each group were desired to form a total sample size of eight graduates.
Letters of consent (see Appendix A) were sent to five University of British Columbia School of Nursing Faculty, randomly chosen from the seven in the population. Four of these letters were signed and returned to the researcher. Consenting faculty were subsequently interviewed.

A total of 13 letters of consent were mailed to Master's of Science in Nursing graduates employed in the community. The 13 names were randomly drawn from the population of 34. Eight letters of consent were signed and returned to the researcher; the first four received were later interviewed. Three letters were returned 'address unknown', and two were not returned at all.

**Non-Graduate Sample**

A total of 29 people had withdrawn or transferred from the Master's of Science in Nursing program between 1974 and 1979. Of these, a file search showed 18 as residing within the boundaries of this study. A sample size of eight non-graduates was desired.

A total of 18 letters explaining the study and requesting participation were mailed to the non-graduate group. When no answers had been received in two weeks, a second mailing occurred. This second mailing brought no useful results: five letters were returned stamped 'address unknown'. The researcher, with the approval of her committee, telephoned the remaining 13 people to inquire whether or not they had received her letters. Of the 11 the researcher was able to reach by telephone, seven consented and subsequently signed letters of consent and
were interviewed. Three people refused, stating that they did not wish to discuss a negative experience; one consented and later withdrew, and two proved impossible to locate. Therefore, the sample of seven non-graduates which was attained was one short of the desired number.

Data Collection

The interview guide was used in a standardized manner with all 15 respondents. All the interviews were tape-recorded and the recordings transcribed verbatim.

The interviews ranged in length from 30 to 90 minutes and were conducted at a place and time convenient to the respondents. Nine interviews were conducted in the offices of the respondents which were located in Vancouver, Surrey, White Rock, Delta and Langley. Three were held in the homes of the respondents and the remaining three were conducted in the home of the researcher. Internal validity was enhanced by consistent use of the standardized interview guide by the researcher.

Data Analysis

The transcribed data from each interview was organized into five categories: individual variation in stress perception, role stresses, concurrent stresses, stress management methods, and resource networks. All findings were summarized and tabulated by the technique of content analysis which aims at describing communication objectively, systematically, and quantitatively (Berelson, 1952). Descriptive statistics such as frequency distributions and measures of variation were also applied to the data. The findings from this analysis are presented in Chapter 4.
CHAPTER 4

RESULTS

The findings of this study are presented in six sections. The first section provides a description of the two samples, noting similarities and differences between the samples at the time of enrollment in the Master's of Science in Nursing program. The second section describes individual variation in the respondents' perception of stress. The third section reports the role stresses experienced by the subjects. The fourth division relates concurrent stresses. The fifth section deals with methods of stress management. Finally, the sixth section examines the resource networks of the students.

The results are presented as both percentages and proportions for ease of interpretation. However, the reader is cautioned to interpret the findings with care as the total size of the two samples is small: 15 subjects.

Description of the Samples

For the purposes of clarity in reporting the findings, the researcher will refer to two samples: a graduate group and a non-graduate group. The graduate group consists of eight respondents; four of whom are employed at The University of British Columbia as faculty and four of whom work elsewhere in the community. Since no major differences were
found between these two sub-groups, they will be considered as one: a sample or group of graduates.

The non-graduate group consists of seven respondents; three who withdrew from the program and four who transferred into another field of graduate studies. As with the graduate group, no major differences were noted so that these subjects will be referred to as one: a sample or group of non-graduates.

All fifteen respondents were female, ranging in age from 27 years to 56 years at the time of the study. In a number of ways, the graduate and non-graduate groups were similar at the time of their enrollment in the Master's of Science in Nursing program at The University of British Columbia. These similarities include age, year of baccalaureate graduation, and length of residence in Vancouver. The two groups differed along several parameters which are: location of baccalaureate education, student status in the Master's of Science in Nursing program, length of time enrolled in the program, and simultaneous roles.

**Age**

At the time of enrollment, the ages of the respondents ranged from 22 to 45 years in the graduate group and from 24 to 39 years in the non-graduate group. The mean age at the time of enrollment for graduates was 32.9 years and for non-graduates 33 years. These figures are presented in Table 3 with the dates of enrollment and graduation or termination from the Master's of Science in Nursing program.
**Year of Baccalaureate Graduation**

The figures in Table 2 present the university and year of baccalaureate graduation for both graduate and non-graduate respondents. The year of graduation of the graduates ranges from 1960 to 1975. The year of graduation for non-graduates spans the years 1960 to 1976.

---

**TABLE 2**

**UNIVERSITY AND YEAR OF BACCALAUREATE GRADUATION OF RESPONDENTS**

<table>
<thead>
<tr>
<th>GRADUATES</th>
<th></th>
<th>NON-GRADUATES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject number</td>
<td>University of Baccalaureate of Graduation</td>
<td>Year of Graduation</td>
<td>Subject number</td>
</tr>
<tr>
<td>1</td>
<td>Western Ontario</td>
<td>1960</td>
<td>9</td>
</tr>
<tr>
<td>2</td>
<td>British Columbia</td>
<td>1975</td>
<td>10</td>
</tr>
<tr>
<td>3</td>
<td>Ottawa</td>
<td>1975</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>British Columbia</td>
<td>1968</td>
<td>12</td>
</tr>
<tr>
<td>5</td>
<td>British Columbia</td>
<td>1966</td>
<td>13</td>
</tr>
<tr>
<td>6</td>
<td>Maryland</td>
<td>1969</td>
<td>14</td>
</tr>
<tr>
<td>7</td>
<td>McGill</td>
<td>1963</td>
<td>15</td>
</tr>
<tr>
<td>8</td>
<td>McGill</td>
<td>1970</td>
<td></td>
</tr>
</tbody>
</table>

**Length of Residence in Vancouver**

Of the graduate group, 25 percent (2/8) had lived in Vancouver
for less than six months prior to enrollment, as had 28 percent (2/7) of the non-graduate group. Fifty percent (4/8) of the graduates had resided in Vancouver longer than 10 years and 57 percent (4/7) of the non-graduates had done so as well.

Familiarity with The University of British Columbia

By referring to Table 2, it is evident that more of the non-graduate group were familiar with The University of British Columbia, than those in the graduate group. Of the non-graduates, 71.4 percent (5/7) had graduated from The University of British Columbia earlier with their Bachelor of Science in Nursing degrees. Only 37.5 percent (3/8) of the graduate group had done so.

Student Status

Within the graduate group, 75 percent (6/8) were full-time students throughout the program; whereas only 43 percent (3/7) students in the non-graduate group held full-time status during their enrollment.

Length of Time Enrolled in the Master's of Science in Nursing Program

The graduate respondents were enrolled in the program for a minimum of two years (50 percent [4/8] completed their degrees in this time) to a maximum of five years. The non-graduates were enrolled in the program for a period of four months to two years (42.8 percent [3/7] remained in the program for two years). Table 3 presents the year of enrollment and the year of graduation or termination with the program for each respondent, as well as the ages of all respondents.
### TABLE 3
RESPONDENTS' AGES AT TIME OF ENROLLMENT IN MASTER'S OF SCIENCE IN NURSING PROGRAM AND DATES OF ENROLLMENT AND GRADUATION OR TERMINATION

<table>
<thead>
<tr>
<th>Subject number</th>
<th>Age at enrollment in years</th>
<th>Year of enrollment</th>
<th>Year of Graduation</th>
<th>Subject number</th>
<th>Age at enrollment in years</th>
<th>Year of enrollment</th>
<th>Year of termination</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>26</td>
<td>1975</td>
<td>1979</td>
<td>11</td>
<td>36</td>
<td>1975</td>
<td>1976</td>
</tr>
<tr>
<td>8</td>
<td>31</td>
<td>1974</td>
<td>1977</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Simultaneous Roles

These figures are represented in Table 4. Of the graduate group 62.5 percent (5/8) were married as compared with 85.7 percent (6/7) of the non-graduate group. One of the graduating students included in the first figure was divorced between her first and second years of the program.

