

Female Nurses' Perception Of The Effects Of Shift Schedules  
On Lifestyle Patterns

by

Judith Ann Hockney

A thesis  
presented to the University of Manitoba  
in partial fulfillment of the  
requirements for the degree of  
Master of Nursing  
in  
the School of Nursing

Winnipeg, Manitoba

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To Richard

whose love and support made this possible

## ABSTRACT

This comparative descriptive study explored female nurses' perceptions of the effects of shift schedules on their lifestyle patterns. The convenience sample consisted of 30 nurses divided into 3 groups of 10 nurses each. The three comparative shifts were the day/evening shift, the day/night shift, and straight day shift.

The conceptual framework for the study was an adaptation of the Multiple Causation Epidemiological Model. The systems concept of Riehl and Chrisman's systems developmental stress model was utilized to comprehend the mode of transmission and environmental impact of stress within the epidemiological model. The conceptual framework provided a comprehensive view of the multivariate impact of perception and shift schedule effects. The framework was useful in guiding and organizing the data.

The purpose of the study was to describe how female nurses perceive the effects of shift schedules shift schedule effects on lifestyle patterns. A 16-question interview schedule was developed by the investigator. A open-ended interview was conducted with each participant. The data were analyzed by content analysis. Seventeen categories were formed which exemplified the data. Sixteen categories

reflected concerns regarding the nurses interactional subsystem. Fourteen of the 16 categories illustrate shift schedule effects on various roles the female nurse fulfills. A major concern for the nurses was the effects of working seven straight shifts in a row. For the day/night nurses quality of time to spend with family and friends appeared to be more important than quantity of time.

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CONTENTS

ABSTRACT . . . . . v

ACKNOWLEDGEMENTS . . . . . vii

page

STATEMENT OF THE PROBLEM . . . . . 1

LITERATURE REVIEW . . . . . 6

    Shiftwork Hazards . . . . . 6

        Physiological Studies . . . . . 6

        Psycho-social Studies . . . . . 11

            Family Life . . . . . 12

            Social Life . . . . . 15

            Workers Attitudes . . . . . 17

            Conclusion . . . . . 18

    Approaches to Stress . . . . . 19

        Physiological Approach . . . . . 20

        Psychological Approach . . . . . 23

        Integrated Approach . . . . . 25

    Occupational Stress . . . . . 28

    Conclusion . . . . . 30

CONCEPTUAL FRAMEWORK . . . . . 31

METHODOLOGY . . . . . 39

    Conceptual Definition of Terms . . . . . 39

    Operational Definition of Terms . . . . . 40

        Hypothesis . . . . . 40

    Research Design . . . . . 41

    Subjects and Setting . . . . . 42

    Data Collection Technique . . . . . 43

    Method of Analysis . . . . . 44

    Validity and Reliability . . . . . 47

    Protection of Rights of Subjects . . . . . 48

THE FINDINGS . . . . . 50

    Introduction . . . . . 50

    Interpersonal System . . . . . 53

        Space . . . . . 54

        Patterns . . . . . 59

        Roles . . . . . 63

            Sexual . . . . . 63

Occupational . . . . .	67
Familial . . . . .	81
Affiliative . . . . .	99
Communal . . . . .	113
Intrapersonal System . . . . .	118
Ego-Control . . . . .	118
DISCUSSION AND RECOMMENDATIONS . . . . .	121
Introduction . . . . .	121
Intrapersonal System . . . . .	124
Interactional Subsystem . . . . .	124
Summary . . . . .	138
Limitations . . . . .	139
Implications . . . . .	140
Recommendations for Future Research . . . . .	144
REFERENCES . . . . .	147

<u>Appendix</u>	<u>page</u>
A. LETTER OF ACCESS . . . . .	154
B. REQUEST FOR PARTICIPANTS . . . . .	158
C. WRITTEN EXPLANATION OF STUDY FOR PARTICIPANTS . . . . .	160
D. CONSENT FORM . . . . .	162
E. DEMOGRAPHIC DATA . . . . .	164
Background Information . . . . .	164
Job Information . . . . .	164
F. INTERVIEW SCHEDULE . . . . .	166

## STATEMENT OF THE PROBLEM

Nurses comprise the largest sector of health care providers in the world (World Health Organization, 1978). The majority of nurses are female and are shiftworkers. Shiftwork is necessary due to the nature of the essential services that nursing provides: client care, and hospital functioning are continuous throughout the twenty-four hour day. Insufficient research exists on females' perception of shiftwork disruption and therefore ignores a large number of employees in the health care system. The majority of research conducted focuses on the physiological disruption and job satisfaction effects on male workers in non hospital settings. The investigator's study explores how female nurses perceive the effect of their shift schedule on their lifestyle patterns.

Work is a major part of an individual's life consuming approximately one third of each day. Most of this work revolves around the wake/sleep, day/night, cycle but shiftwork disregards the normal cycle of day work hours. Historically, shiftwork traces back to the earliest shepherders, temple builders, and bakers. Evolution of

technology and the industrial era have incorporated shiftwork practices to maximize cost efficiency. Essential services, expensive machine operation, and technological processes that cannot be disrupted have made shiftwork a necessity (Harrington, 1978; Rutenfranz, 1976; Tasto, 1978). Ideally, all work should be performed during the daylight hours, but this is not possible in today's society. Employers, psychologists, physiologists, nurses, and employees collectively have expressed the growing need for valid information on the effects of shiftwork and the disruption it creates both physiologically and psychologically.

The study provides exploratory data which enhances insight into female nurses' perceptions of the effects of shift schedules on their lifestyle patterns. The data obtained contributes to existing knowledge in the discipline of nursing. Perception of shiftwork effects on lifestyle patterns contributes to further knowledge of factors relating to possible job dissatisfaction, job stress, and high staff turnover rates. Job dissatisfaction, stress, and high attrition rates continue to plague nursing and the delivery of health care. These factors merit attention because of their consequences in terms of quality of care compromises and resulting economic costs. There is not enough known about these factors. Research is the key to understanding these problems.

As early as 1917, research concerning shiftwork hazards was initiated by the Health of the Munitions Workers Committee of Britain. This committee noticed that physical complaints and illnesses were significantly higher with shiftworkers (Harrington 1978). Harrington's (1978) review of the literature reports the post World War II era made available time and money, in both the United Kingdom and America to investigate physiological studies relating to shiftwork. There are extensive studies investigating the physiological effects of shiftwork; For example, altered circadian patterns, altered sleep patterns, and altered gastro-intestinal functioning. patterns, and gastro-intestinal disruption involving shiftwork (Carpentier, Cazamian, 1977; Harrington, 1978; Rutenfranz, Knauth, Colquhoun, 1976; Wojtezak-Jaroszowa, 1977).

Circadian rhythm disruption has received widespread attention. Circadian rhythms were originally described by Gierse in 1842 (Cohn, 1981). Basically circadian rhythms describe the 24 - hour rhythmic pattern of all the body's organs and functions that reflect the day/night cycle. Scientists who have investigated circadian rhythms agree that rhythm patterns are altered when shiftwork is performed (Felton, 1975; Harrington, 1978; Hawkins, Armstrong-Esther, 1978; Ostberg, 1973; Schwartz, Gainer, 1981; Wojtezak-Jaroszowa, 1977). These scientists believe this basic disruption in circadian rhythms over the 24 hour cycle is the basis of the shiftworker's major difficulties.

The most frequent complaint of the shiftworker is sleep disruption in the form of insomnia, and fitful sleep (Carpentier et al, 1977; Harrington, 1978; Wojtezak-Jaroszow, 1977). However, Wyatt and Marriot (1953) observed that changes in eating patterns were perceived by the worker to be more distressing than sleep disruption. An alteration in their eating patterns because of shiftwork caused problems such as upset dietary habits and lack of appetite. Resultant gastro-intestinal difficulties ranged from mild indigestion to aggravating stomach ulcer formation (Harrington, 1978; Rutenfranz et al, 1976; Tasto et al, 1978). Other disorders such as constipation, hemorrhoidal afflictions, and dyspeptic disorders were found to be two to three times higher in shiftworkers (Harrington 1978). As a result of these physiological studies researchers realized social disruptions also occurred (Tasto et al, 1978).

Banks (1956), Downie (1963) and Bast (1960) all noticed that the majority of employees have negative attitudes toward shiftwork. Social lifestyle patterns revolve around the light/dark cycle, and shiftwork interferes with these social patterns. Here adjustments must be made, not only by the worker, but also by the employee's family. An increasing body of knowledge is being accumulated to illustrate how the shiftworker and the family alter social interaction patterns to accommodate shift schedules. Mott (1976) found that shiftworkers have fewer informal friends and participate less in formal community groups.

Tasto and Colligan (1978) note that the literature on perceived social disruption due to shiftwork is scant and subjective. Very few of the studies have undertaken a systematic analysis of the factors involved (Harrington, 1978). The majority of studies which have been conducted have centered on male perceptions and job satisfaction.

Studies focusing on male perception of social disruption due to shiftwork have identified certain trends. For example, shiftwork interferes with their roles of husbands and fathers (Mott, 1975; Landry, 1981). Another notable trend is that the majority of families alter their schedules to accommodate the male shiftworker. At present researchers do not know if female shiftworkers perceive their work schedule as interfering with their roles as wives and mothers. Researchers also do not know if a female shiftworker's family alters their schedule to accommodate her. These are merely examples of areas that need further research.

The research question this study addresses is: "How do female nurses perceive the effect of their shift schedule on their lifestyle patterns?" The method of data collection was an open-ended semi-structured face-to-face interview by the investigator. A convenience sample of 30 female nurses employed in shift schedules were interviewed. The study was qualitative in nature and comparative in design, in order to provide factor searching data on female nurses' perceptions of the effects of shift schedules on lifestyle patterns.

## LITERATURE REVIEW

In recent years shiftwork hazards have been actively researched by both management and labour. The review of the literature focuses on the physiological and psycho-social effects due to shiftwork practices. Literature which critically analyze the causes of physical ailments is documented followed by an indepth appraisal of social dysfunction due to shiftwork. Next, a description of the various approaches to the stress process which supports the conceptual framework for this study is presented.

### Shiftwork Hazards

#### Physiological Studies

Circadian rhythm disruption due to shiftwork has received widespread attention. Circadian rhythms were originally described by Gierse in 1842 who noted that all organs and functions of the body follow a 24-hour rhythmic pattern (Cohn, 1981). These circadian rhythms reflect a number of bodily processes that include temperature, pulse, blood pressure, urine flow, certain endocrine functions, and some blood constituents (Tasto et al, 1978). These biological rhythms reflect a complete cycle in approximately 24 hours. Hoskins (1981) states that one of the most obvious rhythms

in humans is the basic rest and activity cycle that is synchronized to the alteration between light and darkness. Adjustment to disruptions in these circadian rhythms may take an individual days, weeks, or in extreme cases, adjustment may never occur (Tasto et al, 1978).

Scientists agree that shiftwork alters circadian rhythm patterns of the worker. Night workers' circadian rhythms appear to be effected the most by night work (Cohn, 1981; Felton, 1975; Harrington, 1979; Hawkins, Armstrong-Esther, 1978; Hoskins, 1981; Ostberg, 1973; Rutenfranz, Knauth, Colquhoun, 1976; Schwartz, Gainer, 1981; Wojtezak-Jaroszowa, 1978). A pilot study conducted by Hawkins and Armstrong-Esther (1978) exemplifies the disruption of short term memory and body temperation that occurs when working the night shift. A group of 11 nurses working the first seven nights of duty were sampled. Hawkins and Armstrong-Esther (1978) found the nurses short-term memory performance was significantly impaired on the first night, and improved continually on successive nights. However, after seven nights body temperature still had not adjusted. Rutenfranz, Folkard, Knauth, and Monk (1976) conducted an experimental study on the performance of two male subjects employed on a rapidly rotating shift system. Three versions of a new performance test involving a paper and pencil visual search task, varying in degrees of difficulty comprised the memory loads. The tests were administered four times per shift in

order to measure short term memory and body temperature. The researchers found that with the low memory version performance showed a high positive correlation with body temperature. Performance was poor during the night shift. However, with the high memory load version, performance was negatively correlated with temperature. Performance was best during the night shift. This limited study shows that short term memory and body temperature are disrupted by shiftwork.

Schwartz and Gainer (1981) established that a prolonged physiological disruption of circadian organization can result in lesions of the hypothalamus. Schwartz and Gainer (1981) also suggest that continual disruption in circadian rhythms alter temperature curves, gastro-intestinal functions, and cardiovascular alterations. Further studies have been conducted which exemplify other physiological effects such as altered sleep patterns.

Sleep disruption is the most frequent complaint of the shiftworker (Carpentier et al, 1977; Harrington, 1978; Rutenfranz, 1976; Wojtezak-Jarosczoza, 1977). According to Rutenfranz et al (1976), Kliezman found that nightwork and daysleep effect the individual's sleep-wake pattern which is one of the most important circadian rhythms. The sleep time of people who engage in shiftwork is often disturbed by traffic noise, children, telephones, and household noises. Sleep disturbances consist of lowered number of sleep hours, and a decrease in the quality of sleep. A decrease in the

quality of sleep is a deciding factor that influences the adaptation of the worker to rotational shiftwork.

Menzel (1962) noticed married men who worked the night shift averaged four-to-five hours sleep. Single men who worked night shift and had to provide for themselves at home only averaged 2-3 hours of sleep (Rutenfranz et al, 1976). Carpentier and Cazamian (1977) also noted sleep time for the shift worker is usually shorter by at least two-three hours working a rotational shift. found that the later the shiftworker goes to bed, the shorter the duration of sleep because waking occurs at a more or less fixed hour, whatever the time of going to bed. The shorter hours a shiftworker sleeps as compared to non-shift workers may be explained by the fact that a person wakes at a fixed hour. Carpentier et al (1977) found day sleep for the night worker is not only shorter but fragmented. Daysleep appears to be fragmented because the rhythm of appetite for food interferes with the rhythm of sleep. Hence shiftwork, especially night work, disrupts sleep patterns.

Another major complaint of shiftworkers is the disturbance in eating patterns and the resulting gastrointestinal problems. Some epidemiologists believe that there is evidence shiftwork exacerbates rather than initiates gastro-duodenal ulceration (Carpentier et al, 1977; Harrington, 1978). Maurice (1965) states ulcer diagnosis is complex; therefore results that shiftwork

causes ulcers may be contradictory (Harrington, 1978). Other gastro-intestinal disorders such as dyspeptic disorders, constipation and hemorrhoidal afflictions were found to be two to three times higher in shiftworkers than non-shiftworkers (Harrington, 1978). The night shift severely disrupts the circadian rhythm of nutrition. Meals are consumed when the body is in a period of digestive deactivation resulting in gastro-intestinal disturbances.

Other effects such as fatigue, sleeplessness, irritability, bad temper, and nervousness can be attributed to shiftwork (Tasto et al, 1978). Fatigue and its relationship to safety has received extensive attention. Carpentier and Cazamian (1977) noted that shiftworkers are prone to over-fatigue due to the fact they work in a state of nocturnal deactivation, and sleep in a state of diurnal reactivation. Kubler (1967) demonstrated that the rate of serious accidents is higher during the nightshift (Carpentier et al, 1977). Andlauer and Fourre (1962) have attributed the higher accident rate to a decline in brain activity at night (Carpentier et al, 1977). Aluisi (1972) and Aschoff (1969) conclude errors, and accidents, and miscalculations are more frequent during the low point of a worker's circadian cycle.

Other areas such as age and sex of individual workers and their influence on the health of a shiftworker need to be explored. Harrington (1978), following his critical review

of the literature, states there is a need for further studies directed at sex-specific health problems. Tasto et al (1978) also suggests that the sex of an individual may contribute to different health problems.

Shiftwork causes definite disruption in circadian rhythm function, sleep patterns, and eating patterns. As a result of these physiological studies, a question has been raised as to psycho-social dysfunction due to shiftwork practices.

#### Psycho-social Studies

Both positive and negative attitudes concerning family, social functioning, and shiftwork have been documented. Blakelock (1960), Taylor (1967), and Wedderburn (1967), generally found positive attitudes to shiftwork, especially among those working the morning shift (Tasto et al, 1978). On the otherhand, Banks (1956), Bast (1960), and Downie (1963) found that the majority of attitudes toward shiftwork were negative (Tasto et al, 1978). Reasons for the varying attitudes on shiftwork may reflect numerous interacting variables such as culture, type of work, length of time on the job, and type of industry. Tasto et al (1978) state "although the absolute percentages of satisfied versus unsatisfied subjects varies from study to study, close scrutiny of the data suggests certain trends" (p.11). For example, Mott et al (1965) found satisfaction appears to be a direct function of length of time on shiftwork.

Harrington (1978) comments that researchers have noted social disruption caused by shiftwork, but very few have undertaken a systematic analysis of the factors involved. The literature review includes studies which reflect social disruption in family life, social life, and workers attitudes.

#### Family Life.

Tasto and Colligan (1978) revealed that workers viewed a number of family life problems, as the effects of shiftwork. Carpentier and Cazamian (1977) noted that Chazalette in 1973 found that 60% of male night workers on rotating shifts stated that they were more inconvenienced in their family life than in any other respect. The disruptions they noted were mainly in the practical organization of day to day domestic life and family relations.

##### a) Practical Organization of day-to-day domestic life

The disruption of the practical organization of day to day domestic life results from the discordance between the timetable of the male worker's schedule and his family's timetable (Carpentier et al, 1977). If the worker conforms to the family's timetable he often interrupts his sleep or meals. On the other hand, when he follows a routine independent of the family he rarely communicates with them (Carpentier et al, 1977). Carpentier and Cazamian (1977) demonstrated only 1 out of 91 families did not adjust their

activities around the shiftworker's rest periods. Therefore the majority of families alter their lifestyle to accommodate the worker.

Wives of shiftworkers find adjusting to the worker's schedule to be a burden (Carpentier et al, 1977; Harrington, 1978). Carpentier and Cazamian (1977) demonstrated 24% of workers with 1 child, 40% of workers with 2 children, and 50% with 5 or more children experienced difficulties in family adjustment to the worker's schedule. Banks (1956) and Chazalette (1973) noted that if the wife is less dependent on the male worker the worker adapts better psychologically to night shift (Carpentier et al, 1977).