Of the graduate group, 25 percent (2/8) were mothers. Of the non-graduate group 57 percent (4/7) were mothers.
### TABLE 4

PERCENTAGE OF RESPONDENTS ENGAGED IN SIMULTANEOUS ROLES

<table>
<thead>
<tr>
<th>ROLE</th>
<th>Percentage of GRADUATES ($n_1$)</th>
<th>Percentage of NON-GRADUATES ($n_2$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIFE</td>
<td>62.5</td>
<td>85.7</td>
</tr>
<tr>
<td>MOTHER</td>
<td>25.0</td>
<td>57.0</td>
</tr>
<tr>
<td>EMPLOYEE</td>
<td>37.5</td>
<td>85.7</td>
</tr>
<tr>
<td>MEMBER OF GRADUATE CURRICULUM COMMITTEE</td>
<td>75.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>

$n_1 = 8$

$n_2 = 7$

In regard to employment while enrolled as Master's of Science in Nursing students, the figures show a greater divergence. Within the graduate group, 27.5 percent ($3/8$) were employed: two part-time and one in a full-time position. In the non-graduate group, 85.7 percent ($5/7$) were employed: four in full-time positions, one in a part-time job. Three of the non-graduate respondents began new, full-time jobs within one month of their enrollment in the Master's of Science in Nursing programs as part-time students.

Only one respondent in the graduate group was not married or a mother or employed for a salary. One non-graduate also fell into this category. That is, 13 percent ($2/15$) of the total number of students were single, full-time students without marital or employment obligations.
Of the graduate group 75 percent (6/8) were involved in working on the same committee during their years as students. The committee was the Graduate Curriculum Committee which met for approximately three hours weekly. None of the non-graduates sat on this committee; 28 percent (2/7) were engaged in committee work which was related to their employment.

**Individual Variation in Stress Perception**

Wide variation was found among the Master's of Science in Nursing students regarding their perception of the stressfulness of their lives during the program. Sixty-six percent (10/15) stated that they experienced a high level of stress; while 13 percent (2/15) felt a very low level of stress. The remaining three respondents fell in between these two ends of the scale.

Two of the younger graduates studied (both aged 26 years at the time of enrollment) felt that the amount of stress was almost negligible:

> Throughout the program I really never felt a lot of stress, I know there were some girls who really did feel stressed, but not me.

> I don't think the program was particularly stressful.

At the other end of the spectrum, fall these statements of two older respondents:

> I think it was one of the most stressful things I have ever done!

> A student is never prepared for the stresses they face, nobody tells you the way it is. You're supposed to go in there and sort of figure it all out for yourself; it's sort of survival of the fittest.
Two participants (both married, employed full-time, and respondents in the non-graduate group) commented on their high tolerance for stress:

I never perceived the stress as a negative thing, because I tend to like working under stress. It sort of motivates me to go and I never perceived it as negative, it was just always there.

I was always dealing in stress because even to get away from work to get to my lectures, put me in conflict. I imagine, now, it was constant conflict. But I live on that, I kind of like stress and if it's not there, I create it. So, if there wasn't any, I would have considered it [her life while enrolled] very dull.

A number of respondents in both groups, related an extensive range of physical behaviour which they believed was related directly to the stress which they were experiencing:

I got depressed sometimes and had a low energy level because of everything going on.

I wasn't sleeping well - I was worried about my marks.

I cried a lot during grad school - it really helped me.

I'd have a headache sometimes, that would indicate my stress level in a day. That might be my way of showing stress.

I could rip the walls out in my house whenever I felt like it.

I ranted and raved, just fly off the handle and then I'd be okay.

In the face of such widespread variation on the subject of stress, the reader is cautioned to interpret the findings with care as the possible harmfulness of stress is ultimately dependent upon the individual's judgement of it as such.
Role Stresses

For the purpose of clarity in reporting these findings, the number of frequency categories as shown on the scales in Exhibits A and B (see Appendix B) has been reduced from four to two. "Never" and "rarely" have been condensed into "infrequent"; "often" and "almost always" have been equated with "frequent".

The percentage of respondents, in both the graduate and the non-graduate groups, reporting frequent occurrence of role stresses is presented in Figure 1. The role stresses include: role ambiguity, role incongruity, role inadequacy, role overqualification, role conflict, and role overload. In all areas, a greater number of non-graduate respondents reported frequent stress than graduate respondents.

Role Ambiguity

Within the graduate group, 25 percent (2/8) perceived role ambiguity as a frequent stress. In the non-graduate group 42 percent (3/7) experienced it as a frequent stress. One non-graduating student explained it this way:

The expectations were clear to some of the students, the objectives were clear to some - but I - I didn't understand them. I wrote my own objectives five times and they still weren't acceptable; finally the professor wrote them for me. I found it very confusing - I thought I knew how to write objectives.

Two graduates from the program described the following similar feelings:

I was getting messages... There was this undercurrent of handing in an assignment, it wasn't satisfactory, but you weren't quite sure why, and I felt that was an expectation that I was never able to deal with openly, no matter how hard I tried.
FIGURE 1: PERCENTAGE OF RESPONDENTS REPORTING FREQUENT OCCURRENCE OF ROLE STRESSES
I thought the expectations of faculty were never very clearly described. They were clearly written, but they were written to meet the objectives of someone in the educational hierarchy. I would have liked more clarity on how one was expected to fulfill them, given the resources available.

Role Incongruity

In the graduate group 25 percent (2/8) experienced role incongruity as a frequent stress as compared with 71 percent (5/7) in the non-graduate group. One graduate of the program related the following:

I wanted more experience in group and family therapy situations and sat down with another student and wrote a letter to the Director of Nursing. I was told if I didn't like what was available, I could leave. I knew the diversity in experience that I wanted was out there, so it was extremely frustrating!

A second graduate gave this account:

I was required - strongly advised - to drop an elective course because they thought I was going to fail it. I didn't need it - it was an option. I think it should be up to the graduate student whether or not they take something.

Two non-graduates received the following similar impressions:

I felt there was conflict in valuing the student's values or attitudes or in recognizing them. I would say that we were given the feeling that, yes we could structure things in our own way, however, if you didn't structure it in the way that the instructor perceived that, then there was a conflict.

I felt sometimes that I was a means to their end, like I was another body that would get through the Master's of Science in Nursing program - are you fulfilling our requirements rather than what are your learning needs. I don't think my own needs were taken into consideration.

Role Inadequacy

In both groups, role inadequacy was the least frequent stress.
Only 12.5 percent (1/8) of the graduates and 14.3 percent (1/7) of the non-graduates frequently felt stressed in this manner. For the non-graduate who experienced a high frequency of role inadequacy, English was a second language. Commenting on her difficulties at that time, she stated:

I felt I couldn't understand anything! I had graduated so long ago [11 years previously] I had done well too, but here I couldn't seem to do anything right.

The graduate who experienced a high frequency of role inadequacy felt that "I suffered some difficulty with my writing skills - goes back as far as high school."

**Role Overqualification**

Role overqualification was the second least frequent in both groups: only 25 percent (2/8) of the graduate group and 28.5 percent (2/7) of the non-graduate group frequently experienced it. The graduate who was advised to 'drop' an elective course, and who described a high frequency of role ambiguity and role incongruity, also perceived frequent role overqualification. She felt that due to her extensive experience in the field, some of the required courses were "extremely inappropriate for me." Two other respondents from the non-graduate group reported the following similar feelings of overqualification:

I had had a lot of clinical experience and this was a very simplistic behaviour modification course - it was very basic stuff. It was very disappointing.

I didn't grow there. I became a little resentful of grades 80 and upwards that others received for work that wasn't on an acceptable level to me.
Role Accumulation

Role conflict and role overload may be considered together under the umbrella of role accumulation. Indeed, these two stresses often occurred simultaneously for both graduate and non-graduate respondents, making differentiation between the two role dilemmas difficult. Of the graduate group 62.5 percent (5/8) experienced a high frequency of role accumulation as compared with 100 percent (7/7) of the non-graduate group. A comment from a graduate expresses the feeling of many from both groups:

The things about graduate school that become really stressful are when one gets too involved with other commitments.

Role conflict was perceived as a frequent stress by 25 percent (2/8) of the graduate group; whereas in the non-graduate group, 85.7 percent (6/7) frequently felt it. The greatest conflict for both graduates and non-graduates revolved around demands made upon them as mothers, wives, or employees while fulfilling the demands made upon them as students. Of these eight women, 75 percent (6/8) were married, 50 percent (4/8) were mothers, and 50 percent (4/8) were employed; 37.5 percent (3/8) were all three. One non-graduate summed up the feelings of many in the statement:

I couldn't do everything I wanted to do - be there for my kids and my husband and my school work.

Others had similar experiences:

That happened to me - I ended up preparing papers at a time when my son received the Student of the Year Award and I couldn't be there.

A main source of conflict was taking two courses
and a new job all at the same time. That was a real source of conflict in terms of which assignment was I going to be able to cope with. I can remember being very grateful that it snowed one day and lectures were cancelled, because I didn't have my presentation ready.

It was always a big competition - trying to maintain a full-time job, trying to go to school as a student and also trying to be a wife.