#### b) Family Relations

Family relations appear to be disrupted by shiftwork as reported by Carpentier et al (1977), Harrington (1978), Landry (1981), Mott (1976), Wojtezak-Jaroszowa (1977), and Tasto et al (1978). Each shift seems to have its particular disadvantage in family relations. The afternoon shift disrupts the role of father (Wojtezak- Jaroszowa, 1977). Mott (1976) also found that the afternoon shift is more difficult for the young worker who is better educated and has a young family. The difficulty with the afternoon shift may be due to the apparent importance a young worker with a high level of education places upon his role as a father. Carpentier and Cazamian (1977) note that the greater the disturbance that shiftwork places on a male worker's

perceived role of husband and father, the greater his psychological disequilibrium.

The evening shift disrupts the worker's role as husband (Wojtezak-Jaroszowa, 1977). Bast (1960) and Mott (1976) both noted the major problem in family functioning is the shiftworkers absence from the home in the evening (Tasto et al, 1978). Wives of shiftworkers state they assume the bulk of responsibility in domestic and child care practices (Carpentier et al, 1977; Mott, 1976). Sexual activity in both married and single shiftworkers appears to be disrupted, especially by night work (Carpentier et al, 1977; Harrington, 1978; Mott, 1976; Tasto et al, 1978; Wojtezak-Jaroszowa, 1977). Employment preference by workers for the night and afternoon shift schedules have been documented even though results of studies have exhibited these shifts disrupt family life (Mott, 1976; Wojtezak-Jaroszowa, 1977). Wojtezak-Jaroszowa (1977) suggests people with marital problems prefer the afternoon and night shifts in order to avoid spouse and family.

Mott (1976) concluded that marital happiness is a crucial factor in helping the male shiftworker live comfortably with his work. Mott concluded that marriages with problems cannot have the flexibility necessary to accommodate shiftwork. Lack of marital flexibility may contribute to the high divorce rate among shiftworkers. However it is difficult to confirm these statements due to the multi-factorial nature of marital disharmony (Mott, 1976).

### Social Life.

Maurice and Monteil (1965) and Chazalette (1973) noted that night shiftworkers often express a sense of malaise and isolation (Carpentier et al, 1977). Shiftworkers appear to have greater difficulty making new friends and tend to have fewer friends than day workers (Harrington, 1978). According to Carpentier and Cazamian (1977) friends and social relationships are at two levels the formal and informal level. Carpentier and Cazamian (1977) distinguish between studies which focus on informal and formal relations.

Informal relations encompass relationships with friends. Mott (1976) noted there was no appreciable difference between night shiftworkers and day workers regarding the number of visits to their friends, but shiftworkers find that their circle of friends is smaller. Chazalette (1963) found 64% of night shiftworkers had a lower number of social contacts and excursions. Shiftwork employees in large institutions feel less isolated from social life than workers in small industries, due to co-worker support (Carpentier, Cazamian, 1977).

Formal relations consist of activities which require membership and member attendance such as sports, unions, and political parties. Shiftworkers tend to exclude themselves from such groups because they cannot attend in a normal way

(Carpentier, Cazamian, 1977). If groups meet frequently the shiftworker finds it more difficult to belong. Hence shiftworkers, if they do belong to such groups, rarely fill management roles; for example, the vice-president or chairperson role (Carpentier et al, 1977). Carpentier and Cazamian (1977) noted that wives of shiftworkers belong to fewer organized associations. However, a French study by Maurice and Monteil (1965) has not demonstrated any significant difference in shiftworkers' and day workers' memberships in social organizations (Carpentier et al, 1977). Cultural differences between France and the United States may account for the difference in the above findings.

Leisure activities pursued by night shiftwork employees tend to be individualistic activities such as reading, gardening, and fishing (Carpentier et al, 1977). Communal activities such as shopping, family excursions, and reunions must be scheduled around the shiftworker or he cannot attend. As Harrington (1978) suggests, community life revolves around the light/dark cycle. Family communal activities, sports, and cultural events, and social interaction patterns are geared to the same cycle.

"It is perhaps ironic that as industrialization progresses and more emphasis is placed on leisure time and less on work, shiftworkers, a product of that increased mechanism, are the ones least able to benefit by it" (Harrington, 1978; p. 106).

### Workers Attitudes.

Research on the psychological aspects of shiftwork is scant (Tasto et al, 1978). What has been done focuses on job attitudes. Tasto et al (1978) state worker's attitudes comprise numerous interacting variables such as length of time on the job and type of industry and skill level required. Harrington (1978), in his critical review of the literature, expands further by stating workers' attitudes are inextricably tied to family and social factors. Studies on workers' attitudes often summarize work, pay, shift schedules, and conditions of shiftwork as a barometer of worker opinion (Harrington, 1978).

Investigators have found both positive and negative attitudes toward shiftwork. Certain trends however, have emerged. Mott (1965) found that the degree of satisfaction is related to the length of time on shiftwork, as well as to education and skill level. Harrington (1978) noted that most researchers conclude employees do not like shiftwork, but there are degrees of negativity. Shiftworkers register a significantly higher number of complaints about their work than non-shiftworkers (Harrington, 1978).

There is a need for studies focusing on personality characteristics of workers who adjust to shiftwork. Ostberg (1973) found that extroverts appear to exhibit the best adaptation to shiftwork. However Harrington (1978) noted

that Froberg and Lier (1972) found no clear correlation between those who adapted best and those who liked shiftwork. Bast (1960) noticed that job satisfaction decreased as neuroticism increased. Tasto et al (1978) concluded that shiftwork satisfaction may be a function of personality.

### Conclusion.

Multiple studies have shown the detrimental physiological effects of shiftwork on the employee. These effects include upsets in the circadian rhythms, disruption in sleeping, and eating patterns, fatigue, irritability and nervousness. The review of the literature has shown that researchers comment on the detrimental effects of the social disruption caused by shiftwork. However, very few have undertaken a systematic analysis of the factors involved by this disruption (Harrington, 1978). Precise information regarding the effects of shiftwork on family and social life are scarce. There is a need for studies to isolate factors which are perceived by shiftworkers as important to family and social life.

The majority of studies published target the male population. Female shiftworkers have been neglected in the reported studies. There is a need for exploratory studies on female perception of family and social disruption. Studies which have included females have measured job satisfaction.

Tasto et al (1978) studied nurses and food handlers of both sexes. However, results were not investigated by sex but by the type of shift worked and measured job satisfaction. They stated data generated on lifestyle patterns were consistent with other studies.

Mott (1975) and Landry (1981) state that men perceive shiftwork as interfering with their roles of husbands and as fathers. Do women perceive shiftwork as interfering with their roles of wives and mothers? As noted earlier, 90 in every 91 families alter their schedules to accommodate the male shiftworker (Harrington, 1978). Does this occur in families of the female shiftworker? Carpentier and Cazamian (1977) concluded it was the disturbances of family relations which was the most distressing aspect of shiftwork, and it was only tolerated because the wife did not have a paid job outside the home. Therefore, she alters her routine to accommodate the worker. Is this true for husbands of female shiftworkers? Do female shiftworkers perceive shiftwork as a disrupting factor in their lifestyle patterns? These are just a few questions that need to be answered.

### Approaches to Stress

The concept of stress is ambiguous and often misused. Professions such as psychology, psychiatry, pharmacology, anthropology, and more recently ergonomics have devoted time and resources into stress research. Occupational or job

stress is prevalent in any work setting. Usually it is recognized by employees as an unavoidable frustration in their daily lives. In order to understand occupational stress the concept of stress has to be addressed.

Stress is not necessarily detrimental to an individual's well-being. Stress can provide the energy necessary to perform the tasks essential in maintaining life, as well as to resist and to adapt to the ever changing external influences in one's life. As a result we must not, and cannot, avoid all stress. However, the stressor may result in stress overload and the person may not adapt. Stress maladaptation and stress overload experienced by the person are what concerns the health profession.

There is still no one universally accepted definition of stress. Historically three scientific approaches have been formulated and researched. The following literature review section examines three scientific approaches: the physiological, psychological, and interactional views.

#### Physiological Approach

The physiological approach to stress focuses on response based reactions of the body to stress. As early as 1909, Cannon demonstrated that an individual reacts to stressors with a physiological preparation to fight or flee (McLean, 1979; Selye, 1976). In the 1930's Hans Selye emerged as a

pioneer in stress research. Some experts suggest that Selye coined the term stress (McLean, 1979). However Selye's concept of stress went through several modifications as he attempted to define it (Mikhail, 1981). Selye's (1976) theoretical definition is that stress is the nonspecific physiological response to any demand made upon the body.

Selye's stress theory contains three basic concepts (Mikhail, 1981). First Selye (1976) states that the physiological stress response does not depend on the nature of the stressor. Second, the response syndrome of the body represents a universal pattern of defense reactions that progress through identifiable stages. Finally, if these defense responses are severe and prolonged a disease state results (Cox, 1978; Mikhail, 1981; McLean, 1979). Selye (1976) developed the General Adaptation Syndrome (G.A.S.) theory in response to the three identifiable stages of the body's reaction to stress. The G.A.S. is the defense reaction that the body adopts in trying to adjust to stress.

The first defense stage is one of alarm reaction. The body exhibits definite characteristics such as adrenaline output after initial exposure to the stressor. Resistance signifies the second stage of the G.A.S. Resistance occurs when the body reactions of the alarm stage disappear and are replaced by changes marking adaptation. Exhaustion signals the third and final stage of the G.A.S. Exhaustion occurs because the adaptive energy of the body is finite. If the

stressor is severe enough or lasts long enough the body will eventually become exhausted and will no longer be able to respond (Bailey, 1980; Grout, 1980; McLean, 1979; Mikhail, 1981; Selye, 1976; Smythe, 1984). Selye's prime focus in stress research has been on the physiological response (reactions) rather than on its stimulus or causative agents (Mikhail, 1981).

The nonspecificity of the stress response has been a subject of controversy (Mikhail, 1981). Mason (1975) demonstrated that there appears to be no single hormonal response to any neuroendocrine system which occurs non-specifically as a common element (Cox, 1978; Grout, 1980; Mason, 1975; Mikhail, 1981). Mason's findings challenge the broadness of the non-specificity of the stress response. Mason (1976) also noticed that when psychological factors mediated by emotional arousal concurred with the situational stressor there was a sharp increase in hormonal response (Grout, 1980; Mikhail, 1981). Lacey (1967) also demonstrated that changes in physiological stress were signified by a multiplicity of reactions determined by organismic and situational variables. McGrath (1970) and Levi and Kagan (1971) demonstrated several weaknesses generally associated with strictly defining and studying stress physiologically. McGrath (1970) states that any stimulus which produces the stress reaction is a stressor, and it could also be confused as a stress reaction such as

common emotion and fatigue. Researching the stimulus or the stressor is crucial to understanding the stress process. The physiological approach to stress does not address the role of the situational and organismic variables which interact to stimulate a stress state.

### Psychological Approach

The psychological approach to stress focuses on the perception of the stressor (stimulus) of the stress state. As early as 1945 two psychiatrists, Grinker and Spiegel, made clinical observations of combat fliers during W.W.II. They found perception of combat stressors dictated the psychosomatic symptoms of the fliers. Grinker and Spiegel's (1945) study results demonstrated the influence of perception on the stress process. Grinker and Spiegel's study stimulated further research on the psychological aspect of the stress process.

Haggard (1949) described characteristics such as the nature of an individual's early experiences, personality structure, knowledge of the stressor and motivation to adapt as integral to the stress response and future adjustment (Haggard, 1949; Mikhail, 1981). Janis (1958) also described the role of perception, personality characteristics, and life experiences as being crucial to the stress process. Researchers have demonstrated that personality characteristics and early life experiences greatly influence

the psychosomatic stress reaction (Cox, 1978; Grinker et al, 1945; Mikhail, 1981).

Mikhail (1981) states that three important aspects of stress were identified in the 1950's. First, individuals react differently to stress. Second, stress is determined by the perception of an individual to a stressful situation, rather than by the situation itself. Third, the extent of the stress process partly depends on an individual's ability to cope. These three ideas are demonstrated in Lazarus's 1966 publication "Psychological Stress and the Coping Process". This publication marked a shift towards the recognition of the psychological approach to stress (Cox, 1978; Grout, 1980; McLean, 1979; Mikhail, 1981).

Lazarus (1966) identifies perception as the key characteristic of stressful situations, especially if a situation threatens a person's most valued goals (Cox, 1978; Grout, 1980; McLean, 1979; Smythe, 1984). Lazarus concludes that stress reactions are mediated largely by perception and are specific to particular types of cognitive appraisal. The individual's cognitive appraisal is as crucial to understanding stress as the situational demands which are thought to cause the stress process (Grout, 1980; Lazarus, 1976). The significance of perceptions in stress states is reflected in the differing responses of individuals to the same environmental demands.

McGrath (1970) and Sells (1970) established the importance of perception in understanding stress. According to Sells anticipation, involvement, and assessment of the consequences influence perception, and these factors are key to the outcome of the stress response (Mikhail, 1981). The psychological approach addresses the cognitive appraisal of a demand-capability imbalance by an individual which determines the stress response and outcome. Individual differences in perception present the greatest difficulty in stress research.

The concept of stress deals with more than the perception of a situation. The physiological and psychological stress response of an individual needs to be understood. The recognition of the weaknesses inherent in studying stress by focusing on the psychological or the physiological approach has influenced the emergence of the integrated approach, which addresses the stimulus, perception, and response of stress.

### Integrated Approach

An integrated approach to stress provides a link between the physiological and psychological theories. Psychological theories of stress provide the conditions necessary for stress activation, while physiological theories focus on the adaptive reactions to stress. An integrated approach has been espoused since the early 1970's (Cox, 1978). Various

theorists have discussed the integrated concept of stress while focusing on either the psychological or physiological approach. For example, Levi and Kagan (1971) constructed a model of stress which described psychological factors that can cause physical disorders (Cox, 1978; Mclean, 1979). Levi and Kagan (1971) focused on the nonspecific response concept outlined by Selye, but found that the psychological stimuli and the psychobiological makeup of an individual determined the occurrence of the stress response (Cox, 1978; McLean, 1979).

Cox and McKay (1978) developed a man-environment transaction theory while focusing on the psychological processes of stress. Cox and McKay's theory involves five stages of transaction between a person and the environment (Cox, 1978). The first stage involves specific sources of demand between the individual and his environment. The sources of demands can be internal or external, depending on whether the person striving is fulfill his/her psychological and/or biological needs.

The second stage describes the importance of the individual's perception of the demand and his/her own ability to cope. In other words stress arises when there is an imbalance between the perceived capability and perceived demand. The third stage focuses on the perceived demand which stimulates emotional experience of the physiological changes. Therefore, psycho-physiological changes result

after the perceived demand capability response. Actual as well as perceived consequences of the coping process comprise the fourth stage. The fifth stage addresses how feedback occurs at all stages of the stress process. The feedback effects the outcome of each stage. The stages reflect the psycho-biological concepts of stress which reflect an integrated approach to stress (Cox, 1978).

The integrated approach to stress is compatible with the holistic view of health. Holism is derived from the Greek word 'holis' meaning whole. Holistic health recognizes that every aspect of an individual interacts with their environment at any point in time (Flynn, 1980). Holism is a comprehensive view of the interacting systems in a person's total environment. Holism and the integrated approach to stress emphasizes the total interplay of an individual's psychological and physiological spheres with his/her environment.

Mikhail (1981) provides a holistic definition of stress

"stress is a state which arises from a actual or perceived demand-capability imbalance in the organisms' vital adjustment actions and which is partially manifested by a nonspecific response" (pg. 14).

Mikhail's (1981) integrated definition of stress does not overemphasize the nonspecificity aspect of stress. Mikhail concludes that every stress reaction is nonspecifically activated. Mikhail's integrated approach gives Selye's G.A.S. theory the breadth needed to encompass the total

stress concept. The integrated approach to stress unites the psychological and the physiological theories of stress.

### Occupational Stress

Carl Zenz (1980) describes occupational stress as "the sum of the factors in the work place that affect the psychological and physiological homeostasis of the worker" (p.197). Stress factors may be inherent in physical working conditions, or may result from administrative policies regarding career development patterns (McLean, 1979; Zenz, 1980). Research results prove that there is a definite relationship between job stressors and physical and emotional alteration in individuals (McLean, 1979).

Responses to job stress have been measured by performance appraisals, biochemical tests, psychological self-ratings, and retrospective epidemiological studies (House, 1981; McLean, 1979). Levi (1974) demonstrated job stressors affect physical reactions that can be potentially damaging. Levi controlled 32 senior military officers' stress environments. Levi (1974) did this by imposing a regimen of intellectual and psychomotor tasks on the participants with no allowances for sleep, stimulants, relaxants, or exercise. He found significant biochemical changes occurred when anxiety levels increased (Levi, 1974).

Weiman (1977) correlated perceived occupational stressors with disease, and/or the risk of disease (McLean, 1979). Weiman (1977) studied executives of a major company who periodically underwent examinations and filled out questionnaires reflecting occupational stressors. Executives who scored low and high on the examinations and questionnaires had a significantly higher incidence of medical problems. Weiman's data suggest individuals who are understimulated and who are over pressured experience stress reactions (McLean, 1979).

Above are just two examples of research in occupational stress. The integrated approach to stress serves as an excellent guide in determining job stress. Work environment, individual perception, and ensuing demand-capability imbalance decides the outcome of occupational stress. McLean (1979) states that stressors at work are pervasive but are perceived differently by every individual. What reacts as one person's stimulant might be another's stressor. Research must address perceived stressors as well as actual physical stressors such as accidents to comprehend the impact of occupational stress.

### Conclusion

Three scientific approaches to stress have been discussed. Conceptually shiftwork is an occupational stressor which initiates a stress response. The adaptation of the multiple causation epidemiology model by the investigator reflects an integrated approach to the stress process. The adaptation of the multiple-causation-epidemiology model illustrates a multifactoral process of stress which utilizes perception as a key to understanding the differences of adaptation to stress.