One married respondent from the graduate group commented:

I always felt a conflict between what my husband wanted to do and my assignments - like on a Sunday afternoon!

One of the non-graduates who was a full-time, single student, experienced a different kind of role conflict to those above:

People say I'm too committed, too assertive. I think most teachers expect their students to be compliant and I'm not like that. I did a paper which I was very involved with - very engrossed and analytical. I had found a number of major discrepancies in the model [the UBC model]. It lacked the internal consistency I had expected of a model and all they could give me was a pass. I knew I had something there and if I didn't they should have taken the time to explain it to me - but I was never given the satisfaction of discussing it.

In the graduate group 50 percent (4/8) experienced a high frequency of role overload as compared with 100 percent (7/7) of the non-graduate group. For both groups role overload constituted the greatest stress (refer to Figure 1). One respondent summed up the feelings of many in the statement:

It was a great struggle at times.

Others shared a feeling of lack of time, for themselves and their families:
If you were to talk to my ex-husband, he would say I never fulfilled my commitments. Part of it was I didn't have time because I was always studying.

I had to drop everything else and put all my efforts into school work. I felt as though I had given up all that was me.

I never had enough time. I found I was neglecting myself and the kids. -- I didn't even have time to listen.

There were a lot of evenings when I would've liked, for instance, to spend time talking and listening to the children, but I had to work. I'd stay up all night finishing things.

Two respondents from the non-graduate group spoke of how much time was missed in caring for gravely ill intimates; one a very close friend, the other a sister. As a result, some of the students' papers and assignments were late.

Concurrent Stresses

The participants volunteered other concerns about the stress of graduate school. Since no clear differentiation exists between the two groups, graduate and non-graduate, the findings will be presented as frequencies of fifteen. Four major areas were described: work load, financial stress, stress management, and unmet expectations.

Thirty-three percent (5/15) felt that the workload required of the Master's of Science in Nursing student was a major stress. Three of these recounted similar feelings:

The number of courses that are required, the number of units that are part of the program, should be reduced.
I sort of felt I could never quite catch up or do things as well as I'd hoped, because I was always fighting deadlines.

The number of hours required by the school to meet commitments in their own program is far too much.

Worry over finances was described as a stress by 33.3 percent (5/15) of the students. (Only one of these also mentioned the workload as a pressure.) Three of the students who experienced financial pressure were employed. Another 20 percent (3/15) expressed feelings of gratefulness that financial insecurity was not a factor in their lives as students.

Twenty percent (3/15) felt that the Master's of Science in Nursing program should have included information on stress management.

Stress was the reality. I think the program should include ways on how to cope with so many things at once. We could have discussed time budgeting and setting priorities.

I think it would be very helpful to have, in the introduction phase, something on stress management.

Disappointment in regard to unmet expectations was poignantly expressed by 27 percent (4/15) of the respondents, as typified by the following comment:

I had a vision of a graduate program of camaraderie between enlightened sages and ourselves, a dialogue, stimulating discussions. But I realise, that is a fantasy of mine.

Methods of Stress Management

Figure 2 presents graphically the percentage of respondents
FIGURE 2: PERCENTAGE OF RESPONDENTS REPORTING FREQUENT USE OF METHODS OF STRESS MANAGEMENT
who frequently used five methods of stress management: problem solving, role reduction, role extension, role bargaining, and physical activity.

**Problem Solving**

Problem solving ranked the highest in use of the five management methods studied. Of the graduate group 87.5 percent (7/8) felt that they almost always used problem-solving, as compared with 85.7 percent (6/7) of the non-graduates. A second method of management, role reduction (which will be discussed in detail later), ranked equal in frequency to problem-solving for the non-graduate group, making these two methods the most popular in that group.

The majority of respondents, in both groups, appeared very familiar with the problem-solving process and were able to synthesize their feelings on problem-solving into concise comments such as the following:

- Organization is the key.
- I applied problem-solving to my whole life.
- I would say I used problem-solving all the time.
- When you're juggling several roles, it becomes a way of life.
- With my lifestyle, problem-solving was the only thing that made it all possible.

The only non-graduate who stated she never used problem-solving declared:

- It was the best solution - to establish priorities to be able to think clearly, but I couldn't do it because I was so anxious.
Similar feelings were voiced by the one graduate who felt she rarely used this method:

Problem-solving certainly would be helpful. I wish I'd used it earlier, but emotionality got in the way of me being that practical.

Role Reduction

In the graduate group, 50 percent (4/8) felt they frequently used role reduction. All four of these women were married, all did committee work, and two were mothers. This method was more popular in the non-graduate group: 85.7 percent (6/7) frequently employed role reduction, a rank equal to the use of problem-solving in this group. The one respondent (who was a married mother with committee work) in the non-graduate group who felt she rarely used it, commented:

I would say that was poorly managed back then -
I think it's crucial to reduce them [commitments] but it's very difficult for me to do.

Another non-graduate who made frequent use of this method gave the following analogy:

I look at the stresses in my life like a plate of food. If I add something to the plate, then I must take something else off. I strive for a balance among my commitments to myself, to the community - I always keep balancing.

Others commented:

I tried to limit myself to being a student - that was a full role in itself.

Social life went out the window!

It took all my energy to keep my head above sinking.

Just on a preventative basis, I tried not to get involved too much.
Role Extension

In both groups, role extension was the least frequently used method. Of the graduates, 25 percent (2/8) favoured this method; 42.9 percent (3/7) of the non-graduates used role extension. One student, a graduate, who enrolled in a community centre course, which was held twice weekly, stated:

It was so nice to do something different, just to sort of take your mind off the pressure.

A non-graduate commented:

I think I did step up my commitments to some degree. I think some of that came from a heightened awareness that perhaps you were capable of doing more things than you thought you were.

Role Bargaining

Role bargaining ranked third is use by the graduate group, a rank equal to role reduction. Of the graduate group, 50 percent (4/8) felt that they frequently made use of this method. All of these were married, mothers, or employed. For the non-graduate group, role bargaining also ranked third in use. Of this group 71 percent (5/7) used this method. All but one of this group were married, mothers, or employed.

One non-graduate commented:

I can remember doing a lot of bargaining with my husband. Although we had a good understanding, there were some times, I was just too tired to cook the meals. And I had to do a fair amount of bargaining at work - in order to keep a morning class, I had to work an extra evening.
Another, whose father died while she was attending school stated:

I negotiated with my professors because I didn't think I could manage all my deadlines.

A non-graduate recalls this experience:

The bargaining went on with my eldest daughter who did a lot of the meals and the housework.

A respondent who felt she rarely role bargained expressed this idea:

I think it's very valuable, but I think people have to learn how to bargain; I think as women we don't really come by that role, we just tend to do it all.

Physical Activity

For the graduate group, physical activity represents the second most popular method for managing stress, 62.5 percent (5/8) of this group used it. Fifty-seven percent (4/7) of the non-graduate group did as well. The activities spanned a broad range:

The jogging really helped, just to go and pound the pavement for a while.

I blocked out school this way - I did a lot of riding, road work, walking.

I actually did exercises on a daily basis - that's the only time I ever have!

I rode my bike to and from school and I played a lot of squash.

Swimming, badminton. I loved that physical exhaustion.

Resource Networks

The characteristics of the social environment surrounding the
student may modify the impact of role stress. Table 5 displays the student's perceptions of four possible resources: family, fellow students, faculty and friends. Upon examination of this table, it is evident that the majority of the graduate group characterized all four of these resources as supportive, not so with the non-graduate group. In both groups, 100 percent found that their families and friends were supportive. Many respondents mentioned that their families and friends "didn't necessarily understand all the stresses of school," "it was impossible for them to comprehend it all," nevertheless "they were behind me all the way" and "essential to my mental well-being."

### TABLE 5

**PERCENTAGE OF RESPONDENTS' PERCEPTIONS OF RESOURCES WHICH FACILITATE ADJUSTMENT TO THE GRADUATE STUDENT ROLE**

<table>
<thead>
<tr>
<th>PERCEPTION</th>
<th>FAMILY</th>
<th>SELECTED FELLOW STUDENTS</th>
<th>SELECTED NURSING FACULTY</th>
<th>FRIENDS or COLLEAGUES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Graduate</td>
<td>Non-Graduate</td>
<td>Graduate</td>
<td>Non-Graduate</td>
</tr>
<tr>
<td>Supportive</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>86</td>
</tr>
<tr>
<td>Indifferent</td>
<td></td>
<td></td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>Negative</td>
<td></td>
<td></td>
<td>25</td>
<td>14</td>
</tr>
<tr>
<td>Graduate Group (n₁ = 8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Graduate Group (n₂ = 7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The most widely used resource appears to have been selected fellow-students. This group was perceived as supportive by 100 percent (8/8) of graduates and 86 percent (6/7) of the non-graduates. For both groups 93 percent (14/15) spoke of 'sharing anxieties' with other students:

I used another fellow student constantly
I couldn't have done it without her.