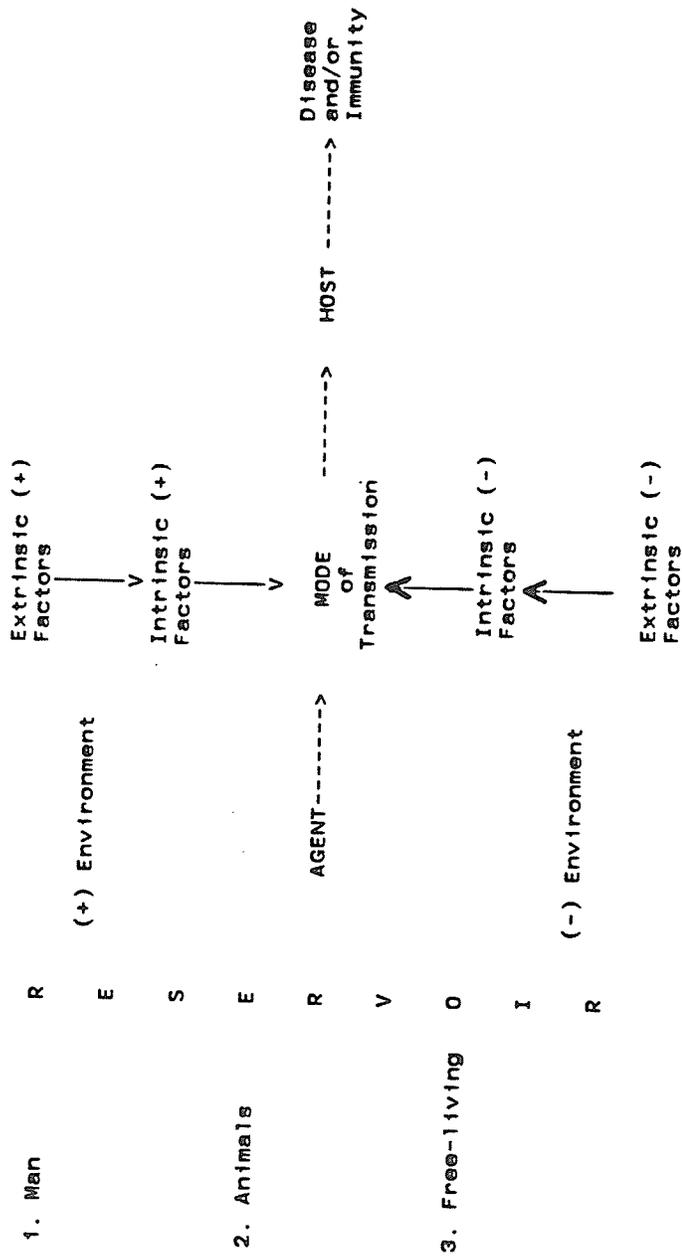
## CONCEPTUAL FRAMEWORK

The stress process has generally been recognized as being influenced by a multiple of interacting factors within an individual's environment. Perception of a stressor stimulates the stress response. Environmental factors influence the type of response and ensuing adaptive behaviors. Conceptually, an epidemiology model has been adapted to provide a framework to comprehend the stress process.

The epidemiological multiple causation model has been adapted because it provides a simple but broad and comprehensive view of the biological, psychological, social, and physical aspects of human functioning that effect health and illness. This view is consistent with the holistic integrated approach to stress, as a multifactoral process.

Simply the multiple causation model describes the dynamics of the agent, host, and environment. The model (see Figure 1) depicts a linear approach involving the agent, mode of transmission, host, and outcomes.

Multiple Causation Model\*



\*Schuman, L.M. (1961) Appendix A, in M. Corrigan, & L. Corcoran, (Eds), Epidemiology in nursing Washington, D.C.: The Catholic University of America Press, (323)

fig.(1)

The reservoir acts as the setting which supplies the agent. The agent is the source of disruption that creates a stimulus to produce change. Mode of transmission is the method in which the agent affects the host. The person who is afflicted with the agent is the host. Environment establishes the place and circumstances under which change is produced by the agent. Biological, physical, socioeconomic, and psychosocial interactions occur within the environment. These interactions can have a positive or negative impact on the host. The results are changes that occur to the host's adjustment to the agent.

The multiple causation framework has been adapted by introducing parts of Riehl and Chrisman's(1974) systems development stress model. The systems concept of this stress model has been utilized to comprehend the mode of transmission and environmental impact on stress within the epidemiological model. Basically Riehl and Chrisman's(1974) model provide a conceptual approach to stress that guides the nursing process. Their model consists of a structure and process guide. The systems theory used in the structure concept has been adapted to the epidemiological model.

Adaptation to Multiple Causation Model

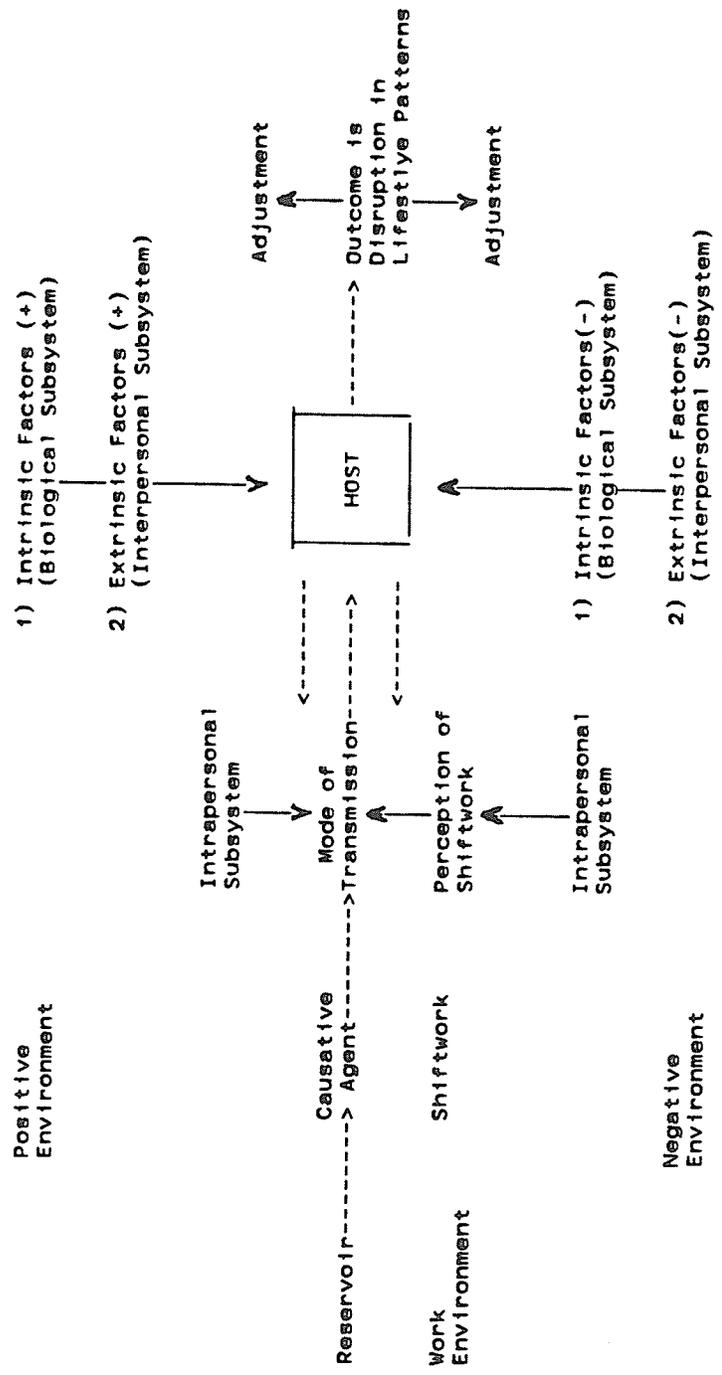


fig.(11)

Riehl and Chrisman's(1974) structure reflects a systems-developmental approach that incorporates assumptions, ethical principles, and values important to nursing. Riehl and Chrisman(1974) believe that man exists within a framework of change. They state "man can be conceptualized as a system moving through time and developmental stages"(Riehl et al, 1974;pg.284). Man is also comprised of interlocking biological, interpersonal, and intrapersonal systems which are open to the environment and subject to change at any point in time (Riehl, 1974). They believe that to focus on the total person an investigator must analyze the:

1. biological, interpersonal, and intrapersonal systems
2. interactions of these systems and
3. relationships among the systems, time, and the environment (Riehl et al, 1974; p.249).

These systems are organized in such a way as to analyze the interdependent aspects of a given condition. They can be separated to be studied independently. It is the biological, interpersonal, and intrapersonal systems which have been used to expand the epidemiological model.

The intrapersonal system influences the mode of transmission(see Figure 2) which is perception. Perception is comprised of the subsystems of the intrapersonal system. These are the individuals:

1. World-life view e.g. optimism, fatalism
2. Self-concept
  - a) body image
  - b) self-awareness
  - c) self- esteem
3. ego controls, e.g. passive-aggressive
4. Religio-spiritual view, e.g. religious beliefs
5. Intelligence (Riehl et al, 1974; p.250)

The biological and interpersonal subsystems influence the environment concept. Analysis of the biological system provides the following subsystems:

1. Cardiovascular
2. Gastrointestinal
3. Genitourinary
4. Integumentary
5. Motor-skeletal
6. Neurological
7. Respiratory
8. Endocrinologic
9. Immunologic
10. Other (Riehl et al, 1974; pg.249)

These divisions provide a useful guide to physiological dysfunction and medical diagnostic categories.

The interpersonal system reflects social variables and their interaction with the biological and interpersonal

systems. Interpersonal subsystems include the following areas:

1. Cultural
2. Socioeconomic
3. Interactional
  - a) space, e.g. territoriality
  - b) patterns, e.g. play, dependency-independency
  - c) roles
    1. sexual
    2. occupational
    3. familial
    4. affiliative
    5. communal (Riehl, 1974; p.250).

These systems strengthen the multiple causation model by emphasizing that the subsystems are dynamic and interrelate with every aspect of life. Also these systems attempt to maintain stability within change (Riehl et al, 1974). This adaptation encourages the investigator to realize the multitude of factors that affect a person at any given point in time.

Schematically the adaptation of the multiple causation model is presented in figure 2. For the purpose of this study the occupational environment is the reservoir. Shiftwork is the causative agent or stressor. Perception is the learned pattern of behaviors that interpret the

intensity of the stressor, which becomes the mode of transmission. The host is the employee. The environment can have a positive or negative impact on the adjustment behaviors of the host. Perception and environment reflect the multitude of factors that affect the stress process. The outcome is dependent upon the host's coping strategies which are influenced by the environment.

The adaptation provides a comprehensive conceptual framework for outlining the stress process. Presented in this model is how a stressor effects the host plus how intervening variables that effect the outcome. The epidemiological framework targets "at risk" hosts with emphasis on the perception of a health and intervening environmental factors (Lauzon, 1977).

## METHODOLOGY

In view of the limited research conducted on female perception of the effects of shiftwork on lifestyle patterns, the study is at the explorative-descriptive level of enquiry. The study explored the question "How do female nurses perceive the effects of their shift schedule on their lifestyle patterns?" The chapter includes the conceptual and operational definitions, hypothesis of the study, research design, sample and setting, data collection, methods of analysis, and ethical considerations.

### Conceptual Definition of Terms

1. Occupational Stressor -for the purpose of this study occupational stressor refers to shift schedule as a factor in the work place which effects the psychological and physiological balance of the nurse
2. Perception -refers in this study to the learned patterns of behavior which interpret the intensity of a stressor
3. Lifestyle Patterns -are those activities that consist of:

- a) communication time with social significant one (i.e. spouse, peers).
- b) family activities
- c) social activities
- d) role activities
- e) sexual activities

### Operational Definition of Terms

1. Shift schedule -refers in this study to one of the following hours of work:
  - a) straight day shift 0800-1600 hours
  - b) rotate day to evening 0800-1600 hours/1600-2400 hours
  - c) rotate day to night 0800-1600 hours/2400-0800 hours
2. Perception -responses to a 16 question interview schedule in an open open-ended, semi-structured, interview measured female nurses perception.
3. Lifestyle Patterns -were measured by responses to a 16 question interview schedule developed by the investigator.

Hypothesis. In this study it is assumed that a relationship exists between shiftwork and disruption in lifestyle patterns. The hypothesis is used to guide the research investigation at the explorative level. The hypothesis for this study is: Female nurses do perceive that shiftwork disrupts their lifestyle patterns.

## Research Design

The study is qualitative in design and explorative in nature. The explorative nature of the study is necessary in order to generate data that will provide empirical grounding for future research. Knafl and Howard (1984) state that the purpose of qualitative analysis is beneficial in instrument development, illustration, sensitization, and conceptualization. The qualitative design for this study is at the sensitization level. Therefore data gathered at the sensitization level serves as adjunct to the quantitative studies which focused on male perception of social disruption due to shiftwork, but which have failed to represent the female population.

One of the purposes of qualitative research is to understand phenomena and factors underlying a certain sector of the population. Nurses employed full time in three shift schedules comprised three comparison groups. The use of comparison groups helps to "... generate the speedy development of analysis by drawing the observer's attention to many similarities and differences among groups..." (Glaser and Strauss, 1966; p.58). The literature suggests that different shift schedules create unique lifestyle difficulties. Comparing three shift schedules strengthens the design by allowing the investigator to note similarities and differences. The convenience sampling technique is the method used to describe the process of seeking out subjects

who have a specialized knowledge of the particular area under study (Knafl et al, 1984).

A convenience sample of 30 female nurses employed full time in shiftwork comprised 3 comparison groups with 10 nurses from each shift schedule in each group. The shift schedules used as comparison groups were the day/night rotating shift, the day/evening rotating shift, and nurses working day shift. An open-ended interview (see Appendix F) was administered to the nurses.

#### Subjects and Setting

The setting chosen was the Victoria General Hospital, in Winnipeg, Manitoba because rotating shiftworkers plus straight-day shift nurses were employed and could serve as comparison groups. One setting was chosen to limit conflicting job stressors. All subjects worked under the same philosophy and administrative guidelines. A letter was posted at every nursing station requesting nurses working in the three comparison shifts to volunteer. The nurses signed their names and numbers on pieces of paper and sealed them in envelopes attached to the posted letter. The investigator then contacted the participants by telephone and arranged an interview. This process was carried out twice in order to get 30 suitable subjects. The interview was conducted at a convenient time and place of the participants choosing.

Criteria for subject selection were:

1. 10 female nurses employed on the day/night shift
2. 10 female nurses employed on the day/evening shift
3. 10 nurses employed on the day shift

All subjects were able to read and understand English and were registered nurses with the exception of four registered psychiatric nurses.

#### Data Collection Technique

Prior to data collection approval from the following agencies was received:

1. University of Manitoba's School of Nursing's Ethical Review Committee.
2. Director of Nursing Services, Victoria General Hospital, Winnipeg, Manitoba.

The method of collecting data consisted of an open-ended, semi-structured face-to-face interview by the investigator. The interview questions were formulated by the investigator and designed to study female nurses perception of the effects of workingshift on lifestyle patterns. Subjects in the comparison groups were interviewed once by the investigator for approximately 45 to 60 minutes. The interview was tape recorded to permit accurate recall of information. Pertinent demographic and personal data were obtained at the time of the interview (see Appendix E).

The interview was comprised of 16 questions (see Appendix F). These interview questions were the result of two pretests. After the original questions were formulated, they were pretested on three female nurse shiftworkers for quality and clarity. Questions were then refined and the order rearranged. The questions were again administered to three different female nurses who work shiftwork to ascertain quality and clarity. All subjects were told at the beginning of the interview "I would like to ask you sixteen questions on how your shift schedule effects your lifestyle patterns?" Occassionally the term lifestyle patterns needed further verbal explanation. The participants were then asked the questions on the interview schedule.

#### Method of Analysis

Data were analyzed by content analysis. Polit and Hungler(1978) state content analysis is " objective, systematic and useful for handling qualitative descriptions of communication"(p. 379). Categories for classifying the data emerged from the data. Content analysis employing latent and manifest analysis were utilized in a complementary fashion (Babbie, 1979; Field, 1986). Latent content analysis increases validity while manifest content analysis increases reliability of the analysis (Babbie, 1979; Field, 1986).

The interviews were separated in three comparison groups as discussed in the research design. The interviews were transcribed by the investigator. The transcriptions were reviewed and the themes identified and noted in the margins. Analysis of content embodied a theme which was a sentence, paragraph, word, or incident. Passages were reviewed in order to identify general themes. Phrases and descriptors were tabulated for each theme. The categories utilized for classifying the content emerged through the analysis. The categories that emerged formed clusters exemplifying concepts of the conceptual framework (Chenitz, Swanson, 1986). The conceptual framework was then utilized to systematically organize categories which reflected similar concepts. Seventeen categories were formed which reflected concepts of the interpersonal and intrapersonal systems in the conceptual framework. These categories were reviewed and reorganized by the Research Advisor and the investigator to achieve consensus of the category classifications. Any incidents which were not clear examples of the categories were reclassified or not used.

DATA

|

| were grouped into

|

v

THEMES

|

| were grouped into

|

v

CATEGORIES (similar themes)

|

| formed

|

v

CONCEPTS (reflected in the  
conceptual framework)

Diagram 1

### Validity and Reliability

The study was qualitative; in design therefore, issues of validity and reliability are different from a quantitative design (Chenitz, Swanson, 1986). Internal validity of a qualitative study refers to the approximate truth in a proposition about the relationship between two variables when cause is inferred (Cook, Campbell, 1979). The construct used to describe the variables is evaluated. The validity of the data analysis is linked to the credibility of the theoretical framework that emerges from the data or guides the data organization and reporting (Chenitz et al 1986).

Internal validity was addressed in the interview process. The interview schedule was formulated after a review of the literature and was reviewed by nurse researchers to ascertain if the questions reflected the concepts the investigator wanted to address. A pretest of the interview schedule was carried out twice to ensure that the respondents were able to articulate the information sought.

External validity in this type of study refers to the extent to which the data are compatible with other relevant studies and their context compatible with the conceptual framework. This was achieved by the category reflection of the concepts in the conceptual framework. Categories were also compared to existing literature and novel categories were noted.

Reliability in this type of study depends on the reliability of the sources of data and the recorder. Reliability of the data was enhanced by comparing three groups. Comparison generates the notation of similarities and differences. Reliability of the recorder was assured by only employing the researcher as the interviewer. The interviews were tape recorded to provide a reliable method of recalling the information. Reflective statements were utilized by the investigator to ascertain trends of thought by the respondents. Reliability was also enhanced by employing manifest content analysis for data analysis ( Babbie, 1979; Field, 1986).

#### Protection of Rights of Subjects

Subject participation in this study was voluntary. Protection of individual rights was assured by obtaining written consent from each participant following the written and oral explanation of the study, its purpose, its relevance, and the expectations of participants. Participants were advised that they could withdraw at any time. Subjects were also advised they could refuse to answer any questions at any time. Participants were advised that the investigator would not employ coercion or other tactics to regain their participation.

At no time were the respondents' names associated with the taped interview. The investigator and her advisory

committee were the only ones who had access to the raw data. The interviews were erased upon completion of the transcribed data. Respondents were informed that the data would be reported in such a manner that no individual responses could be identified. A summary of the results were sent to each participant who requested a copy.

## THE FINDINGS

### Introduction

Data were analyzed using content analysis. The data were color coded to reflect the substance of what the nurses said. Color codes were then compared and similar codes were clustered (Chenitz et al, 1979). A cluster formed a category. The data were then analyzed for patterns of relationships between two or more categories (Chenitz et al, 1986). Relationships evolved which reflected concepts in the conceptual framework. Concepts in the adaptation of the conceptual framework were then employed to systematically report the findings. The main concept which emerged was the perceived effects of shift schedules on the nurses' interactional subsystems. The interactional subsystem is a subconcept of the interpersonal system of the nurse.

One category emerged which reflected the effects of shift scheduling on the intrapersonal system, specifically the ego-control subsystem. The findings are reported by concept

and supported by categories which exemplify the data. The data from each category were analyzed in the three comparative groups as dictated by the research design. The chapter discusses the relevant data in the categories by comparing the findings of the day/evening, day/night, and the permanent day shifts. The following categories emerged:

1. Interpersonal System

- a) Interactional Subsystem

1. Space

- a) perceptions on the effect of shift schedules on personal time for self

2. Patterns

- a) perceptions on family rearranging the family schedule to accommodate the shiftworker

3. Roles

- a) Sexual

1. perceptions on the effect of shift schedules on sexual activities

- b) Occupational

1. perceptions on the effect of working seven shifts in a row

2. perceptions on the effects of shift schedules on attendance at professional activities

3. perceptions on shift schedule satisfaction

c) Familial

1. perceptions on the effects of shift schedules on time to discuss family concerns
2. perceptions on the effects of shift schedules on time to relax with the family
3. perceptions on the effects of shift schedules on attendance at special family activities
4. perceptions on how the family feels about the work schedule
5. perceptions on the effects of the shift schedule on the parent role

d) Affiliative

1. perceptions on the effect of the shift schedule on the spouse/mate role
2. perceptions on the effects of shift schedule on dating relationships
3. perceptions on the effects of shift schedules on time to communicate with friends and relatives
4. perception on friendships with other shiftworkers

## e) Communal

1. perceptions on the effects of shift schedule on attendance at social activities.
2. Intrapersonal System
  - a) Ego-control
    1. perceptions on the effects of shift schedule on emotional reactions

Presentation of the data follows the same format for each category. A brief introduction of a category is followed by a table comparing the three shift schedules. A discussion of the day/evening shift, followed by excerpts of the data which exemplify the discussion, is presented. The format is then repeated for the day/night shift and the permanent day shift. Some excerpts of the data have been slightly paraphrased in order to ensure readability.

Interpersonal System

Sixteen identified categories exemplify the effect of shift schedules on the interpersonal systems of the nurses. Three main themes were identified which reflect the interactional subsystem within the interpersonal system of the nurses. The three main themes were the effect on:

1. Space - personal time
2. Patterns - family patterns

### 3. Roles

- a) Sexual
- b) Occupational
- c) Familial
- d) Affiliative
- e) Communal

### Space

One category emerged which illustrated the effect of shift schedules on the nurse's personal time to herself.

1. Female nurses perceptions of shift schedules on personal time for self - referred to responses which reflect a lack of personal time to engage in activities such as hobbies, physical exercise and shopping.

Discussions and statements which exemplify the category are discussed in the three comparative groups. Table 1 exemplifies the data.

The nurses in the day/evening group ( 6 out of 10) stated that they experienced frustration with the lack of time their work schedule allowed them to engage in personal leisure activities such as aerobics. The following excerpts exemplify the responses

My shift schedule doesn't allow me to recuperate on my days off. I never have enough time to clean my house, to go out and do errands, or to go shopping. I've hardly time to myself

TABLE 1

Personal Time to Self

<u>n = 30</u>	<u>Group</u>	<u>Satisfied</u>	<u>Not Satisfied</u>
10	D/E*	4	6
10	D/N*	2	8
10	Days	4	6

\* D/E (Day/Evening shift)

\* D/N (Day/Night shift)

for self-care never mind for doing other things that are really not necessary. I find it a catch 22 actually because I'm well aware that just working is not good for me and I need time to oneself to engage in such things as leisure activities. Time for myself is actually more than a leisure activity. I find it a necessity a part of my complete well being and self care. With my work schedule the time is just not there.

I ski, I sew, I read, and I listen to music. These activities I can do. But the shiftwork interferes with the time to do activities for myself. For example, I'm very reluctant to sign up for swimming. I would have to miss the class on a regular basis. That ultimately effects me.

The evening shift really cuts into time to myself. For example, when I take jazz dancing the evening shift cuts into every third week. I find missing the jazz classes a hassle.

I find time to myself is really rushed. There are times when things that I would like to do get put off and that happens because of my work schedule.

The shiftwork effects my time to keep fit. I don't have a lot of time to schedule in physical activity. By the end of the shift I am so tired that I don't want to go to the gym. I don't want to go skating; I just want to relax. I don't have enough time to myself.

My schedule does not give me enough time to myself. Even when I work days I have to force myself to go to the gym because I'm too pooped.

Four nurses in the day/evening group responded that they were satisfied with the amount of time they had to do hobbies and shopping.

I find there is enough time to myself. I like working the evening shift, because I have practically the whole day to do various activities. I don't usually sleep in the early morning and I have few cares. I don't have heavy family demands that keep me busy during the day.

Time to myself is not a problem. When I work evenings I get caught up on personal things during the day.

I find I have enough time to do the things I like to do such as hobbies. I can do them during the day or on my days off.

The majority of the day/night nurses (8 out of 10) were not satisfied with the amount of time their work schedule allowed for personal time to themselves. Responses focused on the reason the nurses thought it was a problem. The most common response was that the shift schedule left the nurses too tired to engage in personal leisure activities.

I find that when I work nights I don't have the energy to do things that I feel are important; for example, going to exercise, and activities for myself is an impossibility; I'm not awake. I live in the twilight zone when I work nights. Therefore, I don't feel like doing anything but sleeping. I would like to be able to do activities for myself but I'm too tired.

I guess there is enough time to do things for me, but I find that when I come home from work I'm so tired that I go right to sleep. When I wake up, I'm so drowsy that I don't want to do a thing. My hobby is sewing which takes concentration. I just don't have the energy. I'm not satisfied with that.

I go straight to bed when I come off nights. I sleep until my husband comes home. I wake up and don't do anything. I find it frustrating; I absolutely don't do anything. I am just too tired. I never seem to have time to myself, and I never do anything for me except sleep.

My work schedule does not leave me enough time for myself. I don't know if I mismanage my time, but I never seem to have enough time to do even the important errands. I am just too tired, especially when I work nights.

I find that when I work nights I'm just too tired, even on my days off. I don't have the energy to shop, knit or do anything. That is one thing I miss time by myself, to do things for me.

The schedule doesn't allow you time for yourself. If you have a family and work shift it is impossible. I'm my own cleaning lady, a wife, a mother, jack of all trades, master of none. So when do I have time for me. It is very difficult.

Nurses working the permanent day shift were divided on how satisfied they were with the amount of time their work schedule allowed for personal time. Nurses who responded they were not satisfied (6 out of 10) indicated they were too tired and that they lacked the energy to engage in leisure activities for themselves.

I really find that I don't have time to myself. The family really tries to pack activities in on the weekend. I really have to plan activities which occur during the evening, because when I get home, I am really too tired to take advantage of time for myself.

I tend to be too tired once I'm finished work. I can't be bothered to do hobbies and things I like to do. I only have Saturday for those types of activities because Sunday is family day. I end up doing things for the house on Saturdays and I run out of time for myself.

I'm not particularly satisfied with the amount of time I have to shop for example. I am not an evening person, therefore I don't like to shop or do things then. I like to have time in the mornings to myself which is not possible on working days. Since I have worked days I find I complain a lot that I don't have enough time; I'm too tired by the time evening comes.

I really don't find that I have enough time to myself. I find it ironic because I thought that working days was ideal. But when you have a family you are still faced with housecleaning, washing, cooking, grocery shopping and those things. So when do you have time for the things that you like to do? I am too tired. I come home after supper and I'm too pooped to do any chores. So the chores wait until Saturday. I just don't have enough time.

I'm really tired by the end of the day. I can't go shopping or do those things that I enjoy. I cram everything into the weekend. I find there is just not enough time.

I'm too tired at the end of the day even to read or to do leisure things for myself. I find it embarrassing. I come home, I eat, I sit down and fall asleep. I've gone to bed as early as seven p.m. to get my rest for the next day at work.

Nurses who were satisfied with the amount of personal time ( 4 out of 10 ) stated they had evenings and weekends to do activities.

I manage to get everything done that I want to. I do a lot of hobbies. I sew, knit, read and right now I manage to get sports done as well. I fit these activities in the evenings and weekends.

I find I have enough time for myself. I have my evenings and weekends to be able to do activities; so it is okay.

I'm very satisfied with the time I have to do things for me. I have the weekends to shop and to sew.

My present schedule certainly allows enough personal time. I work when everyone else in the community works. I have my weekend evenings free.

### Patterns

One category was formed which reflects the effect of shiftwork on family schedules.

1. Female nurses perception of the adjustment of family schedules to accommodate the shiftworker -referred to those responses which reflect that the family rearranges the family schedule to be with the nurse.

Discussions and statements which exemplify the category are discussed in the three comparative groups. Table 2 displays the data.

The majority of the day/evening nurses (7 out of 10) responded families do rearrange family schedules to accommodate the nurses shift. Responses indicate the nurses tend to feel guilt about families altering their schedules.

A lot of the time family activities occur around my schedule. I am the only one in my family and my husband's family who works shift. Everyone else in the family works a nine-to-five job or is self employed in farming. It is easier to schedule activities around me. Sometimes that makes me feel guilty. I feel that I can control family activities. I don't want to. But I am upset if I miss family activities and if they don't include me.

TABLE 2

Family Rearranges Schedule for the Nurse

<u>n = 30</u>	<u>Group</u>	<u>Does rearrange</u>	<u>Does not rearrange</u>
10	D/E*	7	3
10	D/N*	5	5
10	Days	0	10

\* D/E (Day/Evening shift)

\* D/N (Day/Night shift)

If the family are planning a family dinner, they always check, to see what I'm working. I'm the only one who works shift. So I find most of the time the family will try and accommodate me.

My husband rearranges his schedule and I tell you something, he is getting tired of it. He really does try to accommodate. However it is getting to be an issue every time he has to alter his schedule. We find rearranging his schedule very difficult.

The family tried to arrange Christmas supper on a day that I could attend. My brothers and sisters go to their spouse's the next Christmas. They arrange their schedule to be with me at Christmas when I have it off.

Three nurses responded their family does not rearrange the family schedule. Two nurses are single parents with grown children.

My son occasionally rearranges his social schedule to get the car. We don't eat meals together because we don't like

the same foods. He cooks his own meals and I cook my own meals. He looks after himself.

One nurse responded her husband did not rearrange his schedule, but she wished that he did.

It's impossible for my husband to rearrange his schedule. I try to help him by giving gentle nudges and pushes to be more flexible, but it is really hard for him to rearrange his time. I find the hassle very frustrating.

In 50% of the cases nurses working the day/night shift had families who rearranged the family schedule to be with nurse. Families which did rearrange schedules appear to be flexible in their routines and exhibit a degree of understanding.

I just realized something, my husband sleeps during the day when I work nights. He stays awake until about four in the morning. Most of his classes are in the afternoon or invariably in the first part of the morning. He goes to his class and then comes home and goes to sleep if I am working nights. So he does accommodate me.

My husband is very understanding. He knows exactly the weekends I am working, and finds other things to do. When I'm working I really don't care, what he does. My weekends off he doesn't plan things. He checks with me and accommodates me.

My family rearrange their schedule for me. For example my mother came to visit me for my birthday this year. She had to plan her visit to accommodate my work schedule. My family have juggled celebrating birthdays so I can attend.

Families that do not accommodate (5 out of 10) appear less flexible in their routines.

Definitely not. He's a mountie and he works a set schedule. He's very dedicated to his job and in the three years I've

known him he has never altered his schedule. He says he has but I know better. I have to accommodate him.

Unfortunately my family does not alter their schedule. They often just go ahead with activities So I often miss out on family things because of my work schedule.

Every permanent day nurse stated their families did not have to rearrange family schedules. Reflected in the responses was the idea that the nurse works a normal schedule like everyone else, so there is no need to rearrange schedules.

There is no one in my family or in my husband's family who works shift. They all work Monday to Friday. Therefore we get together on Sundays or on an evening during the week. There has never been a problem with scheduling. If I worked shiftwork it would be a problem. I work the same schedule as the rest of the family.

My family do not have to rearrange their schedule. I am working the same schedule they are.

No the family do not have to rearrange their schedule for me. I work the same hours that my husband works. I find I schedule activities for the weekend so the family does not have to reschedule for me.

My family does not have to rearrange their schedule for me. I have all holidays off and I work the same time as the rest of the family. Therefore there is not any reason for the family to rearrange their schedule.

I find now that I work days the family does not have to rearrange their schedule for me. When I worked shift I found the family usually went ahead with activities without me.

I do not think my children have to rearrange their schedule for me. We plan swimming lessons and music lessons during the weekend. My children are in school when I am at work so they do not have to worry about changing their schedule.

One nurse responded her husband occasionally rearranges his schedule to accommodate the children, when they are off school.

Basically my husband has to accommodate the kids. He's at home half days and if there is a problem with inservices he arranges his schedule to be home with the kids.

## Roles

### Sexual.

1. Female nurses' perceptions of the effects of shift schedules on sexual activities -referred to responses which reflected that the nurses were too tired, came home too late, and therefore could not find the time to be together with their spouse/mate to have sex.

Discussions and statements which exemplify the category are discussed in the three comparative groups. Table 3 displays the data.

The day/evening nurses who were sexually active (7 out of 10) stated their schedules did effect sexual activities. One area of concern was that the nurses (4 out of 7) were too tired to engage in sexual activity when they worked evenings.

I think the schedule definitely effects our sex life. By the end of five shifts I'm wiped out. I just want to go to bed and sleep. By Friday he is in a romantic mood. I'm not; I'm tired. I just want to go to bed and sleep. This is what

TABLE 3

Effect on Sexual Activities

<u>n = 23</u>	<u>Group</u>	<u>Does Effect</u>	<u>Does Not Effect</u>
7	D/E*	7	0
9	D/N*	8	1
7	Days	0	7

\*D/E (Day/Evening)

\*D/N (Day/Night)

happens after one year of marriage, I thought it happened after 15 years of marriage. You begin to wonder if you are really normal or not. Both of us end up asking the same question. He asks if there is something wrong with me and I say no I'm just too tired.

The shift schedule really does interferes with sex. I'm just too tired. When I get to bed I just want to sleep. I don't want to start rolling around; I just don't have the energy.

When I come home from evenings I'm just too tired. I think my husband understands but it is a stress in our relationship. I find both our communication and our sexual relationship is affected.

I think our sex life is affected by my work schedule. Our sex life is not as good as it used to be when I was working part time in the first year of our marriage. I find now I'm too tired to be interested, especially after working 7 shifts in a row.

A second concern was expressed by the nurses. The nurses arrive home late when working evenings and their spouse/mates are usually asleep.

I am not going to prod my husband awake when I come home at midnight to have sex. Because I know that he has to get up in the morning and he needs his sleep as much as I do. It is not because I don't feel that I would like to, I would. I see him lying there and he still looks good to me. When you know he has to get up in the morning you are less likely to have sex. Sex takes a back seat so you try and schedule it. But sex is not that kind of activity that should be planned. So the spontaneity goes out of it.

Our sex life is really affected by the work schedule. When I am working evenings, you come home late. My husband is in bed asleep, so you don't want to wake him up.

My husband comes home from work and he is tired. He is in bed when I get home at midnight. I won't wake him up to have sex. We seem to save sex until Sunday morning and we find it tough. I wonder is this the way it is supposed to be? You begin to wonder if all couples have sex only on Sunday.

The majority of the day/night nurses (9 out of 10) were sexually active. Eight of the nine stated their work schedules did effect sexual activities. Four nurses expressed that they were too tired and that they did not sleep at the same time as their partner.

I am just too tired to expend the energy sex takes. My lack of energy is the biggest sex problem which creates a lot of stress in our relationship.

Working nights really affects our sex life. I'm just not interested. I find it very frustrating for my husband. My husband finds I'm not interested in sex; I'm only interested in sleeping. I'm too wiped to even think about sex never mind do it. Therefore our sex life is a problem.

There is no way I'm willing to jeopardize my sleep for sex. I need my sleep because I'm like a zombie when I work nights. So he just has to forget about sex!

Definitely our sex life is not as good because I work night shift. I am not around when he is in bed and I don't have the energy in the evenings. Our sex life is a big problem, when I work nights.

Arranging time time to together to have sex was verbalized as an area of concern.

My shift interferes with my sex life. Because when you work a whole week of nights you are not home. So when do you find time for sex? If you have a nice evening you have to end it by coming to work. You really have to have someone that is very understanding.

Working nights really interferes with our sex life. I will give you an example of what my friend was going to do because it reflects how the schedule interferes with sex. My friend wanted to work a month of nights and then a month of days. She went home to her husband and asked him what he thought and he said "What no sex for a month!". That is exactly how I feel. When I work nights our sex life is eliminated.

Getting together is the biggest problem with our sex life. Working my shift, I'm not around at night. When I come home I'm too tired. In the evenings I don't even like to talk to people. Therefore, you can imagine what I think about sex.

Working nights is not conducive to a great sex life. We are just not around together at the same time which affects our sex life.

Nurses who worked the permanent day shift who were sexually active (7 out of 10) found that their work schedule did not affect their sex life because they were home at the same time as their partner and went to bed at the same time.

Working days doesn't interfere at all with our sex life. We are home together in the evenings. Most of the time we go to bed at the same time. Sometimes I go to bed earlier because I get up earlier but he goes to bed soon after.

The schedule has no affect on our sexual activities. Again we go to bed the same time and get up at the same time.

Working straight days is great for our sex life. We are together all the time so it is great. My husband thinks our sex life is wonderful compared to when I worked nights.

I have a straight day job so my schedule doesn't interfere with our sex life at all.

Working days is like a bonus to our sex life, especially after having worked other shifts. My husband and I feel like we now have a normal sex life.

#### Occupational.

1. Female nurses' perceptions of working the same seven shifts in a row. -referred to those responses which indicated that working seven shifts in a row contributed to excessive tiredness and emotional fatigue.