The mutual support was excellent.

I think it was an interdependency.

We were very close-knit and very supportive on one another.

The single respondent who perceived fellow students as indifferent, recounted feelings of isolation and alienation:

They all seemed very busy, they didn't have any time. I didn't feel I belonged to the group.

The resource about which there was the most divergent thinking amongst all respondents, was the nursing faculty. Of the graduate group, 62.5 percent (5/8) felt the faculty were supportive as compared to 29 percent (2/7) of the non-graduate group. One graduate stressed how supported she felt by her thesis committee:

They had to scrape me off the walls so many times! I'd go in and say "Oh, what do I do now" and they would say, "OK, what exactly is it? Why don't you just...?"

Another graduate expressed similar feelings:

I always felt I could approach them and work something through if I were having difficulty. I never felt any blockage in terms of getting an appointment to see them.
One graduate recalled:

The Director of the School was very encouraging. I think if it hadn't been for her saying: 'Hey, you're Master's material' I might not have considered it.

Twelve and one-half percent (1/8) of the graduates and 57 percent (4/7) of the non-graduates characterized the nursing faculty as indifferent. Two non-graduates felt the faculty was "unempathetic" or "lacked empathy". A third put it this way:

I don't think the faculty really understand the space you're in - the stress, the strain, the difficulties.

One graduate recounted:

It was a very cold reception within the School of Nursing. I was really surprised, having been at other universities. No one on faculty took any personal interest in me. It would have been nice.

Describing the nursing faculty in negative terms were 25 percent (2/8) of the graduates and 14.8 percent (1/7) of the non-graduates:

They were very rigid and protective of their model. I felt they couldn't honour any discussion about its defects.

Similar feelings were voiced by others:

They seemed somewhat defensive and protective - maybe they felt somewhat insecure.

I felt like it was a constant fight. It leaves me with some very negative feelings about the faculty.

Summary

In summary, the findings in regard to the types and amounts of
stress experienced while enrolled as Master's of Science in Nursing students, reflect wide variation among individual respondents. However, the majority of both graduates and non-graduates found the program stressful.

Both graduates and non-graduates viewed family and friends as supportive resources. All respondents, with one exception, perceived fellow students as supportive. The majority of graduates also viewed faculty as supportive; the majority of non-graduates viewed faculty as indifferent. Some respondents in both groups characterized faculty as a negative resource.

The non-graduates experienced more frequent role stresses than graduates. The most frequent source of stress for both groups was role accumulation. Non-graduates experienced higher levels of role incongruity than graduates. No meaningful differences were found between the two samples in the areas of role ambiguity, role inadequacy, and role overqualification.

All respondents described at least one concurrent stress of a heavy workload, financial pressure, lack of knowledge about stress management, or disappointment in regard to unmet expectations regarding graduate school.

The methods of stress management used by the two samples were similar. In the graduate group, problem-solving ranked highest, followed by physical activity. Role reduction and role bargaining were equally popular, ranking third in use. Within the non-graduate sample, problem-
solving ranked first and was matched by role reduction. Role bargaining ranked second, followed by physical activity.

The discussion of these findings follows in Chapter 5.
CHAPTER 5

DISCUSSION OF FINDINGS

The findings of this study will be discussed in relation to the theoretical framework formulated in Chapter 2. The discussion is organized into five major areas: individual variation in the perception of stress, role stresses, concurrent stresses, methods of stress management, and resource networks. Due to the exploratory nature of this study, it is impossible to draw any conclusions regarding cause and effect. Therefore, the researcher has limited herself to an examination and a description of the similarities and differences between graduate and non-graduate respondents, in an effort to discover relationships among the findings.

Individual Variation in Stress Perception

In the study, wide variation existed among the respondents concerning the degree of stress which they experienced while enrolled as Master's of Science in Nursing students. Sixty-six percent (10/15) stated they felt a high level of stress while 13 percent (2/15) recalled having a very low level of stress. Assuming truthfulness on the part of the respondents and a similar degree of accuracy in recalling past events, what accounts for such divergent thinking?
Personality Differences

Lazarus (1977) notes that no one situation is a stress to all people. General agreement exists that the role of student can be stressful, but the interpretation of the stress by the student and therefore her response to the situation, is ultimately unique to each individual. Awareness of this uniqueness is cogently demonstrated in a remark made by one respondent:

Some girls felt more stress than others. I'm not sure why - maybe they had other stresses such as being new to Vancouver and not knowing anybody, not having any resources; or maybe it was just different personalities.

Aguilera (1978), Lazarus (1977), and Rapoport (1962) all note the importance of cognitive processes in determining the quality and intensity of an individual's response to a situation. Rapoport (1962), in her extensive efforts to develop a theoretical framework on crisis, identified that the identical set of circumstances may be perceived by a single individual in at least three different ways, each characterized by its own unique mode. Many of the respondents in the present study appear to have perceived some aspects of graduate school as a threat and reacted to this with anxiety. Anxiety was reflected in the accounts of those who feared failure, of those who agonized over difficult papers, and of those who were wondering, at times, how they were possibly going to cope with the demands. One of the non-graduates perceived her termination with the Master's program as a loss and reacted with pangs of depression:

It had been too much for me and it was such a relief to give up, but part of me felt badly for not being able to continue.
The majority of respondents seem to have viewed graduate school as a challenge. Rapoport (1962, p.25) states that when an event is viewed as a challenge, it is met with "a mobilization of energy" and "purposeful problem-solving activities." Eighty-seven percent of the two samples felt they utilized problem-solving frequently.

Appley and Trumbell (1977) emphasize the individuality of stress tolerance. They maintain that a person's vulnerability to a situation is dependent upon the significance of the event to the person's life. To understand what conditions are likely to be stressful to an individual, the motivational structure and past history of that individual must be taken into account. The intimate link between the significance of events and motivational structure is demonstrated in the divergent comments of two respondents:

Being a student is a full role - it had complete priority with me.

When things are okay at home, school is a good place to be.

The importance of past history in perceiving and coping with the present is a basic principle of crisis theory (Aguilera and Messick, 1978; Caplan, 1964). The kinds of situations to which a person has been exposed in the past and the effectiveness with which one has been able to cope with them, is strongly reflected in present behaviour. Although all the respondents in the present study had obtained Bachelor's of Nursing degrees, no data was collected on feelings of satisfaction/dissatisfaction or success/failure which they carried with them into graduate school.
Bettelheim (1960) in his study of the SS concentration camps observed the close link of motivational structure and past history in the reactions of the inmates. He noted how ill-prepared the middle-class prisoners were for the initial shock in comparison with political prisoners, Jehovah's Witnesses who were conscientious objectors, and criminal inmates:

No consistent philosophy, either moral, political or social, protected their integrity or gave them strength for an inner stand against Nazism. They had little or no resources to fall back on when subjected to the shock of imprisonment. ...In contrast, the criminal group were least affected. (Bettelheim, 1966, pp. 120-123)

The expectations which an individual holds regarding her ability to cope with stress successfully, play a large part in determining whether she feels threatened or challenged. Janis (1962) in an analysis of the effects of warnings of disaster, notes that power to master the danger, to exert some control over it, is a crucial factor in reducing the threat, thus the anxiety.

Epstein (1965) compared inexperienced parachutists with experienced men, and observed that, with increased exposure to the situation, the men became desensitized to the threat. This was referred to as emotional adaptation. Although adaptation over time was not specifically included in the present study, it was alluded to by two respondents who described initial feelings of inadequacy which disappeared as they became "adjusted to the climate." A longitudinal study of the adaptation over the course of the Master's of Science in Nursing program, similar to the studies of nursing undergraduate students by Elfert (1976) and MacMaster (1979), might further understanding of this phenomenon.
Holmes and Rahe (1968) from their research using a self-administered questionnaire, the Schedule of Recent Experiences, report that illnesses of all kinds increase following stressful life changes, due to the adjustment which is required of the individual. This is supported by Selye's (1956) extensive work on stress which demonstrates that stress produces dramatic changes in bodily processes through huge increases in the production of major hormones. Although not specifically tested for, the link between stress and somatic symptoms was found in the present study. Many respondents spontaneously related difficulty in sleeping, low energy levels, feelings of anxiety, feelings of depression, headaches and crying spells. An interesting subject for a future study would be the frequency and distribution of such common infectious diseases such as the cold and influenza, during enrollment.