The emergence of this theme was apparent early in the data collection process. Discussions and statements that exemplify the category are discussed in the three comparative groups. Table 4 illustrates the data.

Every participant in the day/evening and day/night shift worked seven shifts in a row. Only 2 out of the permanent day staff worked seven shifts in a row. Every one of the nurses who worked seven shifts in a row vocalized that they found it very difficult.

TABLE 4  
Seven Shifts in a Row

<u>N = 22</u>	<u>Group</u>	<u>Satisfied</u>	<u>Not Satisfied</u>
10	D/E*	0	10
10	D/N*	0	10
2	Days	0	2

\*D/E (Day/Evening shift)

\*D/N (Day/Night shift)

Working seven nights is really hard. I find working that length of time extremely difficult.

Working seven straight shifts is just too much and working seven nights just kills you.

Working seven shifts in a row is the worst. I hate the seven evenings and the seven days in a row. I just don't function properly.

The analysis of the data revealed two areas in which working seven concurrent shifts affected the participants. The areas are: a) fatigue and b) irritability.

a) Fatigue

Eight of the ten nurses employed in the day/evening shift stated that working seven shifts in a row created excessive tiredness. Nurses expressed tiredness by using words such as "tired" or "fatigued".

Working seven shifts in a row is pretty tiring. I find it pretty difficult, I am just too exhausted. I find that I am still tired even when I get my rest say on seven days. Because you don't have any time off in the seven days, you end up being exhausted.

I find I am extremely tired after working seven evenings in a row. By the fifth evening I am too tired, even at work.

Working seven shifts in a row is just too much. How can you be therapeutic and care for people when you are so concerned about your own health and your own fatigue.

I'm extremely tired when I'm coming to the end of 7 shifts. I am too tired by the end of seven evenings or seven days.

I find working seven shifts just too difficult. I don't think we should be working anything more than five shifts in a row because by that time you are just too tired and your personal life has been totally neglected.

Every nurse working seven day/night shifts stated that they were left feeling tired and wiped out.

Working seven shifts in a row is physically tiring. I have a tendency to wonder where the heck the seven days went, because I only work and sleep. Sometimes I sleep up to 10 hours in the day, and I still feel exhausted. I definitely find it more exhausting than working just five shifts. It is strictly downhill after five shifts.

When I work nights I feel very isolated especially when I work seven nights in a row. I find all I do is sleep and work. Eventhough I get the same amount of sleep I always feel tired, fatigued.

Working seven nights is really hard, even harder than seven days. I'm more tired and I never seem to get enough rest. I think I could sleep 18 hours and still feel tired.

I hate working seven shifts. There are less people working nights so I feel all alone. I am so tired I just don't feel like socializing.

I'm so tired after working seven shifts in a row that even if I have the weekend off I don't feel like doing anything until Sunday. I am just wiped.

I don't like working the long stretches of seven days and seven nights. I become a zombie. I can't sleep and by the fifth night I don't function very well. I am exhausted. I am even too tired to be civil to people.

I find working seven shifts in a row too long. I just get too tired, even though I get my proper sleep. I unplug the phone and the room is dark so I do get my sleep. But it doesn't seem to matter, I still find that I'm exhausted.

Working seven straight shifts is just too much and working seven straight nights just kills me. I am too tired to do anything. If I had known what shiftwork would do to my life a long time ago, I might not have gone into nursing. I never seem to get ahead. I'm still working shift after all these years. I realize that you can't avoid it but the shifts need to be improved. For example get rid of working seven shifts in a row.

Two out of ten nurses working permanent days had schedules that were seven shifts in a row. Both nurses stated that they experienced increased tiredness working seven concurrent shifts.

Working seven days leaves me tired. I find I don't want to do things in the evenings I work seven days in a row. I really notice after the fifth day that I'm extremely tired.

I wish that the seven day stretch would end on the weekend because you never know how much energy you are going to have by the end of the seventh day. I get very tired working seven days in a row.

b) Emotional Reactions

Increased emotional reactions to situations were noticed by the nurses when working seven shifts in a row. Words and phrases which illustrate this category were "crabby", "lack of patience", and "not as relaxed".

Six out of the 10 day/evening nurses noted a difference in their emotional level when working the seven shift stretch.

I'm a crabby person anyway but when I work seven evenings in a row I'm even crabbier. After working seven nights I'm very crabby. I am still crabby after a two day break.

When I'm working seven shifts, especially evenings, I'm not as relaxed as I could be. I find it very hard to cope with things. I react quicker to problems and than I should.

I notice that near the end of the seven-shift stretch I really don't have the patience with my co-workers that I should have. Situations tend to get blown out of proportion.

Near the end of working seven shifts. I find that I am not as calm as I should be. Little things seem to bother me more. I yell a lot more.

Stronger sentiments were expressed by the nurses working the day/night shift. The nurses (8 out of 10) utilized words such as stress, strung out, irritable and they would like to be left alone.

When I am working the seven nights in a row I really feel strung out. Emotionally I have had it. I really get uptight when I come to the end of seven shifts, especially seven nights.

At the end of working seven nights I am emotionally drained. I'm physically and emotionally exhausted.

By the end of working seven nights I'm bitchier than ever. At the end of seven days or seven nights I don't have any rapport with my family. I find going to bed is the most important thing in my life.

After working seven nights I get very grouchy with everybody. I try not to be short with people because there is hardly anyone around as it is. I think people irritate me more when I'm near the end of seven nights.

By the end of working seven nights I like to be left alone. My husband understands and he just avoids me.

I'm very irritable when I work seven nights. Everyone knows to stay away from me when I'm near the end of seven nights. My poor family seems to get the worst of my terrible mood.

Two out 10 nurses who work permanent days work 7 days in a row. A good description of the emotional affects was not feasible. However, one nurse expressed that she was less tolerant when working seven days.

I'm less tolerant with the family and workers by the end of working seven days. But I guess everybody at work finds the same thing.

## 2. Female nurses' perception of the effects of shift schedules on attendance at professional activities.

-referred to responses which reflect attendance at inservice meetings, continuing education classes, and professional meetings.

Discussions and statements which exemplify the category are discussed in the three comparative groups. Table 5 illustrates the data.

<u>N = 30</u>	<u>Group</u>	<u>Satisfied</u>	<u>Not Satisfied</u>
10	D/E*	1	9
10	D/N*	2	8
10	Days	8	2

\*D/E (Day/Evening)  
\*D/N (Day/Night)

The majority of the day/evening nurses ( 9 out of 10) expressed they were not satisfied with the amount of time available to attend professional activities. The main theme which emerged was that the nurses miss up to half of any classes they may take.

Well I find I just can't take a class because I miss every third one. For instance, I would have to work permanent evenings in order to attend a class in the day. If I do work permanent evenings my family time is drastically cut. I took a course and the only way I could attend was to get another nurse to switch with me, which was difficult. I'd miss class because I couldn't get anyone to switch with me.

Attending continuing education classes is a problem. It is a problem because I miss every third class. So going to a series of classes is a waste of time and money.

Trying to attend a class is something I am not satisfied with. It is impossible for me to attend an evening course because I end up missing almost half of it, or else I miss work to attend; that is difficult because then I lose the money and I'm not satisfied at all.

Being able to attend classes or things like that is one area where I get really frustrated. Because of my shift schedule I miss at least one week out of three. I would never join a class which meets twice a week. I would just lose too much. I find it very frustrating.

Another area of concern was attendance at professional meetings and workshops. They are usually held in the evenings so nurses who work day/evenings can't attend.

Most of the professional meetings are in the evening, so I can't attend. I would say I have missed the last 6 meetings because I have been working evenings.

I don't attend professional meetings because they are generally in the evening so they are not scheduled when I am off. Therefore I don't get involved.

Whenever I have taken a few workshops I've had to take a leave of absence without pay so that I could attend. I take leave without pay because I find getting someone to trade with you is a real hassle. So it bothers me. I think shiftworkers are discriminated against in the area of professional upgrading.

The majority of the day/night staff (8 out of 10) expressed attendance at professional meetings was difficult. The nurses expressed that they were too tired to attend evening classes or attend professional meetings.

If there is an evening course I guess I could attend but I would have to be very motivated. I am too tired when I work nights. All I want to do is sleep. I'm so tired I don't want to do anything.

I think I have the time to go to evening classes if I had the energy. I don't. I don't have the energy to stay awake so why go?

I try to attend classes in the evening. But when I am working nights I don't have the energy to attend. I find having the energy is the problem.

I don't attend classes. I'm too tired. I would go if I worked straight days. I work days / nights and I feel I am at a disadvantage, so I don't go. I don't think continuing education should be mandatory unless administration is willing to compensate the shiftworker.

I'm really too tired or I don't have the incentive to expend the energy to go to a class. So I end up never going. You never see a class you can attend all the time anyway.

I think you have to have the energy to learn new things. When I work nights I am too tired. I can attend an evening class if I just want to be content and vegetate through the class. But as far as having the energy to learn new things it just isn't there.

Attendance at inservices also emerged as a concern to the nurses working the day/night shift.

In order to attend inservice lectures I have to get up early or I have to stay after the shift. I find it is unreasonable to stay after you have worked nights.

I miss a lot of interesting inservices. I would have to get up early and come in for them. I have missed a lot of good inservices. I feel no one cares if I miss them. I feel left out and that is a problem.

Inservices are never held at a night. So I miss out on them. I think I get penalized for working nights. The day staff always seems to be able to go to inservices and I can't unless you give up your sleep time.

Attendance at professional meetings emerged as not being a problem with the majority of the permanent day staff. The main reason for this response was that the nurses had the evenings to attend.

I can attend evening classes with no problem. I am very active with the Manitoba Association of Registered Nurses. But I do on my own time in the evening. Since I work days I have the evenings. I don't find it a problem.

I am very satisfied with the amount of time my work schedule gives me to attend professional meetings or evening classes. I can usually go in the evening.

I want to take some courses this spring and the classes will fit into my schedule just right. The classes are all in the evenings. Classes seem to be set up so people who work days can attend.

I take a university course two evenings a week and I don't see attending classes a problem. I can always arrange time to go to a professional meeting because they are usually in the evenings.

Working days is great. If you want to take a university course they are usually offered in the evenings. Working day shift allows me to attend them.

Only two nurses responded that they found a problem with attending classes. Both nurses expressed they could not attend day classes or classes which start soon after the day shift.

A lot of the university courses in nursing are in the day. I can't go to any day classes. I took a course at Red River Community College and I could not get the certificate because I missed too many classes. So taking classes in the day is a problem.

Working days does not allow me to take day courses or courses that begin soon after 4 p.m. However, I can take evening courses without any problem.

3. Female nurses' perceptions of satisfaction with shift schedules -referred to responses which reflect how nurses feel about their work schedule.

Discussions and statements which exemplify the category are discussed in the three comparative groups. Table 6 illustrates the data.

TABLE 6			
<u>Shift Schedule Satisfaction</u>			
<u>N = 30</u>	<u>Group</u>	<u>Satisfied</u>	<u>Not Satisfied</u>
10	D/E*	1	9
10	D/N*	0	10
10	Days	9	1
*D/E (Day/Evening)			
*D/N (Day/Night)			

The majority of the day/evening nurses (9 out of 10) responded that they were not satisfied with their shift schedule. Five out of nine stated the seven shifts in a row were too long.

I have been working the day/evening shift a long time. But the rotation has its problems. Often I only get one day off. Right now I'm working Monday, Tuesday, Wednesday with one day off. I then work seven evenings. I really am tired when I work that long.

I would rather work straight days. I haven't been lucky enough to find a straight day job. Working evenings is better than working nights. I don't seem to function when I work nights. So I prefer evenings except when I work seven straight evenings and days in a row. It is a killer.

One nurse stated that she didn't like anything about her shift schedule.

In general, I don't like the work hours. The work hours are a great source of dissatisfaction to the profession and to nurses. In fact, working shiftwork is enough to make me reconsider nursing.

Two nurses expressed concerns regarding insufficient time off between the shifts.

I complain a lot about the shiftwork. I think the stretches of work are too long. There are too few days off.

I like the current shift except for one period when I only have one day off in eight shifts. I don't have enough time to rest inbetween the shifts. I find having one day off is just not enough.

One nurse was dissatisfied with being a primary nurse on evenings.

It (shift schedule) affects primary nursing on the evenings as well because I don't assess a patient in the same way. I don't have contacts with co-workers and I am suppose to be working primary nursing but also as a team. I don't have the same communication. I think there is more conflict at work. I think that if the nurses working full time worked more days, there would be more cohesiveness. There seems to be a lot of conflict over little piddley things between days, evenings, and nights. For example, other nurses say "don't do this" and "why did you do this?" Whereas if the person had been there during the day it would all be cleared up.

Day/night nurses all responded that they were not satisfied with their shift schedule. One theme arose. The shift schedule dominated their lives. The nurses reflect they have no control over their work life.

I don't like working nights at all. But what am I supposed to do? Day/night was the only shift I could get. I would like to work days but that is not possible. I would prefer days/evenings over the days/nights because at least I would get my rest and feel human. But it just can't be.

I feel like my job dominates my life. Really my job is a major part of my life. My work is basically my life. I have to work my life around my job. I don't have the energy and I'm really dragged out because of my work schedule.

Another theme that emerged was that there was not enough time off inbetween shifts.

I hate the work hours. They are terrible. The nights come too soon, too frequently. There isn't enough time between the night and days. There are too many nights in a row and not enough time inbetween the shifts.

I would like the work hours better if there were more weekends off. Every second weekend reminds me of the dark ages. With all the part time and casual nurses I'm sure the hospital could accommodate their full time staff better. I find it mind bogaling the hospital can't go out of their way

to accommodate their full time nurses. Because we spend a lot of time on the job.

Working 7 shifts in a row was a source of shift schedule dissatisfaction.

I'm tolerating the night shift now. I would like to see a better rotation. I don't think working nights is healthy for me. I don't think I am at my best working nights. I already do a little better than some people I know, because overall I am more happy. Working seven nights is too long without a day off.

The most difficult part of the shift is working seven days and seven nights. Seven shifts in a row is just too long. I just don't bother doing anything by the end of those shifts.

The majority of the permanent day nurses (9 out of 10) responded that they were satisfied with their work schedule. A resulting theme from the responses was that the day nurses worked hours similar to the rest of society.

In general I like the work schedule. The family think nine to five are the hours to work. Because I can get my children off to school and I am home are there to make supper. So right now it is not bad because I feel I am able to do those normal things. It works out perfectly.

I'm so pleased with the improvement in the work hours. I don't know how I could go back to a permanent night shift and our floor doesn't have a day/night shift. But I'm just happy with what I got.

I like the day shift. Because my main goal was to work in a day job. When I was working shift I didn't like it at all. From the time I started nursing, although I like nursing and I like to work, I didn't like the shift. Permanent shiftwork would make me look for something else.

Responses indicated that if any improvements could be made to the permanent day shift, was the nurses would want a compressed work week.

I like days. Day shift is the best I have worked. I'm quite satisfied. The compressed work week would be the only improvement to the day shift.

I find working permanent days is great. I sometimes wish it was a 4 day work week. So I could have an extra day to do business type things.

Because the hospital has talked about a compressed work week for so long, I thought we would be working a 4 day work week. We were talking about it years ago.

#### Familial.

1. Female nurses' perceptions on the effects of shift schedules on time available to discuss family concerns -responses which reflect the concern of inadequate time to be with the family to discuss family concerns exemplify this category.

Discussions and statements which exemplify the category are discussed in the three comparative groups. Table 7 illustrates the data.

Nurses employed in the day/evening rotation expressed working evenings restricts the amount of time available to be with their family to discuss family concerns ( 7 out of 10).

TABLE 7

Time to Discuss Family Concerns

<u>N = 30</u>	<u>Group</u>	<u>Satisfied</u>	<u>Not Satisfied</u>
10	D/E*	3	7
10	D/N*	8	2
10	Days	10	0

\*D/E (Day/Evening)

\*D/N (Day/Night)

When I get home from working evenings my husband is already in bed sleeping. In the morning he goes to work when I'm sleeping. I'm awake when he's leaving, but not to sit down and discuss anything. Working evenings really affects us. Having time to chat about things is difficult.

I'm not very satisfied with the amount of time I have to discuss matters when I work evenings. The days are fine since my husband works straight days. We have the evenings. But the evenings I work we have to discuss family matters by phone.

Family problems never get talked about when I work evenings. Usually if it is something that nags me, it gets out of proportion. The problem usually ends up in a fight, an argument. We just never have time to talk. I'm always saying "We never have time to talk about these things" and my husband says "Well you're right when we do have a chance to talk about it"...

Two of the three nurses stated that they do have enough time to discuss family matters. One nurse is a single mother

who lives with her parents. She stated that her parents wait up for her to discuss family concerns when she works evenings.

There's certainly time to discuss family concerns. Most of the conversation is about my son. But I make a point too of making the time for what he's doing at school or what's happening. I make the time. When I get home from my parents are often up and I never feel like bed right away, so we sit around and talk.

The other nurse who did find enough time to discuss family concerns was divorced and living with an adult child.

I find there is enough time to discuss family concerns. My son is independent. He is 24 years old and when I work evenings we don't see each other because he goes to work when I'm still sleeping. I come home from work when he is still sleeping. I really don't find that a problem. He is an independent adult so he knows to phone at work if there is anything that comes up. I phone him at home if there is anything.

Unlike the day/evening shift, the majority of the day/night (8 out of 10) felt that they had enough time in the evenings to discuss family concerns.

Time to discuss family concerns is not a problem. My husband is home in the evening when I'm there. We are over child raising, but we still have a lot of things to discuss. We have two children that need a push. But everybody has their own set of problems. We have our evenings together or when I come home in the mornings. He gets home at 5:30 pm. If I'm working nights or days I'm here, I'm always here in the evening, so we are together in the evenings and have the time to discuss things.

Although I'm a real witch on nights we are almost always together in the evening. We do a lot of talking and I know I'm a grouch. He knows I'm a grouch and so we discuss it a lot. The evenings gives us time to be together.

Two nurses responded that finding time to discuss family concerns was a problem. They felt that they were not around the family enough, or they didn't feel like talking when they were on the night shift.

I'm not happy with the amount of time I have to discuss family concerns. We make time at dinner when we are together. But when I work nights I don't feel like talking especially about problems. Therefore I find it difficult.

I'm sure there are times when I'm not available to discuss things. because I'm a full time worker who works shift and am also a single parent. I'm the only parent that my son has to go to and I'm just not there all the time. I find it very hard.

The entire permanent day staff indicated that they had adequate time to spend with their family to discuss family concerns. The nurses stated that their schedules were the same as the family schedule. The work schedule did not interfere with the time they have to spend with the family.

I don't find that taking time to discuss family concerns is a problem. If we have anything to discuss we will make the time. My husband does not work shift so his schedule is very similar to mine, except when I work weekends. Every third week our schedules conflict.

Both my mom and dad work during the days and my husband works days so our schedules are very similar. I'm very satisfied with the amount of time I have to be with them to discuss family problems when they arise.

I get a fair amount of time to be with my daughter to discuss things. In my case my daughter is awake with me in the morning. So I get home sometimes before she does from school. She really doesn't miss me. So it works out well for us right now.

The work schedule itself allows me enough time to be with the family to discuss family concerns. I sometimes feel that I spend more time at work than with the family. But that is because of the expectations I put on myself. It is not because of the work schedule. My husband works a similar schedule and I have a very young daughter so I find there is enough time to discuss things.

My husband and I find we have enough time to rehash the worst things that have happened during the day. Because I work days we have every evening together.

Working days allows me to see the children every evening. Therefore we have the evenings to discuss any problems they may have.

2. Female nurses' perceptions on the effect of shift schedules on time to relax with the family -responses which reflect that there is a lack of time to be with the family to relax together exemplify this category.

Discussions and statements in this category are discussed in the three comparative groups. Table 8 illustrates the data.

The day/evening group of nurses (7 out of 10) indicated that working evenings meant that they had less time to spend with their families relaxing together.

Time to relax with the family is a problem. When I work evenings I am just not home plain and simple. The evenings are when the family are home. So when do I have time to be with them?

With just one day off together and you are trying to do all your running around plus trying to relax together at the

TABLE 8

Time to Relax Together

<u>N = 30</u>	<u>Group</u>	<u>Satisfied</u>	<u>Not Satisfied</u>
10	D/E*	3	7
10	D/N*	3	7
10	Days	10	0

\*D/E (Day/Evening)

\*D/N (Day/Night)

same time. We can't manage everything. It's very difficult and I think it is very hard on a relationship I must admit that the first year we were together or the first two years we were together it was very difficult. It's just that we never see each other and that is hard.

The time we have together is not very relaxing. It's mostly running around doing things such as shopping or going to a show. We do not do a lot of relaxing together.

Responses by the day/night nurses (7 out of 10) focused on the fact that they have the time in the evening but the quality of time was lacking The majority of the nurses were not satisfied with how much energy they had to give to the family in the evening.

I find the quality of time is not there. I'm there in the evenings but I'm vegetating a lot of the time. I find I don't do a lot of things I normally do. Sometimes I don't

even attempt to try and stay on top of all the laundry for instance. I vegetate when I need to vegetate and when my energy is up I do what I need to do. I'm convinced it is the shiftwork. I don't have the energy to give quality time when I do relax with my family.

We have the evenings so we can do things and relax with each other. But it depends on me. What we do depends on how tired I am, and I am most often too tired. Therefore, if I'm too tired I'm not great to relax with.

In the evenings I can relax with the family. But I'm pretty much a zombie. I usually come home and go to sleep, but if I get up early I'm pretty zonked, and then no one wants to be around me.

Every nurse who worked permanent days (n=10) felt that they had enough time to relax with her family. Again, the major reason for this feeling of satisfaction was that they worked the same hours as the rest of the family.

My husband works the same schedule as I. There is definitely no reason why we can't relax together.

Relaxing together is not a problem because I work the same schedule as the rest of the world.

I'm very satisfied with the amount of time I have to relax with the family. I work straight days which is similar to the family's schedule, so we have time together.

Overall I suppose time to relax together is very good. I get every weekend off and every evening. My husband and I are off at the same time. I'm home when he is home; therefore we have the time to relax with each other.

My husband works the same schedule as I do. There is definitely enough time for us to relax together. We really enjoy having the time together because I used work shifts. We know what it is like not having the time together.

I do not find that my work schedule interferes with the amount of time I have to relax with my family. But I work straight days which is the same time my family works.

3. Female nurses' perceptions of the effect of shift schedules on attendance at special family activities -responses which reflect the nurses are limited in their attendance at special family activities such as Christmas, New Years, and birthdays exemplify this category.

Discussions and statements in this category are discussed in the three comparative groups. Table 9 illustrates the data.

TABLE 9			
<u>Attendance at Special Family Activities</u>			
<u>N = 30</u>	<u>Group</u>	<u>Satisfied</u>	<u>Not Satisfied</u>
10	D/E*	1	9
10	D/N*	0	10
10	Days	8	2

\*D/E (Day/Evening)  
\*D/N (Day/Night)

The majority of the day/evening shift nurses (9 out of 10) stated that they often had to miss special family activities because of their work schedule

My work schedule does affect family activities . For example, when I was working over Christmas the family was planning to get together on Boxing Day. I wasn't able to because I was working. The only reason I got together with the family on Christmas Day was because a fellow worker asked me if I wanted it off. I nearly fell off my chair. I know the offer was a special circumstance and it was the only way that the family managed to celebrate Christmas together.

Family get-togethers such as birthdays are problems because I can't attend. When my husband's family celebrates birthdays everyone in the family gets together. They phone and ask if I'm off and my husband will say no. If they can't reschedule the party I have to miss out.

Attendance at special family functions, for example a birthday, is definitely a problem. Recently my Mom tried very hard to plan a birthday supper at a time when I could attend and she found it difficult. If the time was convenient for me, unfortunately the time was not convenient for the rest of the family. I only had time off during the week and everyone else has young children and could not accommodate my time off. I felt very sorry for my mom. I had to miss the get together.

I think missing special family activities is the worst thing about my work schedule. I hate to be alone on holidays but if I am working there is nothing I can do about it. I find that missing family get togethers is very difficult and so does my family.

The day/night nurses responded (10 out of 10) that attendance at family activities was definitely a problem. If the nurses worked the night shift and the activity was in the evening they had to leave early or they would not go at all. Many holidays such as Christmas were missed because of shift schedules of the nurse.

If I'm working nights I have to leave family get-togethers early. The family tries to celebrate birthdays when I have a day off. That is not always possible and I have to miss out!

I've been away from home for five Christmasses now and haven't been able to get home. I was a new employee and never attempted to get Christmas off because many co-workers had children and wanted Christmas off more than I did so I worked.

Family activities tend to be planned when I am off or I miss them. Christmas or special occasions that I must work and can't trade off are celebrated at different times. Long weekends tend to be a problem.

I will give you two examples of family activities I have missed. A 25th anniversary was to be celebrated in Winnipeg and my family wanted to attend. They knew I was working so they asked my husband and my brother, who was visiting us, to go. When they came to pick up my husband and brother they didn't want to come in the house. They knew I was working nights and they didn't want to wake me or upset me because I could not go to the anniversary. They were right I was upset but I wanted to see them. When they came at 10 A.M. I stayed awake so we could have a short visit. However, my parents were not even going to come in for a coffee. They were just going to pick up my brother and husband and go. I begged them to come in for coffee and they stayed for only 40 minutes because they didn't want to disturb my sleep. That made me feel very down. Another example is that my family are avid skiers and we can never go with them. The weekend we could be with the family is usually just after they have gone skiing the previous weekend. So we never go, I miss out on those things.

Only 2 out of 10 permanent day staff felt that their schedule affected attendance at family activities. These two nurses are the only permanent day staff who work weekends and all holidays. The remaining 8 nurses work Monday to Friday with holidays off.

Family activities can be a problem. I always have company at Christmas. This year my parents and brother came from B.C. They were here 2 weeks between Christmas and New Years. I

had meals to prepare for everybody. I worked December 22nd to the 27th. I wasn't at home for Christmas morning for the first time. Usually I worked nights or evenings on Christmas. My girls and the rest of the family resented me working Christmas this year, because I wasn't around.

My work schedule does interfere to the extent that I'm tired in the evenings. If any family activities occur then I guess I could attend but I'm too tired to enjoy them.

Eight out of the 10 permanent day workers stated that the work schedule didn't effect attendance at family activities. Again the reason was that they worked normal hours like everyone else.

The work schedule certainly did affect attendance at family activities when I was working shift. I found that having to miss family activities was very stressful. I really couldn't handle missing events like Christmas dinner. I think I would quit nursing if I had to do that all the time. You just miss out and I don't like that. I think I have eliminated a lot of that by going to the day job, because now I can attend family activities.

I work normal hours. I don't conflict with everybody's stats and holidays. Therefore, I am usually off when most of the family is off and I can attend family activities.

I have all the stats off so my schedule is the same as everyone. Therefore, attendance at family activities is never a problem.

My schedule does not interfere at all with attendance at family activities. My daughter's schedule does but not mine. She is a shiftworker and we find that she misses out on a lot of family get togethers.

My schedule really doesn't affect family activities. The only time it might is when the children have their birthdays on a week night. I generally have their parties on the weekend. They don't seem to mind that at all.

4. Female nurses' perceptions of family feelings toward their shift schedule -referred to responses which reflect how the families view the nurses' shift schedule.

Discussions and statements which represent the data will be discussed in each of the three comparative groups. Table 10 illustrates the data.

<u>Family Feelings Toward Shift Schedule</u>					
<u>N = 30</u>	<u>Group</u>	<u>Like</u>	<u>Do Not Like</u>	<u>Used to it</u>	
10	D/E*	0	6	4	
10	D/N*	0	10	0	
10	Days	10	0	0	

\*D/E (Day/Evening)  
\*D/N (Day/Night)

Early in the data analysis it became evident that the nurses' perceptions of how their family felt about their work schedule depended on what shift they work. The day/evening shiftworkers (N=10) expressed two general

themes. One theme was that their families do not like the shift schedule (n=6).

The family doesn't like the shiftwork. Because when I am working evenings I am not at home, I'm never around. I will say to the children "you never told me that." They reply "I told father because you weren't here."

The family doesn't like my working evenings. They worry when I leave the hospital late. "How well lit is the parking lot?" they ask. The family would like me to work days.

I think that if I told them I was going to try some other job they would be very, very happy. Hurrah! I think they see me dragging my feet and having no energy to pay attention to them. That bothers them too.

The second prevalent opinion is that the family has adjusted to shiftwork and they are used to the work hours (n=4).

My husband has probably just grown used to my working evenings. I think my family are still in awe of the fact that I am a nurse and work in the hospital. A lot of lay people have that awe so they just see that shiftwork comes with the territory. Shiftwork is just part of the job. They see that before they see a problem with shiftwork.

They have adjusted to the shiftwork because they have grown used to it. I've worked like this for many years so it doesn't bother them now.

I guess everyone is accustomed to my shiftwork, but it is still a burden, a pain that gets in the way.

The day/night nurses were unanimous in stating that their families did not like their shift schedule. Responses such as "hate them", "none of them care for the shift", or "it bothers them", express the families' feelings.

The family doesn't like my working nights, but what am I going to do? I have signed a contract and this is what I have decided upon and this is what I do.

The family feels sorry for me. My working nights bothers them because they don't get to see me often. It is very difficult for them to understand because none of them have worked shift. So it is hard for them to understand why I have to work all the crazy hours, and can't attend activities, and why I am more tired then when I have had 7 hours of sleep.

The family hates my shift schedule too. I don't think there's anybody among my mother, sister, or fiance that cares for the shiftwork at all. The family doesn't like what the shiftwork is doing to me. They don't like my being grouchy.

Two of the nurses reflected that their families did not like the shift hours, but they were used to the nurses working the shift.

The family has gotten used to the shift work by now. Until I decide to quit or cut down, there is nothing they can do about it.

I think the family has just realized I can't do anything about the work schedule, so they just accept it.

The entire permanent day staff responded that their families were happy with the hours of work. Responses such as "happy", "elated", and "no problem" typified the feelings of the nurses' families.

The family were elated when I started working the day shift. It was just wonderful, you know like a bonus.

The family really likes my work schedule. Especially compared to when I worked shift. They are very happy with these new hours.

My daughter would prefer if I went to work at eight AM because that's when she leaves home. But we can't have everything. In general she really likes my working just days.

I think it is great that I'm able to work days. My family also feel the same way.

5. Female nurses' perceptions of the effects of shift schedules on the parent role - referred to responses which reflect the attitude that working shifts affects their roles as parents.

Discussions and statements that represent the data are discussed in the three comparison groups. Table 11 illustrates the data.

<u>N = 16</u>	<u>Group</u>	<u>Effects</u>	<u>Does Not Effect</u>
4	D/E*	1	3
5	D/N*	3	2
7	Days	2	5

\*D/E (Day/Evening)  
\*D/N (Day/Night)

Time to be with the parent emerged as a problem when working shift. Nurses with young families as opposed to those with older children appeared to perceive that their shift schedule interfered more with their parenting role. Only 4 out of 10 nurses who work the day/evening schedule were parents. Three out of four nurses stated that their schedule did not interfere with their role as a parent. All these nurses had adult children.

Now that my children are adults, I doubt if my shift work has a great deal of affect on them.

I have enough time with my children. Now that they are adults they have their own things to do. It really doesn't matter if I work shift as far as they are concerned. They don't need me.

The one nurse who felt that working evenings affected her role as a parent had a younger child.

The work schedule interferes a lot. Working evenings especially interferes because I am not there to put my son to bed. He really minds it when I'm not there. My son has complained since he was old enough to understand. He accepts it but he still will say "Oh do you have to go to work tomorrow" or "couldn't you stay home with me" so you know, shiftwork really interferes.

Half of the nurses who worked day/nights (5 out of 10) were parents. Three of the nurses stated definitely that their work schedule affected their roles as a parents. The main concern was that the nurses were too tired to have quality time with the children.

Actually I think the problem is with me not the kids. I think it is harder on me to work the nights than it is on the kids, because they get to see me before school and after school. But the sacrifice is on my part. They have a really depressed, tired, and irritable mother. They really notice it when I'm on nights.

I have the evenings with the children. When I'm working nights I really don't want to have evenings with anyone. When I'm working nights I find I'm more short tempered and more apt to be short with the kids. I'm raising three teenagers and with all the games they play, I really have to have my act together all the time. I find that when I'm on nights I can be rather a bitch. So working nights does influence how I am with them. When I'm working nights I'm here physically but not mentally. I really don't have a lot of energy when I work nights.

The work schedule definitely interferes with the kids. For example not being there to take your kid to some extracurricular activities they are involved in. The tiredness and the working seven shifts in a row interferes. I am crabby and it is hard to be nice to everyone. Our eating patterns are erratic. My son often has to prepare some of his own meals.

The two nurses who expressed that their work schedule did not affect their role as a parent had adult children.

I'm at home if they want to talk with me in the evenings. However, they are not a very talkative pair. I don't know if you have boys but wait until they are 21. I'm there in the evenings if they have a problem. Supper time is one of the most important times. So the work schedule doesn't affect my sons because they are older. I think it would if they were younger.

I have 3 children and they are grown up. The work schedule doesn't affect my role as a parent now as much as it did when they were smaller. Then it was really bad. But I guess now my work schedule affects the time they feel they can come to visit. My children tend to stay away when I am on nights. I guess in some way my work schedule does affect them.

The majority of day workers (7 out of 10) were parents. Five out of 7 parents stated that their work schedule did not affect their role as parents. Responses reflect the the fact that these nurses work a normal schedule with weekends and evenings off.

I think working straight days with weekends off gives the children an overall structure of security. They know where I am, when I am here, and how to reach me. My work schedule is more normal. If my daughter wants to get a hold of me she knows who to get in touch with and we have our holidays off together.

When I feel my schedule is affecting my daughter or she is being deprived then I will just get out of my job. I have a normal schedule with evenings and weekends to share with her. So far my work schedule has not affected my role as a parent.

The day shift schedule has allowed me more time with my kids. One reason I have worked straight days this long is for the children. They go to school in the morning and we're home in the evening. I can spend time with them. My work schedule is more normal, so it works out well.

The schedule hasn't posed a problem with the parenting role. I have worked this schedule now for eight years. When the children were still in school I would save up my days off for teacher interviews and that sort of thing. The work schedule has never interfered.

My girls were so elated when I got this day job. It was the most wonderful gift I could have given them. Both my girls say adamantly that they would never go into nursing because of the shiftwork. Now I work like everyone else and they think it is great. My schedule doesn't interfere with my children.

The two nurses who felt that the work schedule did affect their role as parents gave different reasons why

it did that. One nurse stated that after work she was tired and could not take her child to as many activities as she should.

Working days does to a certain extent affect my role as a parent. I don't take my daughter to as many activities as she would probably like to attend. Because if I come in and I am tired it is really a chore for me to get up and take her out.

Working weekends tends to create a problem with one nurse and her children:

Working weekends and being away on holidays affects my role as a parent. However, I'm so pleased to be working this schedule that when my girls do complain about me working a weekend I really try to downplay it. I think it is great to finally get a day job in nursing.

#### Affiliative.

1. Female nurses' perceptions of their friendships with other shiftworkers -referred to responses which state forming and maintaining friendships with other shiftworkers were difficult.

Discussions and statements which represent the data are discussed in the three comparison groups. Table 12 illustrates the data.

The entire day/evening rotation of nurses (10 out of 10) stated that forming and maintaining friendships with other shiftworkers was difficult. The difficulty seems to be the

TABLE 12

Friendships with Shiftworkers

<u>N = 30</u>	<u>Group</u>	<u>Difficult</u>	<u>Not Difficult</u>
10	D/E*	10	0
10	D/N*	10	0
10	Days	10	0

\*D/E (Day/Evening)

\*D/N (Day/Night)

amount of time needed to co-ordinate time off together to engage in social activities.

There is a group of nurses who work shiftwork. We chum together all the time and we go out as couples. We always have a terrible time when we try to plan something to do. We planned a get together on the Lord Selkirk last summer. It took months to get a weekend everybody was available. Even then two girls were not available. They had arranged time off so they could be available that night. Shiftwork makes it difficult to get together.

My social relationships with other shiftworkers suffer because I just don't have the time to get together with them. Occasionally we get together to go to lunch. That is about all we can arrange to do together because our shifts conflict.

Friendships which have developed over the years have been with people who have decided quality of time is more important than quantity of time. My friends may see me only once a month or every two months. There is just not enough time to get together. If my friends work shift it is even more complicated.

My friends are basically the people with whom I work. They all work various shifts. I don't see them very much. It tends to be a problem trying to get together with other shift workers. It is impossible.

Friendships are difficult, especially those with other nurses working opposite shifts. I don't see them. There is one friend I have that I don't see very often. We recently changed our shift schedule so we would have more time off together. But she had to go back to her own shift. Therefore, we do not see each other very often.