Role Transition

Table 2 indicates that 71.4 percent (5/7) of the non-graduates had originally graduated with the Bachelor of Science in Nursing (B.S.N.) degrees from The University of British Columbia. Only 37.5 percent (3/8) of the graduate group had done so. Yet the non-graduates experienced graduate school at the same location as more stressful. Anxiety is usually less in situations of greater familiarity. A sense of security was reflected in a remark by a non-graduate:

I had a very good relationship with some of the instructors from having been at UBC two years previously, so they were really good for me to talk to.

Two respondents (who had recently moved to Vancouver) commented on the advantages of leaving stresses behind them:
It worked out very well for me. Four days a week I lived by myself:— I could eat when I wanted, sleep when I wanted, study all night if I wanted. Then on the weekends, I'd go back to my family and block out school entirely.

Since I had just arrived, I had a lot of time for school with very few distractions—I had left my friends and my job.

However, such a clear cut division of roles was not feasible for the eight respondents (four in each group) who had been living in Vancouver longer than 10 years.

Arndt and Laeger (1970), in their study of role strain in nursing directors, concluded that role strain decreased the longer the director remained in the same hospital. It is possible that the non-graduates had not adapted to their new role. Four of the non-graduates spent one year or less in the program, whereas all of the graduates were enrolled for a minimum of two years. Camoozo and others (1981) who examined their own response to graduate studies in nursing, found that the longer they remained in the program, the more positive was their adaptation.

A third factor and probably a more significant one concerning role transition, was the status of respondents: part-time or full-time. Only 25 percent (2/8) of the graduate group were enrolled as part-time students at some point during the program. However, 57 percent (4/7) of the non-graduates were part-time students. If an individual limits the extent to which she is available for a new role (that is, registering as a part-time student), she is, in effect, saying 'I have other roles, other commitments that require my time and energy.' Her commitment to
her role as student may not be any less than that of a full-time student, but it can be assumed that her availability is more limited. Studies of organizational stress show that partial withdrawal is an adaptive technique often found in the presence of role stress (Kahn, 1964). Camooso and others (1981) found that their other roles as friend, wife, and mother, retarded their adaptation to the student role.

Resource Networks

Possible resources which may have facilitated participants' adjustment to the graduate student role include four major groups: family, fellow students, friends and colleagues, and faculty of the School of Nursing.

Although respondents shared many similarities including age and educational status, they may have experienced different amounts of role stress due to differences in their resource networks. Crisis theorists recognize the significance of the situational supports of the patient: family members, friends, or an involved professional (Aguilera and Messick, 1978; Caplan, 1964). The availability of such supports has been viewed as a prime factor in balancing the patient's reaction to stress. This may be extrapolated to non-patient groups. This awareness was shared by many of the respondents who described their dependence upon husbands and close friends at various times during their period of enrollment.

If we refer to Table 5, we note that 100 percent of the graduate and non-graduate groups (15/15) characterized their families
and friends and colleagues as supportive. This figure requires
examination because it is highly unusual to find all the members of any
group expressing the identical feeling. Two factors which might influence
this result should be noted. First, the respondents were faced with a
fixed alternative question of a global nature. They were asked to
characterize resources as supportive, indifferent, or negative. In all
likelihood, respondents felt generally that family and friends were
supportive, although there may have been specific instances when this
was not the case. This was clearly illustrated by a graduate who was
married at the time of her enrollment:

I think he [her husband] resented it sometimes
[the work load]. I knew he did and then I'd
resent him, and wonder why he couldn't support
me 100 percent of the time. But overall, he
was pretty good, really very understanding.

A second influence bearing on such a cohesive result is the
constraint of social approval. Families and friends are expected to be
supportive; supportiveness is presumed to be a major function of intimate
relationships. A student might well find it too discomfiting to admit
that she did not perceive them as always supportive.

Fellow students were characterized as supportive by 100 percent
of the graduate group and by 86 percent (6/7) of the non-graduate group.
This resource was widely used by students who repeatedly spoke
appreciatively of the supportiveness of their peers. Hamburg and Adams
(1967) who have been involved in a number of projects, studying the
adjustment of college students, note several varied functions of the
student group. These functions appear to fall into two categories,
which enhance each other: those related to learning and those related to
emotional support. Students helped each other to learn through the pooling of information and through intellectual stimulation. They supported each other emotionally by exchanging coping skills and listening in times of crisis. These findings are supported by the present study in which the large majority of respondents spoke of enjoying just such benefits from their relationships with other students. It heightens the awareness of the reader to the feelings of alienation and isolation experienced by the single respondent who perceived her fellow students as indifferent. Her perception of her role stress was high, particularly in the area of role accumulation. As a result, she recalled feelings of constant anxiety regarding her period of enrollment. One wonders if she had found fellow students more accessible, what effect this would have had on reducing her intense feelings of role strain.

The resource about which there was the greatest disparity was the nursing faculty. Only 29 percent (2/7) of the non-graduates felt the faculty were supportive as compared to 62.5 percent (5/8) of the graduates. A major contributing factor to these figures may be that the graduate group were more successful than the non-graduates at achieving the goal of graduation, and thus felt more positive about the people in a position of power in the School of Nursing. The work of Starr, Betz and Henne (1972) concluded that students who performed satisfactorily within a college environment felt more satisfied that such an environment was meeting their needs. This is further supported by findings from the present study that 57 percent (4/7) of the non-graduates perceived the faculty as indifferent and 14.8 percent (1/7) found faculty negative.
However, such an interpretation does not explain why 12.5 percent (1/8) of the graduates perceived faculty as indifferent and 25 percent (2/8) felt faculty were negative. Camooso and others (1981) noted that support from faculty was crucial to increasing the self-esteem of Master's of Science in Nursing students. Two of the respondents spoke with intensity of their need for faculty support:

\begin{quote}
In nursing, we spend a lot of time talking about understanding our patients and supporting them and all that. I think we need to spend a lot more on supporting one another!
\end{quote}

\begin{quote}
Just to have someone on faculty show a little interest: we're a caring profession and my God! I'm just wondering where we're at in terms of caring! Maybe that's the essential element in reducing stress; that we show some caring to each other!
\end{quote}

While it is recognized that individual students encountered different nursing faculty during the course of the program, general personality differences among the students may account for the varied views of faculty. The past history of the student may also be significant. If she experienced unhelpful relationships with faculty while engaged in her Bachelor's education, this may be reflected in her thinking about the Master's faculty.

Compliance with social demands leads to rewards and social approval (Lazarus, 1969). As children, we learn that failure to comply can result in unpleasant consequences, not the least of which is social
disapproval. On the other hand, we are simultaneously taught to admire assertiveness in others. By asserting ourselves, we gain a sense of individuality and independence and an elevation in our self-esteem. Assertiveness implies control and is a skill; aggressiveness comes easier when our needs are thwarted. As Dollard (1939) noted in his classic monograph, aggression is a product of frustration. The researcher proposes that the variation found in this study, in the perception of faculty, was the result of two different dominant personality characteristics of the students: assertiveness and compliance. This proposition is supported by two of the respondents who are representative of very different personalities:

I think the more aggressive, the more assertive students found it [the program] a very frustrating, exasperating experience. The traditional, more submissive people, I think, got a lot more help, but, maybe, they sought a lot more help.

I was basically quite happy; I was very compliant because I was happy with anything, with any of the courses I took. I figured there was something positive from every course and every experience, whether or not I liked it.

The first respondent viewed faculty as negative, while the second found them supportive. The compliant student who valued social approval at a higher premium may have been more amenable to the faculty; thus she may have received more support for her efforts than the assertive, less tractable student. This is supported by Breger (1963) who studied female undergraduates and concluded that high-conformity subjects were unwilling to express hostility.
Role Stresses

The present study revealed that the non-graduate group reported higher levels of stress than the graduates for role ambiguity, role incongruity, role inadequacy, role conflict, role overload, and role overqualification (as presented in Figure 1). The greatest differences between graduates and non-graduates were found in the frequency of role conflict and role overload. When these two stresses are combined together under role accumulation, they represent the greatest stress in both groups.

In assessing the validity of these findings, the researcher must consider the influence of selective recall. Did, in fact, non-graduates experience greater stress while enrolled in the Master's of Science in Nursing program, or, do they simply recall their period of enrollment in more negative terms? Conversely, do the graduates, who were successful at achieving their goal, recall their years of enrollment in a more positive manner? Lazarus and Longo (1953) in their studies of defensive processes, concluded that selective recall serves a protective function and may take two forms. An individual may recall successes only, indicating an avoidant defense, or a person may recall failures only, representing a vigilant defense. Both methods are useful ways of coping with the present. An exclusive focus on past successes permits the individual to have confidence in her abilities to deal with a present threat. Alternatively, the predominant recall of failures, encourages the individual to be wary and cautious in coping with a present threat. As one non-graduate thoughtfully expressed her sense of caution:
When I think of all the difficulties and disappointments I encountered, it makes me wonder if I'll ever go back to school again.