I might be socializing more with people I work with if we didn't work opposite shifts. We talk about doing things together and then we have to ask "Are you working then?". We'll plan dinner together and then have to wait a month until we can get a day off together.

If my friends were just people who worked shiftwork quite frankly I don't think I would see them at all. I really don't. Most of my friends have daytime jobs so they can be a little more flexible. They work around me a little more.

Most of my working friends work shift which is a problem. We are always trying to find a time to get together. I would say that the majority of my friends work shift. We never seem to get together, but at least we understand each other.

My one friend works shift and that is a problem. We work opposite shifts. We don't have any days off together and it is a problem. The shiftwork limits the time we spend together. It cuts drastically into our time, drastically.

Nurses employed on the day/night schedule (10 out of 10) also indicated that having time with friends who are shiftworkers is a problem.

Most of my friends are nurses. Not everyone is working the same shift. Co-ordinating time together is a problem. I just don't have the incentive to get together. It is a problem to be with friends that work shiftwork.

My best friends are shift workers. Therefore, it is difficult to get together because people are on opposite schedules.

My friends work quite different shifts than I do. They are shiftworkers as well but they work opposite shifts. That is why I never see my best friend because she works days/evenings. I have developed other friendships at work and I think it is because I tend to see them more often if they work the same shift.

Very few of my friends are shiftworkers. Since I started the day/night rotation it is impossible to get together. I just find that I do a lot more phoning around to keep in touch with people than actually seeing them. It is the work schedule that affects relationships with friends who are shift workers.

I don't socialize very much with other nurses who work shift. I find it too difficult to get together with shiftworkers. Most of my friends work days.

Not very many of my friends work shifts. We could never find the time to get together. Most of my friends are teachers, house wives, or office workers.

None of my friends work shiftwork. Most of them work straight days or don't work at all. I found it too frustrating to try and get together with other nurses who work shifts.

Nurses working permanent days (10 out of 10) all stated that they have a problem getting together with friends who are shiftworkers.

The fact that friends work shiftwork poses a problem. Our schedules don't correspond so we have a hard time seeing each other.

I find seeing friends who work shiftwork very difficult. My best friend works day/nights and it is almost impossible to get together with her.

Most of my friends at the hospital work shiftwork, therefore getting together with them is a nightmare. It seems to take months to coordinate time off together.

I have two friends who work shiftwork. Getting together with them is definitely a problem. I find they have to really balance their time in order to see friends. But I don't work shift I work straight days so I am always available when they can find time.

I find trying to get together with my nursing friends who work shiftwork is impossible. They have families as well and they have to make time for their families. There never seems to be enough time for them to combine family and friends. Needless to say friends get left behind.

Friends who work the same schedule as I straight-days are easier to see than my friends who work shiftwork. We never seem to get together because my shiftwork friends can never find the time.

2. Female nurses' perceptions of the effects of shift schedules on time to communicate with friends and family. -referred to responses which reflect whether or not the nurses have enough time to communicate with friends and family.

Discussions and statements which represent the data are discussed in the three comparison groups. Table 13 illustrates the data.

Nurses who work day/evening rotation were divided as to how satisfied they were with the amount of time their work schedule allowed them to communicate with friends and family. Over half (6 out of 10) of the nurses were not satisfied with the amount of time. Generally the main reason was that the evening shift limited the amount of time the nurse have to talk with friends.

TABLE 13

Time to Communicate

<u>N = 30</u>	<u>Group</u>	<u>Satisfied</u>	<u>Not Satisfied</u>
10	D/E*	4	6
10	D/N*	1	9
10	Days	10	0

\*D/E (Day/Evening)

\*D/N (Day/Night)

Time to communicate is a very common complaint I get from everybody. You can never catch me at home when I'm on evenings. While I could probably have a conversation with somebody in the afternoon before work, everybody else is at work in a day job. Even talking to my parents or my siblings is very difficult. There are long gaps when I haven't spoken to anybody for a while.

I find it difficult to keep up with people. Especially if they are working a day job Monday to Friday. They don't understand what shiftwork does to me and they don't understand that I don't have time, even for my spouse.

It's difficult when people phone and ask to get together on a weekend or an evening and I'll say, "no I'm working evenings". I tell them I will phone back when I'm free. I'm so tired by the end of the week that the call never gets made I just can't find the time to even call. So even talking to friends is a problem.

If I worked just day shift time to communicate wouldn't be such a problem because most of my friends and family work days. However I can't phone them or visit them after midnight. So my schedule does interfere with my talking with friends and family.

Often there is not enough time to talk to family and friends. I find lots of time it will just pop into my head that I haven't talked to my grandmother for three weeks. It is not because I didn't want to but because I've been busy at work and I haven't had the time.

When I'm on the evening shift there are lots of times I don't get home until midnight. I probably don't get to sleep until two a.m.. I need my eight hours of sleep. I unplug my phone. It is hard for people to get a hold of me and I don't have the time to get in touch with them.

Various reasons were given as to why 4 out of 10 day/evening nurses felt that they have enough time to communicate with friends and family. One nurse found that she was satisfied with the amount of time because most of her friends and relatives did not work. She could see and talk with them on her days off, and when she worked days she could see them in the evening.

My work schedule doesn't interfere at all with my time to communicate. I really like evenings because a lot of people that are my friends or relatives do not work. I know I can see them on my days off. I have lunch with them. I have lunch with somebody every day when I work evenings.

Two nurses stated that they found their work schedule allowed sufficient time to communicate with others because they initiated the contact when they had time.

I can always get in touch with friends and family in the daytime or later regardless of when I'm working. If I am working days I talk to them during the evenings; if I am working evenings, I talk to them during the day. Perhaps when I'm working the evening shift I talk to them less but it has never been a major difficulty.

One nurse stated that her children were grown and that she was not very active socially. She found her work schedule allowed her sufficient time to communicate with friends and family.

When the children were small time to talk with them was a problem. Now they are grown so my work schedule doesn't affect the time we talk together. They really don't need me like they used to. They have their own lives. It is different when the children are young. As I mentioned before I'm not socially active so it doesn't seem to be a problem.

The majority of nurses working the day/night shift responded that (9 out of 10) finding time to communicate with friends and family was a problem. The nurses were not satisfied with the amount of time that their work schedule left them to talk with significant others. The day/night workers rely on the telephone to keep in touch with friends and relatives.

I'm not really satisfied with the time I have to talk to friends and family. I guess I could see or talk with them in the evenings but I just don't seem to have the energy to call them up. I guess I do a lot of talking on the phone. I don't write as many letters as I would like to. Quite a few of my friends are nurses. They know when I am off and when to call. I guess I do most of my communicating by phone.

People try to keep in touch by phone but sometimes people will phone and wake me up. My relatives outside the city write letters and phone. I just can't seem to keep in touch with them.

Finding time to communicate is a difficulty because people who are closest to me are working. They hesitate to phone because they don't know when I'm working or when I'm sleeping. Unless I take the initiative other people don't. I start to feel isolated and I feel that if I don't call, people won't care. I lose my perspective. It's not that they don't care. They say "I'm afraid to call you because I don't

know when you're up or when you're sleeping" I can call up and give people my schedule but they forget what it is. So I think you can quickly get out of the mainstream of things. I feel like I am out of the mainstream.

Well I'm not satisfied with the amount of time I have to get hold of people even just to talk. My friends realize I'm working days and nights but they get rather frustrate because they'll phone here when I'm not home. They will just keep calling until they get a hold of me. The only contact I really have is by phone.

I depend on the phone to keep in touch because I don't see them a lot. It's kind of awful, second best I guess, but I find I even have to call from work sometimes. I rely on a lot of phone calls.

For me it is the lack of energy. I have two grown children who are mobile so I can talk to them in the evenings. But when I'm on nights I don't seem to have the energy needed to discuss things with them.

The one nurse who worked days/nights and felt she had enough time to communicate with significant others also depended on the phone to keep in contact with them.

My work schedule really doesn't interfere too much with my communicating with friends or relatives. When I work nights people usually phone me on evenings. They know when I'm usually awake in the evenings. If they call me and I'm not awake I just tell them I'm not interested in talking and hang up. So it's sort of up to me to call them whenever I'm awake.

Every nurse who worked the permanent day shift was satisfied with the amount of time she had to communicate with friends and relatives. The majority of the responses indicated that the nurses felt that working days was similar to the working hours of the majority of the working population; therefore, time to communicate was not a problem.

I work days so when I get home I can call my friends and family or go see them. If anyone wants to see me they can. my working straight days has really helped. They always know when I'm home and can call in the evenings.

I have no difficulty with communicating with friends or relatives at all. My schedule is very flexible and I'm home in the evenings. If anyone wants to get a hold of me I'm here; I'm accessible. It works out well.

I'm busy in the evenings and that interferes with my talking with friends and family. But the problem is not with the work schedule.

Having time to communicate is no problem. I work a normal schedule Monday to Friday with the type of job that I have I can make a phone call to my mother. I can take 10 minutes at work and do that. I talk to my husband once or maybe twice a day. It is brief but at least I have the flexibility to do that.

I'm home when everyone else is home; therefore, time to communicate is not a problem.

Everyone I know seems to work days and since I work Monday to Friday with every weekend off I don't find time to talk to friends and family a problem.

I work the same as the rest of the world, Everyone knows when to get a hold of me. I'm always home in the evenings.

Most people are at work during the day. I have the evening and weekend to get together and discuss things. I find it easier to talk to friends and family now I'm working days.

The day shift is fantastic for talking and getting together with people. I now work the same schedule other people work.

3. Female nurses' perceptions of the effects of shift schedules on the role of spouse/mate -referred to responses which reflect that the spouse/mate complains about the lack of time together, and the nurse feels the shift schedule creates stress in the relationship.

The emergence of this theme was apparent early in the data collection process. Discussions and statements which exemplify the category are discussed in the three comparative groups. Table 14 illustrates the data.

<u>N = 22</u>	<u>Group</u>	<u>Effects</u>	<u>Does Not Effect</u>
8	D/E*	8	0
6	D/N*	6	0
6	Days	0	6

\*D/E (Day/Evening)  
\*D/N (Day/Night)

Eight out of ten nurses employed in the day/evening shift are currently in a spouse/mate relationship. Every nurse who

was involved in a spouse/mate role stated that the shift schedule did affect their relationship. Lack of time to be with the spouse/mate was given as one of the major affects (7 out of 8) when working evenings.

The shift affects us. My husband does a lot of traveling as well. We just can't seem to get it together. He's away when I'm either on my days off or on days when I'm on evenings. I'm usually working evenings when he is in town. So it does affect our time together.

My significant other or mate, whatever you want to call him, works straight days and has weekends off. So that means while he's at home I'm at work, and when I get off work he is sleeping. Just in terms, of time my work schedule interferes with my relationship. He has to find other things to do. He can't just sit around waiting for me all the time.

My husband always complains because when I'm on evenings he goes to bed late. He waits up for me so that we can spend time together. He goes to bed late and gets up very early the next morning. He gets as tired as I do because he is waiting up for me.

One nurse stated that time to be together was a problem. She perceived herself as not fulfilling the wife role, which was a concern in the relationship.

It is a struggle to work out a relationship when I never see him. When I do finally see him we spend the time catching up on what has been happening to each other for the previous few days or week. I have to get to know him all over again, and that is really difficult. It is hard. Sometimes I often think I'm not a very good wife. My house isn't clean and I get frustrated with myself. I keep saying to myself "why can't I be like the lady next door? Why can't I have that beautiful clean house? Why don't I have the time to sit and do the sewing I want to do, or just do the things I want to around the house?" I get frustrated with myself. I ask myself is it worth it? Is it worth working, being half a spouse, and half a nurse?

The day/night nurses who were in a spouse/mate role (6 out of 10) stated that their shift schedule definitely affected their role as a spouse/mate. Responses reflected the nurses' dissatisfaction because of the lack of energy they had to give to the relationship.

Working nights is hard on us. My husband even feels it. I would like to be left alone and quiet on the couch when I get up. I make supper and that is the extent of the evening. I'm more irritable for some reason even though I sleep all day. I'm more tired, I lack energy, and I don't feel like going out. That affects my doing things with him and it is difficult.

The night shift is difficult on our relationship. My husband works straight days and of course he gets evenings and weekends off. It makes things difficult. He does things I wish I could do. Our relationship is affected by my working nights. The quality of time is just not there. I'm too tired to be interested.

Working the night shift really affects our relationship. When I work nights I find I'm just too tired even to talk in the evening. I'm continually aware I have to go to work. The schedule definitely does affect my role as a wife.

My husband likes to go away weekends and I just can't go with him. For example, I was working nights and a social function arose he couldn't go to himself, so he didn't go. That makes things very tense. Working the days is really not a problem, it is the nights. We don't do anything when I work nights he comes home and tells me to quit or to go casual.

Our lives revolve around my work. There are activities he misses because of my schedule. That makes the relationship very tense.

Every nurse employed in the permanent day shift (6 out of 10) who were involved in a mate/spouse relationship stated that their schedule did not affect their role as a spouse/mate.

I don't think working days bothers our relationship at all. We have our evening together. The weekends I work tend to be a problem because we have things we like to do together. But it is much better than working shift.

My schedule doesn't affect my role as a wife at all. My husband leaves for work the same time and he gets home an hour after I do. So I work the same kind of schedule.

My schedule doesn't affect my role as a wife anymore. When I did work shift it was terrible. Now I'm working straight days Monday to Friday. Therefore, my work schedule is no longer a problem.

4. Female nurses' perceptions of the effect of shift schedules on dating relationships -responses which reflect a difficulty in forming and maintaining dating relationships exemplify this category.

The day/night shiftworkers who were single (4 out of 10) expressed the frustration they have with trying to establish and maintain a dating relationship with males. The day/evening and permanent days groups did not express a difficulty with dating. The nurses on the night shift were the only ones who expressed these sentiments. Responses such as "I don't meet many men because of the work schedule", "arranging time together is difficult", and "they don't have the energy to establish a relationship" exemplify this category.

I think first of all my work schedule cuts down on the amount of time I socialize I don't meet many people. Right now I go out with someone who lives out of town. Often he will come into town on my days off or I go out and visit him. When I dated people in town, I didn't go out and do

much because I would always get up and not feel like functioning. I just could not go out for supper or something like that. By the time I get up and go for supper it takes up the entire evening. I wouldn't have time to go to a show. Or if I did go to the show I would have to dash right away. So the work schedule really interferences.

I just met a fellow who works straight evenings and I work day/nights. We are trying hard to make arrangements to go for supper and it is horrendous. It is hard to co-ordinate time together. Nothing can be the spur of the moment; everything has to be planned.

The schedule really interferences with dates. I have to leave by the time a social event starts to get going. I have to work weekends and I always get certain weekends off. If the man works business hours, travels, or entertains a lot you never get to go out with him and that makes things tense.

I don't have as much time for dating as I would like. It is hard to get together with men because of my shift. Often I have to cancel a date or turn it down because I'm working. So I find it difficult. Especially if it is someone you don't know well. It is hard for them to understand you have to work shift. I would say it is hard for me to start a relationship because I work shift. I think some people have an aversion to people who work shift too. I tell them that I work nights and often I have many problems socializing. I'm not really in a dating relationship right now. I've a few casual relationships. That is all I have found time to have. Men get discouraged easily because I have to turn them down when they phone me. I turn them down not because I have another date but because I have to work. I do not have a regular job that finishes at five pm.

#### Communal.

1. Female nurses' perceptions of the effects of shift schedules on attendance at social activities - responses which reflected the nurses perceptions that attendance at weddings parties, socials, and social engagements was limited exemplify this category.

Discussions and statements which exemplify the category are discussed in the three comparative groups. Table 15 illustrates the data.

<u>N = 30</u>	<u>Group</u>	<u>Satisfied</u>	<u>Not Satisfied</u>
10	D/E*	5	5
10	D/N*	0	10
2	Days	10	0

\*D/E (Day/Evening)  
\*D/N (Day/Night)

The nurses of the day/evening group were equally divided as to the affect of their work schedule on social activities. Five out of 10 stated that their work schedule did interfere with attendance at social activities. Nurses described how the work schedule affected attendance at social activities and what they had to do if they wanted to attend.

Working day/evenings does intrude on attendance at social activities. If I want to participate very badly, I have got

to wheel and deal to change a shift. That has its problems too. Sometimes it is not feasible for other nurses to switch shifts with me. They would be very willing to change but can't. Again if I change I might find myself working a whole stretch with only one day off.

Invariably social activities are scheduled in the evening. The shift is based on the expectations that we work seven evenings in a row. If a social activity is very important I have to get someone to trade with me, or I might have to make alternate arrangements. This means I lose the money in the shift, or I have to give the shift away if that's possible. That is not always possible.

I always seem to get invited to parties when I'm on evenings. I have to turn them down quite often. As a matter of fact it just happened last month.

I'm totally dissatisfied. My work schedule really doesn't give me much personal time. I work two weekends in a row and I get two off. But those are after long stretches and to tell you the truth I'm too fatigued to think about going out to social activities.

Although (5 out of 10) of the day/evening staff stated that they were satisfied with the time available to attend social activities, four felt that it was because they had a flexible unit director.

Having time to attend social activities doesn't seem to be a problem. I think it is because our unit director is so flexible. She tries to get us time off if we need it. Get-togethers are a problem if I work evenings and can't switch but I get used to it.

I'm quite satisfied because the unit I work on is very flexible. Our unit director is very flexible so we can have off any days we need. Sometimes we trade, ask for a leave of absence, or take a vacation day. Even if it is at the last minute, when we need a day or two, it is no problem.

There's no problem because our unit director is very flexible in giving LOA's or vacation when we need it. I don't think it is a problem at all. Maybe it is because our unit director is so flexible.

One nurse stated that time for attendance at social activities was not a problem because she was not socially active.

Well it doesn't present a problem for me because I don't have a very active social life. I don't go to weddings. I think I have been to one wedding in the last five or six years. I adjust my social life to my work schedule. If I have any problems for any special event I can always switch with my co-workers.

The entire group of day/night nurses stated that having time to attend social activities was a problem and they were not satisfied with it. The nurses expressed frustrations at having to miss the activity or having to alter their schedule.

I don't attend half of them. I miss out on most weddings. This year we were supposed to attend two and I missed both of them, I couldn't get them off. I didn't try because it would have been too hard.

Sometimes I'm not too happy with not being able to attend social activities. It is on the nights it tends to be a problem. None of the casuals want to work nights. The casuals are used to working days. Stat holidays are not given on nights, so if you are working nights you have to be there.