It has been noted that a negative feeling inevitably accompanies anxiety-producing situations (Lazarus, 1969). A study by Starr and others (1972) on differences in college student satisfaction found that those students who 'dropped out' were significantly less satisfied with academic offerings and requirements of the university, faculty and staff competence and helpfulness, and the amount of time required to meet the demands of the university. These findings are supported by the present study, in which the non-graduate group expressed negative feelings regarding many aspects of their enrollment, more frequently and more intensely than graduates. If Hardy's (1978) postulate that role stress induces role strain (anxiety and frustration) is accepted, one can conclude that the non-graduate group experienced higher levels of role strain than the graduate group, due to the former's higher levels of role stress. The role stress will be discussed in order of importance, based on frequency and differences between the two groups.

**Role Accumulation**

Role accumulation, which incorporates both role conflict and role overload, constituted the greatest stress for both groups in the sample. One hundred percent (7/7) of the non-graduates experienced a high frequency of role accumulation as compared to 62.5 percent (5/8) of the graduates. This is supported by the data represented in Table 3, which shows that a greater percentage of non-graduates were married, mothers, and employed. Forty-two point eight percent (3/7) of the non-
graduates shared all three roles. It is further supported by the studies of Snoek (1966) and Whyte (1946) that concluded that as relationships become more diverse and numerous, the role strain or tension of the individual increases.

The researcher recognizes that intimate involvement with others such as relatives or close friends may also have been a significant role for many of the respondents. Indeed, in the interviews, an attempt was made to elicit information on the significance of such roles to all respondents. Four of the students emphasized a large commitment to an intimate: two cared for sisters who had undergone emotional crises, one nursed a gravely ill friend, and one mourned a dying father. However, for the majority of the respondents, the data were unclear as to the depth of demands of relationships with other intimates.

Seventy-five percent (6/8) of the graduate group participated in the Graduate Curriculum Committee, as compared to none of the non-graduates. This role involved a minimum of three hours weekly. It could be argued that the non-graduates were coping with the demands of husbands, children and employers and recognized their limitations to involvement in further relationships at that time. This theory is supported by the finding that 100 percent (7/7) of the non-graduates experienced a high frequency of role overload, 50 percent more than the graduates. However, of the six members of the graduate group who participated in the Graduate Curriculum Committee, two were wives and mothers or were single and employed. A difference in the motivation of the two groups could explain this finding. Role theorists have long
emphasized the importance of identification in the adequate socialization of a novice into a new role (Cooley, 1962; Martin and Katz, 1961). By the process of identification with role models, the individual learns about the skills and behaviour necessary for satisfactory role performance. Possibly the non-graduates were less motivated than the graduates to further involve themselves with the School of Nursing faculty, thus reducing their opportunity for socialization into their new role. This theory is supported by earlier evidence that role transition of the non-graduates was delayed for 57 percent (4/7) of the group, due to their registration as part-time students. Three of these women began new jobs within one month of enrollment in the Master's of Science in Nursing program, undoubtedly making adjustment to the student role still more difficult. Many respondents commented on the degree of role conflict they experienced due to conflicting demands placed upon them as employees and students, or as mothers and students. However, not all the students who had accumulated two or more major roles felt the same amount of stress. The explanation may lie in personality differences. This is substantiated by a study on managers in several industries. Kahn (1964) found a positive relationship between role conflict and tension for individuals classified as introverts. No such relationship was discovered for those classified as extroverts.

Role Incongruity

The frequency of role incongruity was 46 percent higher in the non-graduate group (5/7) as compared with the graduate group (2/8). Many authors have found that this type of stress occurs when an individual's attitudes or values conflict with the expected performance
(Arndt and Laeger, 1970; Martin and Katz, 1961). Since the non-graduates withdrew or transferred from the School of Nursing, it was anticipated that the incongruity which they felt with the Master's of Science in Nursing program, would be higher than graduates. This is supported by the studies of Starr and others (1972) who found that feelings of satisfaction in the college student increased the probability of his remaining in college. The finding in the present study that 61 percent more non-graduates than graduates experienced frequent role conflict, further supports the comparative findings on role incongruity. The relationship between dissatisfaction and role conflict is well-documented (Green and Organ, 1973; Johnson and Graen, 1973). Role strain intensifies and job satisfaction diminishes.

**Role Ambiguity**

Seventeen percent more non-graduates (3/7) than graduates (2/8) experienced frequent role ambiguity. A greater difference might have been anticipated, as many authors have found a correlation between lack of clarity about the responsibilities of a job and high dissatisfaction (Arndt and Laeger, 1970; Green and Organ, 1973; Johnson and Graen, 1973; Lyons, 1971). Since stress from role ambiguity was relatively small for both graduates and non-graduates, this may be an indicator that the faculty of the School of Nursing were able to present their expectations to students in a clear, well-defined manner.

The higher role ambiguity of non-graduates may be a sign of inadequate socialization into the student role. Earlier, in the discussion of role transition, the researcher observed that the status
of the student and the length of her enrollment in the Master's of Science in Nursing program, may affect the speed of the socialization process. If the student has only a vague understanding of what is expected of her, satisfactory adjustment to the student role cannot occur until those expectations are clarified. If the student is only part-time, clarification may be delayed.

The difference in role ambiguity between graduates and non-graduates could also be attributed to personality characteristics. Kahn (1964) in his study of industrial managers, found that a positive relationship existed between role ambiguity and tension in those individuals classified as high in need of cognition. Such people desired well-structured guidelines as to expected behaviours. That the need for cognition is highly variable, was substantiated by a respondent from the graduates in the present study:

Many expectations were vague and poorly defined. I didn't see this as a terrible stress, I saw it as an asset, because I could define what I wanted to do.

**Role Overqualification and Role Inadequacy**

The differences between non-graduates and graduates for role overqualification and role inadequacy were minimal and non-meaningful. Twenty-five percent (2/8) of the graduate group experienced frequent role overqualification, as did 28.5 percent (2/7) of the non-graduate group. Role inadequacy was experienced by 13 percent (2/15), one from each group. Therefore, the majority of the students enrolled felt that they were neither under- nor overqualified for the tasks required of
being a graduate student. This may be an indicator of the appropriateness with which the students were selected by Nursing faculty as suitable participants in a Master's of Science in Nursing program.

However, the results should be interpreted with caution. Of the six role stresses studied, role overqualification and role incompetence are very likely the two most closely linked to a person's abilities as a student; the former favourably, the latter unfavourably. It is highly probable that had the interviewer phrased her questions regarding these two stresses with further specific examples and with an allowance for adjustment over time, the frequency with which role overqualification and role inadequacy were cited as stresses would have been higher. For example, one respondent who checked role inadequacy as rare, gave the following account:

Sometimes, at the beginning, I wouldn't feel like I was intellectual enough for the whole flavour of the university. It was only initially until I got myself acclimatized to being a student again.
Concurrent Stresses

In response to the final question on the interview guide, all fifteen respondents mentioned other stresses. Thirty-three percent (5/15) felt that the workload required of a Master's of Science in Nursing student was a major stress. This supports the finding that role accumulation was the most frequent stress; many respondents signified that the requirements of the role of graduate student with readings, assignments, seminar presentations, and examinations were more than enough to fill one's waking hours. Mechanic's (1962) study of Doctoral students supports the common-sense notion that the individual student experiences a fairly high degree of anxiety surrounding his performance at peak periods. If the demands of other relationships interfere with the student's ability to perform as a student, the anxiety is increased.

Thirty-three percent (5/15) of the total sample described feelings of worry and at times, hopelessness, over financial pressures. A further 20 percent (3/15) expressed gratefulness that they were fortunate enough in having sufficient means that they did not suffer anxiety over finances. The researcher can only speculate as to the numbers who would have cited financial pressure as a stress, had a question concerning its influence been included in the interview guide. Financial worry was mentioned with equal frequency by the graduates and by the non-graduates; as well as by the full-time students and the part-time students who were employed for a salary. One of the graduate respondents spoke with some resentment of her wish to be enrolled as a full-time student, but that the necessity of earning took priority for her first
two years in the program. The financial strain may have been greater for the 40 percent (6/15) of the total sample who had dependents. As one of the non-graduates commented on her feelings after leaving the program:

In a way it was a relief. For the first time in a long time I was earning money, rather than spending it. I could get the children some of the things they wanted.

At least one of the non-graduates was aware that financial pressure augmented her feelings of stress concerning role accumulation:

What would have made it easier would have been to do one thing. The only reason I was working full-time was because I needed to be able to make the money to go back to school; I didn't have any option. But if I didn't work, how would I have managed?

Twenty-seven percent (4/15) of the total sample voiced disappointment in regard to unmet expectations. Although this is a small percentage of the whole, the intensity with which these disappointments were expressed necessitates their inclusion there. There is no way of knowing the extent to which the sense of disillusion with graduate school was shared by the other respondents. As one participant stated:

Maybe my expectations are too idealistic - I consider education to be so different from life and it's not! It should be more collegial - there shouldn't be so much infighting. It's just like any other bureaucratic institution which makes it very hard for me to retain my enthusiasm.

The disappointment may reflect inadequate preparation for the role. The students may have been unrealistic in their expectations of a Master's
of Science in Nursing program or the School of Nursing may have provided an inadequate orientation to the specific objectives of the program and the available resources.

**Stress Management**

Five forms of stress management were examined in the present study: problem-solving, role reduction, role increase, role bargaining, and physical activity. It was anticipated that these management strategies would have been used singly or in combination, by the Master's of Science in Nursing students in their efforts to cope with role stress.

It was recognized that respondents may have used these methods on a preventative basis, in the sense of preparing themselves for the stresses of graduate school. Janis (1962) in his study of surgical patients emphasizes the importance of the "work of worrying" in coping successfully with stress. Mechanic (1977) has also noted that preparation is a major factor in alleviating anxiety. This is further supported by the studies of Hamburg and Adams (1967) on coping behaviour.

Both the graduate and non-graduate respondents were anticipated to have used some or all of these coping behaviours as a response to immediate stress during the course of the program itself. The researcher asked the respondents to consider both kinds of use (preventative and responsive) when answering her questions concerning the frequency with which the various modes of stress management were used. Methods of stress management will be discussed in order of importance.
Problem Solving

Problem solving was the method most frequently used by both groups. This suggests a very healthy response on the part of the vast majority of the sample (86.6 percent - 13/15). Rapoport (1962) has suggested that when a stress is viewed as a challenge, it is likely to be met with problem-solving activities. Wrightsman (1979) emphasizes that in order to cope effectively with a situation which requires adjustment, it is first necessary to recognize and understand the various aspects involved in the situation.

The participants in this study appeared to be extremely familiar with this kind of approach; many respondents cited using some form of problem-solving throughout their daily lives. Is this the influence of their earlier training in which the scientific method is taught, via the nursing process, as the sound means of decision-making? Many authors have noted that people tend to make habitual use of methods with which they are familiar in coping with stresses in the present (Aguilera, 1978; Mechanic, 1977; Caplan, 1964).

Role Reduction

The non-graduates made 27.5 percent more frequent use of role reduction than the graduates. This was congruent with the finding that non-graduates experienced a higher-frequency of role accumulation than graduates. Goode (1960) in his theory of role strain, cites role reduction as one of the obvious means by which an individual may reduce the strain accompanying role accumulation. Through role reduction, the student redefines what others expect of her and what she expects of herself.
For example, if she hires a cleaning lady to maintain her household, the student is shedding that obligation - it is no longer one of her roles. How does an individual decide what roles can be eliminated? Both Goode (1960) and Hardy (1978) acknowledge that some positions in life can be abandoned more easily than others. Hardy (1978) maintains that the degree of dependence upon that position is the significant factor, however, she does not specify what kind of dependence; for example, emotional or financial or otherwise. To the researcher, a more significant factor is the degree of commitment to that position. The individual's commitment to a role is ultimately dependent upon her concept of self: her values, attitudes, and beliefs. This is supported by the findings of Nevill and Damico (1974) that the greatest role conflict for a woman revolves around her image of herself. One woman might well hold the value of higher education sacred, spending more time in its pursuit than another who places greater priority on her role as mother, expending more energy in that area.

However, both non-graduates and graduates were in agreement that the first relationships curtailed, in an effort to reduce stress, were those with friends. A number of respondents complained of a lack of a social life. One remark which seemed representative of the feelings of many:

Friends were the first to go. You hope if they're good friends that they'll understand that you're no longer free.

Role Bargaining

Role bargaining was popular with both groups; 60 percent (9/15) used it, the non-graduates more frequently than the graduates.
Role bargaining, like problem-solving, can be an extremely effective response to stress. By this procedure, an individual is forced to analyze the stresses she is experiencing and assert some control over what others expect of her. This has the immediate effect of reducing some of the associated role strain. If the student is an effective bargainer, the necessity of total withdrawal from a role is less likely.

Productive bargaining is probably a learned technique, one gets better with practice. It appears to involve a myriad of skills such as communication, delegation, and negotiation; in short, the type of skills required of any efficient manager. All but one of the nine respondents who frequently used this technique, were wives, or mothers, or employees, or all three. It is likely that this group used equitable bargaining with others, prior to becoming Master's of Science in Nursing students, with some success and continued to make habitual use of it during the course of the program.

**Physical Activity**

Physical activity was used by slightly more graduates than non-graduates; by 60 percent (9/15) of the total sample.

The value of physical exercise has long been recognized, as exemplified by the axiom: "A healthy body; a healthy mind." Tension and frustration tend to tighten and paralyze muscles; physical activity allows the body's musculature to unwind and stretch, causing relaxation. Selye (1974) emphasizes that frustration is much more likely to cause disease than excessive muscular work, which can change feelings of stress into feelings of relaxation. The findings of Gal and Lazarus (1975) support the need for activity of any kind in the face of stress.
For some respondents, physical activity seems to have been an important aspect of life prior to entry into graduate school. However, as demands increased and time was constrained, such activities as badminton, swimming and golf were eliminated by role reduction. Camooso and others (1981) made a similar finding. Two respondents in the present study, spoke of specifically adding some form of physical activity to their routine during their enrollment as a means of coping. Most who used this strategy were adamant about the value of physical activity and viewed it as a vital component of their lives.

**Role Extension**

Role extension was the least commonly used by both groups, although it was used with greater frequency by the non-graduates. One of the reasons for the low popularity of role extension may be its limited effectiveness. Goode (1960) indicates that the value of this procedure may lie in the ability of the individual to use expanding relationships as an excuse for not fulfilling other obligations. It has been further emphasized by Seiber (1974) that sometimes adult students are permitted a great deal of latitude for precisely the reason that they are viewed as coping with multiple demands. "This situation allows ample room for the accumulation of privileges at the expense of obligations." (Seiber, 1974, p. 572).

Another perspective on role increase is that it may be used as a diversionary tactic. In such a case, the student becomes involved with
an activity far removed from academia and often with a new set of people. This may provide much needed relaxation, diverting the student's mind from stress. This is supported by Gal and Lazarus (1975) who concluded, after reviewing many studies on stress, that activity during stressful periods reduces anxiety.

In the final chapter, conclusions and implications drawn from these findings will be presented, as well as suggestions for further research.
CHAPTER 6

SUMMARY AND CONCLUSIONS

Summary

This study was designed to elicit information about types, dimensions, and management of stress in Master's of Science in Nursing students. Since the author was able to find only one relevant study on Master's of Science in Nursing students, she developed an interview guide aimed at gathering descriptive data (Camooso and others, 1981). Role theory was chosen as the framework for this guide as it offered an interactional perspective, focusing on the functioning of the student within the social structure of graduate school. Two samples of Master's of Science in Nursing students were selected from the population enrolled at The University of British Columbia between 1974 and 1979. One sample was composed of eight women who graduated with a Master's of Science in Nursing degree; the second sample was composed of seven women who had withdrawn or transferred from the program. The data which were obtained retrospectively, by interviews ranging from 30 to 90 minutes in length, were subjected to content analysis. The findings are presented in Chapter 4 and are comprised of five main areas: individual variation in stress perception, role stresses, concurrent stresses, stress management, and resource networks.

Based on these findings, the researcher concludes that:
1. The majority of Master's of Science in Nursing students, in both the graduate and non-graduate samples, found graduate school stressful. Factors thought to be influencing individual variation in stress perception are personality differences, ease of role transition into the graduate student role, and the adequacy of resource networks.

2. The non-graduates experienced higher levels of role incongruity and role accumulation than the graduates.

3. Slight, but non-meaningful differences were found between graduates and non-graduates in the areas of role ambiguity, role overqualification, and role inadequacy.

4. The most frequently identified role stress for both graduates and non-graduates was role accumulation.

5. All respondents cited one or more concurrent stresses while attending graduate school. These included the workload, financial pressure, lack of knowledge of stress management, and disappointment in regard to unmet expectations about graduate school.

6. All respondents viewed family and friends as supportive of their graduate student role.

7. All respondents but one, viewed fellow students as supportive; most cited their peers as the most helpful resource in facilitating their adjustment to graduate school.

8. The majority of graduates viewed faculty as a supportive resource; the majority of non-graduates viewed faculty as indifferent.
9. Twenty percent (3/15) of the respondents viewed faculty as a negative resource which hindered adjustment to the graduate student role.

10. Both graduates and non-graduates cited problem-solving as the most frequently used method of stress management.

11. In the graduate group, physical activity ranked second in use for stress management. Role reduction and role bargaining shared third rank.

12. In the non-graduate group, role reduction ranked equal in use to problem-solving. Role bargaining ranked second and physical activity ranked third.

**Implications for Graduate Nursing Education**

Although the design of this study is such that the findings can only be considered tentative, the conclusions raise certain implications for Master's of Science in Nursing students and Master's faculty.

Despite the heterogeneity of the samples, the majority of participants in this study found the program stressful. The most frequently cited stress was role accumulation; involving conflicts in the discrepant expectations of others regarding the student and overload in terms of available time. This source of stress is likely to intensify in the future as more women who hold jobs and who are parents seek higher education to further their career goals. This study suggests that it is essential for both students and faculty to recognize the difficulties and limits of role accumulation. The need for understanding and empathy
from fellow students and faculty is crucial in assuring that students who labour under many obligations are able to adjust to the demands of graduate school. These findings are corroborated by the other single study done in this field (Camooso and others, 1981). Some students require guidance in how to prioritize their roles and manage stress effectively.

The finding that a high number of non-graduates experienced frequent role incongruity suggests an inadequacy in terms of the socialization process into graduate school or an inappropriate screening process for entry. Disappointment in regard to unmet expectations about graduate school may be a factor here. Are the demands and obligations of graduate school presented realistically by the faculty? Or is there a deficiency in the personal expectations and resources of the students themselves. Further attempts should be made to understand this phenomenon if Master's of Science in Nursing programs are to continue attracting nurses and retaining them until they are able to complete their degrees.

Other factors related to attrition appear to be the pressures of a heavy workload and financial pressure.

Finally, this study suggests that the majority of Master's of Science in Nursing students are mature and well-organized. This is characterized by their frequent use of problem-solving to manage stress, as well as the technique of role bargaining which requires a high level
of interpersonal skills. The student's maturity is further characterized by their wide use of role reduction, through which they recognized the limits of their time and abilities and curtailed their commitments to others accordingly. The use of physical activity as a stress reduction technique further suggests a broad and balanced perspective.

Suggestions for Further Research

On the basis of the findings and implications of this study, it is recommended that:

1. This study be repeated using a larger sample from a different population of Master's of Science in Nursing students to discover if the results are applicable to other schools of nursing.

2. A longitudinal prospective study be undertaken which examines the Master's of Science in Nursing student's adjustment over time.

3. Comparative research on role stress be conducted using a sample of Master's of Science in Nursing students and a sample from another field of graduate studies.

The value of this study rests in its contribution towards furthering knowledge about common sources of stress and methods of stress management in Master's of Science in Nursing students. It is hoped that this study will provide guidance to future Master's of Science in Nursing candidates and to Master's of Nursing faculty.


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APPENDIX B
Interview Guide

I would like to thank you for your co-operation in this project. Today, I want to focus on those years when you were enrolled as an M.S.N. student at U.B.C. It will be helpful to me and greatly increase the validity of the study, if you can be as accurate as possible. I am interested in the impact of stress of M.S.N. students. My questions will centre on the kinds of stresses you encountered in graduate school and the ways in which you dealt with these.

Part 1

1. What year did you enroll in the M.S.N. program at U.B.C.?

2. Was this as a part-time or full-time student?
   Did this change during the program?
   When? Was this planned?
   How long were you enrolled?

3. How old were you at the time of enrollment?

4. Were you married, living with someone, or single when you enrolled?
   Did this alter during the program? When?

5. Did you have any children when you enrolled?
   If yes, what were their ages?
   Did this change? When?

6. Did you continue to work for a salary after you enrolled?
   If yes, what did you do?
   How many hours per week?
   Did this alter? When?
7. What other commitments did you have on your time and energy when you began graduate school (possible probes: such as parents, neighbourhood, school, community involvements, student affairs)? Did these increase or decrease? Did you join any new organizations during the course of the program?

8. What year did you graduate from a baccalaureate program? Where did you complete this?

9. How long had you been residing in Vancouver, prior to enrollment in the M.S.N. program? Did you move during the course of the program? If yes, when?

10. Had you taken any courses at U.B.C. prior to enrollment in the M.S.N. program?

Part 2

1. Along with the rewards of graduate school, many M.S.N. students experienced irritation and frustration related to the external pressures and demands placed upon them. (Can you recall any irritations and frustrations which you experienced?) I'm thinking here of other commitments? Here is a list of six common kinds of stress for M.S.N. students. (Read statements with subject and check appropriate column. Was this true for you? never? rarely? often? almost always?) (Exhibit A).

2. You have identified from this list (Exhibit A) that you almost always felt....? Can you recall a specific example of this? How did you cope with this? (possible probes: What action did
you take by yourself? in conjunction with others?) Was this way of coping typical of you? Atypical? How?

3. Here is a list of five common methods used in the management and reduction of stress. You may have used some of these prior to enrollment, in anticipation of the stresses of graduate school; as well as used these methods during the course of the program itself. Please examine it and check the appropriate column. (Exhibit B).

4. In coping with the stresses of graduate school, what resources did you find helpful? Conversely, what was unhelpful? (possible probes: Did some people make it easier for you to adjust? Did some people make it more difficult? your family? your friends? other students? faculty? Were they indifferent, supportive, or negative?)

5. Is there anything else concerning the amount or the management of stress in graduate school which you feel it is important to mention?

This completes the interview. If you think of anything else relating to the role stresses you experienced in graduate school, you can contact me at 224-2656. If upon listening to the tape, I find I need further clarification, I may call you.

Thank you.
Exhibit A

Types of Stress

<table>
<thead>
<tr>
<th>Frequency of Occurrence</th>
<th>never</th>
<th>rarely</th>
<th>often</th>
<th>always</th>
</tr>
</thead>
</table>

1. Faculty expectations of the M.S.N. student are vague or poorly defined, e.g. requirements relating to a specific course are not stated clearly at the beginning of the course so that the student is uncertain what her performance should be.

2. The M.S.N. student finds that her values or attitudes concerning her performance conflict with those of faculty, e.g. the M.S.N. student, based on her self-perception and knowledge of her own needs, desires clinical experience which faculty advise against.

3. The M.S.N. student feels inadequate to meet the expectations surrounding her performance as a student, e.g. the M.S.N. student who has had no exposure to the university since she graduated ten or twenty years ago feels she has lost the necessary study skills.

4. The M.S.N. student feels over-qualified for the demands required of a student, e.g. the M.S.N. student who has ten years excellent teaching experience is required to take a clinical teaching course.

5. The M.S.N. student feels she cannot meet the conflicting or competing expectations of others, e.g. the M.S.N. student is expected to defer to her professor's opinions, yet display innovative and critical thinking.

6. The M.S.N. student is unable to fulfill all her commitments to others in the available time period, e.g. the M.S.N. student is unable to attend a mother-daughter banquet on the same evening she is to review a seminar presentation for the next morning.
Exhibit B

Management of Stress

<table>
<thead>
<tr>
<th>Frequency of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>never</td>
</tr>
<tr>
<td>always</td>
</tr>
</tbody>
</table>

1. Simple problem solving by which the M.S.N. student appraises the situation, identifies the available actions, and the possible consequences. On the basis of this appraisal she acts and then evaluates her action, e.g. the M.S.N. student is uncertain about how to proceed with a paper; she reviews the alternatives, discusses it with the professor, makes a decision, and evaluates its' effect.

2. The M.S.N. student reduces the number of her commitments, e.g. she hires a cleaning lady to look after housecleaning.

3. The M.S.N. student increases the number of her commitments, e.g. the M.S.N. student engages in a new activity in an effort to take her mind off her studies.

4. The M.S.N. student uses a "bargaining" process with another person about her expected performance in a relationship. This involves open communication in order to reach agreement, e.g. the M.S.N. student negotiates with her thesis committee re: deadlines or negotiates with her husband re: who will cook what meals.

5. Physical activity, e.g. swimming, jogging, dance, golf.