I think my schedule restricts what I do as far as parties and those sort of things. If I have to go it's always weekends when everyone else is off. If I have to work the next day I don't go out as much. Sometimes it is hard to switch shifts, to go out after work, or to go to a wedding before work.

Another theme which emerged was if the nurse attended an activity in the evening, they inevitably had to leave early which creates tension.

If you are working nights you tend to leave early or you don't go at all. If you are working days on the weekend you tend to not enjoy yourself as much. I always like to get to bed at a good time.

When I'm on nights I find I invariably have to curtail my activities so I can go to work. Which means that 9:30 pm to 10pm is the maximum I can be out. Most often I find I need to sleep in the evening.

If I go out before the night shift I won't have as much fun. I won't relax and it is in the back of my mind that I have to go to work. Most things start late so you are only there for an hour or so and then you have to leave.

Nurses working the permanent day shift all responded attendance at social activities was not a problem. The nurses reflected they work days so they have their evenings off. The majority of them also have the weekends to attend social activities.

Since I have been on days I think we have at least three times as much social life as we used to have.

Because I work only days I'm pretty satisfied. I do have time to do all those social activities because I only have to work one weekend in three so that is not too bad.

I work days and most social activities happen on days or nights on the weekends. So I'm free. I don't work 7 shifts and I don't work weekends.

I'm very satisfied with the amount of time I have to attend social functions. I do not find it a problem at all. I have every weekend off and I have every evening.

Social functions occur in the evenings and on weekends so I am very satisfied with working days. It allows me to attend those activities where I couldn't when I was working shift. You actually feel a part of the social scene.

I'm very satisfied, because I only work Monday to Friday and parties and function happen on the weekend. So I don't find it a problem.

### Intrapersonal System

#### Ego-Control.

1. Female nurses' perceptions of the effects of shift schedules on their own emotional reactions -referred to responses which reflected a difference in their ability to cope, their reactions to stress, and their level of irritability.

One category emerged which reflected an effect on the intrapersonal system of the nurse. Specifically the category exemplifies an effect of the ego-control sub concept with the intrapersonal system. Discussions and statements that exemplify the category are discussed in the three comparative groups. Table 16 illustrates the data.

Nurses employed in the day/evening schedule (9 out of 10) indicated that they had altered emotional reactions to stress while working evenings. Responses such as "noticing a lack of energy", "increased temper", and "not able to cope" were often given as examples.

My work schedule creates stress. Trying to find time to be together is a problem. When we find time together I'm so tired I don't have a lot of energy to give to the relationship. He interprets that as withdrawing. But it is not that in actual fact. I react differently to stressful situations; I'm a lot crabbier.

TABLE 16

Emotional Reactions

<u>N = 30</u>	<u>Group</u>	<u>Effectuated</u>	<u>Not Effectuated</u>
10	D/E*	9	1
10	D/N*	9	1
10	Days	0	10

\*D/E (Day/Evening)

\*D/N (Day/Night)

I'm probably more tired working evenings and my temper seems to be a little bit shorter. Things worry me more; therefore, my reaction is probably quicker than it should be.

I never seem to get ahead of being tired and I can never catch up on everything that I have let slide for two months. I just can't seem to get myself organized again. If I have a major stress in the family on top of working shift work I find it is even harder on me.

If you have a lot of heavy stressors at work and a lot of personal stresses and you work shift, coping is very difficult. Mentally and physically I don't think two days off when swinging from a shift is long enough to cope with everything.

Nurses working the day/night shift (9 out of 10) also stated that their shift schedule altered their emotional reactions to stress. The most common response was that the nurses experienced increased irritability.

I guess when I work nights I have a really short temper and I am more irritable so that affects the family.

Because of the fact that I'm not home most of the time when I work nights I find I have a short temper. I'm pretty selfish in my own way I feel like my own schedule is more important than anybody's. I am cook and housekeeper, and I get pretty abnoxious and that creates stress.

The shift schedule does affect my emotional reactions to problems and anything that happens. For example, I will get a bill in the mail and instead of reacting logically about it I will scream, or I will cry, and I think that is really stressful.

I find working this schedule makes me quite depressed. I'm looking at a change in jobs because I just can't see this going on. I am becoming an emotional wreck.

I definitely feel there is a difference in my emotional level when I work nights. On days I'm a happy-go-lucky person. On nights I find I get very grumpy and I work myself into all kinds of snits. I'll sit and daydream and get myself into a real snotty mood. When I get home I kick the cat, have a drink, and go to bed.

The permanent day nurses did not indicate that they had altered emotional reactions to stress and situations, due to their work schedule.

## DISCUSSION AND RECOMMENDATIONS

### Introduction

The conceptual framework of a study guides the researcher's endeavor to organize data systematically to comprehend events under investigation. The framework provides concepts and properties that connect the categories which reflect similar themes. The adaptation of the multiple causation epidemiological framework was supported by the data which emerged. Guidance was provided by the framework to organize the categories which reflected similar themes. Every category reflected either the interpersonal or the intrapersonal system of the conceptual framework, thus supporting the adaptation of the epidemiological model.

The study was at the explorative-descriptive level in order to identify the perceived areas of concern of female nurses in the three comparative shifts. The hypothesis under investigation was female nurses do perceive that shiftwork disrupts their lifestyle patterns. The findings which emerged from the data provided support for the hypothesis.

This chapter focuses on the concepts and categories which evolved from the data. The discussion integrates the conceptual framework and the relevant literature in the

field for each category. The discussion is guided and organized by the major concepts of the conceptual framework, supported by the data. The major concepts are:

1. Interpersonal System

- a) Interactional Subsystem

1. Space

- a) perception on the effects of shift schedules on personal time to self.

2. Patterns

- a) perception of how the family re-arranges their schedule to accommodate the shiftworker

3. Roles

- a) Sexual

1. perception of the effects of shift schedules on sexual activities

- b) Occupational

1. perception of the effects of working seven shifts in a row

2. perception of the effects of shift schedules on attendance at professional activities

3. perception of shift schedule satisfaction

- c) Familial

1. perception of the effects of shift schedules on time to discuss family concerns
2. perception of the effects of shift schedules on time to relax with the family
3. perception of the effects of shift schedules on attendance at special family activities
4. perception of how the family feels about the work schedule
5. perception of the effects of shift schedules on the parent role

d) Affiliative

1. perception of the effects of shift schedules on the spouse/mate role
2. perception of shift schedules on dating relationships
3. perception of shift schedules on time to communicate with friends and relatives
4. perception of friendships with other shiftworkers

e) Communal

1. perception of the effects of shift schedules on attendance at social activities

## 2. Intrapersonal System

### a) Ego-control

1. perception of shift schedule on emotional reactions

The chapter concludes with recommendations for future research and implications for nursing from the findings.

### Intrapersonal System

The data were connected by common characteristics which reflected perceived effects of shift schedules on the nurses' interpersonal system. The interpersonal system reflects social variables and their interaction which continually influence the nurse and her perception of belonging in the cultural, socioeconomic, and interactional spheres. Themes emerged early in the data collection process which exemplified the major impact shift schedule has on the interactional subsystem. Sixteen out of seventeen categories encompass concepts of the interactional subsystem. The emergence of sixteen categories strongly supports the importance of the effects of shift schedules on the interactional subsystem.

### Interactional Subsystem.

#### A) Space

The concept of space used incorporates such social variables as territoriality and personal space. Personal

space are those activities which enhance personal well-being and self-fulfillment. The category "female perception of personal time to self", reflects activities which the nurses engage in to enhance their personal self (i.e. leisure activities).

The majority of the day/evening and day/night workers were not satisfied with the amount of time their shift schedule allowed for leisure activities. Hobbies and aerobics were frequent examples of the type of activities the nurses wanted to do for self-fulfillment. Low satisfaction with time for leisure activities is consistent with findings by Tasto et al (1978) who found that male and female shiftworkers in the U.S. were least satisfied with the amount of time they had to engage in leisure activities. Tasto et al (1978) found that the day shift nurses were most satisfied which is consistent with the investigator's findings.

#### B) Patterns

The concept of patterns encompasses social variables which organize and dictate patterns such as behavior patterns and schedule patterns. The category which exemplifies this concept is "perception of adjustment of family schedules to accommodate the nurse". The majority of the day/evening nurses stated that families did rearrange their schedule to accommodate the shiftworker. Carpentier and Cazamian (1977) noted in a study of male shiftworkers

that 1 out of 91 families did not adjust their schedule to accommodate the worker. Interestingly, only 5 out of 10 day/night female nurses stated that their families rearranged their schedule. Permanent day nurses indicated that their families did not have to rearrange schedules to accommodate them.

### C) Roles

Fourteen categories emerged reflecting the effects of shift schedules on various roles the nurses fulfill.

#### 1) Sexual Role

The sexual role concept as reflected in the conceptual framework include sexual identification and performance. One category emerged which illustrated an effect on sexual activities with the nurse's spouse/mate. sexual activity was found to be effected by shiftwork. Tasto et al (1978) found day/night shiftworkers the least satisfied with their sexual relationships, then the day/evening workers; the day workers were the most satisfied with their sexual relationships.

#### 2) Occupational Role

The concept of the "occupational role" implies reference to those activities a worker fulfills to form and maintain an occupational identity. Three areas of concern which effect their ability to fulfill their occupational role were expressed by female nurses.

i) Working 7 concurrent shifts

Nurses who worked seven shifts in a row responded (100%) overwhelmingly working seven shifts that is a major problem. Two major areas of worry included physical and emotional fatigue which occurs at the end of the seven shift stretch. Also, the thought, quality of care for patients was questioned by the end of the seven shifts. The emotional and physical fatigue of the nurses may affect the quality of care given by the caregiver to the client. A review of the literature did not locate research exploring the effects of working seven shifts in a row on either quality of care, or nurses' physical and emotional fatigue.

ii) Attendance at Professional Activities

Maintaining the professional stature of nursing includes engaging in professional activities which increase knowledge and professional commitment. The majority of the day/evening and the day/night shiftworkers were not satisfied with the amount of time they had to attend professional activities. The majority of the permanent day workers on the other hand were satisfied. Carpentier and Cazamian (1977) found that male shiftworkers tended to exclude themselves from unions and political parties which required regular attendance.

(iii) Shift Schedule Satisfaction

The majority of female nurses working the day/evening and day/night shifts were not satisfied with their shift

schedules. Discontent was voiced regarding working seven shifts in a row and having too little time off between the rotations. The majority of the permanent day workers were satisfied with the work schedule. The investigator's study showed no real difference in the level of satisfaction between the day/evening and the day/night nurses. Whereas a study conducted by Tasto et al (1978) on male and female shiftworkers found day/night workers were less satisfied with their shift as compared to the day/evening shiftworkers. Day/evening shiftworkers were less satisfied than the permanent day workers.

#### D) Familial Roles

The concept of "familial role" includes those activities that a person fulfills to form and maintain an identity within a family unit. Five categories emerged as areas of concern which reflect activities in the familial role concept.

##### i) Time to discuss family concerns

The majority of the permanent day nurses and the day/night shift workers expressed the fact that they were satisfied with the amount of time they had to discuss family concerns. Discussion could take place in the evenings. The majority of the day/evening nurses, on the other hand, were not satisfied. The evening shift interrupted time to be with the family to discuss concerns. Bast (1960) and Mott (1976) both noted that a major problem of family functioning was

the shiftworkers absence from the home in the evening (Tasto, 1978). The nurses' absences in the evening can be viewed as a strain on family life as the time to discuss family concerns is altered.

ii) Time to relax with the family

The majority of the day/night and the day/evening nurses were not satisfied with the amount of time they had to relax with the family. The day/evening workers focused on the lack of time available; whereas the day/night shift was dissatisfied with the quality of time shared with the family. Day/night nurses indicated that when working night shift, they were too tired to contribute to family relaxation in the family unit. The permanent day staff revealed satisfaction with the amount of time they had to relax with the family. Tasto et al (1978) investigated male and female shiftworkers' satisfaction with time spent with their spouses. The study noted day/night workers were less satisfied with the amount of time than the day/evening worker, who was less satisfied still than day workers; whereas the investigator's study noted that day/night nurses were more dissatisfied with the quality of time than the amount of time. Lack of time and quality of time ultimately affects aspects of family functioning.

iii) Attendance at Special Family Activities

The majority of day/evening and day/night nurses stated that they were not satisfied with their ability to attend

family activities. The day/evening and day/night nurses stated that they had to miss family activities often. The day/night nurses indicated that, if they did attend they inevitably left early. The majority of the permanent day nurses were satisfied with their attendance at family activities. Tasto et al (1978) also found that day workers were more satisfied with the time available for attendance at family activities than the day/evening and the day/night shiftworkers. Inability to attend family activities could affect the nurse's perception of fulfillment of the familial role.

iv) Nurses' Perceptions of Family Feelings Toward the Shift Schedule

Nurses perceptions of family feelings of the shift schedules evoked responses particular to each shift. The majority of day/evening nurses responded that their families did not like the work schedule but were used to it. The majority of the day/night nurses responded that their families hated the work hours. Whereas the permanent day nurses indicated that their families liked their work schedule. Again a study conducted by Tasto et al (1978) found families of day workers were more satisfied with their work hours than shiftworkers.

Mott (1976), Carpentier et al (1977), Wojtezak-Jaroszow (1977), and Harrington (1978) noted that male shiftworker's family relations appear to be disrupted by their work

schedule. Female nurses' perceptions of how the family feels may provide insight into why shiftwork alters family relations.

v) Role as a Parent

Fulfillment of the role as a parent is integral to the familial role concept. Approximately half of the day/evening and the day/night shiftworkers were parents. Certain trends appeared nurses with adult children did not feel their shift schedule affected their roles as parents. Day/night nurses stated that the shift schedule did effect their performance in the parent role because they were too tired to give quality time to the role. The majority of the day nurses stated their work schedule did not effect their role as a parent. Tasto et al (1978) found shiftworkers were more dissatisfied with the amount of time they had to spend with the children than were day workers; whereas the quality of time for the day/night nurses emerged as more important in the investigator's study.

4) Affiliative Role

The concept of affiliative role incorporates those activities that individuals engages in as a member for example of a society, a relationship, a friendship etc.: activities which assist an individual to feel like they belong constitute the affiliative concept. Three concepts emerged as areas of concern which were found in the affiliative concept.

### i) Friendships with Other Shiftworkers

Forming and maintaining friends is an essential component of an affiliative role. Forming and maintaining relationships emerged as an area of concern. The entire subject population in all three shift schedules revealed friendships with shift workers created a problem. A main theme emerged regarding the amount of time which is needed to coordinate time off together, and to engage in social activities. Harrington's (1978) review of the literature concluded that shift workers appear to have greater difficulty making new friends and tend to have fewer friends than day workers. Tasto et al (1978) found day workers had more friends that worked the same schedule as they as compared to shiftworker friends. The investigator's findings that forming and maintaining shiftwork friends is difficult due to the time needed to coordinate time together may shed some insight into the findings of Harrington (1978) and Tasto et al (1978).

### ii) Time to Communicate

Time to communicate is an essential component in the performance of the affiliative role. The majority of the day/evening and the day/night nurses expressed the fact that they were not satisfied with the amount of time to communicate. The main theme for the day/evening shift was that working evenings limits the time to talk with friends. The day/night nurses felt that they were dependent on the

telephone to talk with friends and family. The majority of the permanent day workers were satisfied with the amount of time they had to communicate. A review of the literature did not discover studies relating to the effects of shift schedules on time to communicate.

### iii) Spouse/Mate Role

Fulfillment of the spouse/mate relationship illustrates the affiliative concept. All the nurses employed in the day/evening and day/night shifts expressed their shift schedule affected their role as a spouse/mate. Time to be with the spouse emerged as an area of concern for the day/evening nurses. Lack of energy to give to the spouse/mate role emerged as an area of concern for the day/night staff. The permanent day nurses responded that their work schedule did not affect the spouse/mate role.

Tasto et al (1978) noted that rotating shift workers reported more complaints from spouses than did permanent day nurses. Wojtezak-Jaroszowa (1977) found that the evening shift disrupts the worker's role as a husband. Quality of time to give to a spouse role for the day/night workers has not been reported.

### iv) Dating Relationships

Establishing and maintaining dating relationships is an important aspect in the affiliative concept. The day/night nurses who were single expressed the frustration of trying

to form and maintain dating relationships. Lack of energy and lack of available time are cited as the two main areas of difficulty in a dating relationship. Nurses in the day/evening and permanent day shifts did not indicate that maintaining dating relationships was difficult due to their shift schedule. The effects of shift schedules on dating relationships have not been reported in the literature.

#### 5) Communal Role

The concept of communal roles embrace those social activities that a person fulfills which are critical for integration into a community and society as a whole. The category "female nurses perceptions of the effects of shift schedules on attendance at social activities reflect an aspect of the communal role concept.

The day/night nurses (100%) stated overwhelmingly that they were not satisfied with the amount of time they had to attend social activities. Fifty percent of the day/evening shift workers were also dissatisfied. Surprisingly 50% of the day/evening nurses stated that they were satisfied with the amount of time they had to attend social activities because their unit director was so flexible. The finding suggests that flexible nursing administrators enhance an atmosphere conducive to positive attitudes toward the work schedule. Day workers (100%) were satisfied with the amount of time to attend social activities. Tasto et al (1978) found day workers were more satisfied with the time they had available for social activities than shiftworkers.

### G) Intrapersonal System

Attributes that form the intrapersonal system can be considered building blocks to an individual's self-concept, philosophy, and total concept of meaning and being. Interactions occur with the personal self. One category emerged which reflects a subconcept of the intrapersonal system.

#### 1) Ego-control concept

The concept of ego-control incorporates those attributes which form an individual's emotional and coping patterns such as reaction to stress. Female nurses' perceptions of the effects of shift schedules on their own emotional reactions illustrate this category.

The majority of both the day/evening and day/night nurses stated that shiftwork altered their emotional reactions to stress. Areas of concern such as increased temper, irritability, lack of energy and inability to cope were expressed. The permanent day workers (100%) responded that their work schedule did not effect their emotional reactions. A review of the literature did not locate research exploring the effects of shift schedules on emotional reactions.

The following tables illustrate the percentage of responses which indicate that shift schedules have a negative effect on the nurses' interactional subsystem and the intrapersonal subsystem.

Percentage of Responses which Indicate Shift Schedules have a Negative Effect on the Nurses' Interactional Subsystem Roles

	Day/evening	Day/night	Days
sexual activities	100%	89%	0%
seven shifts in a row	100%	100%	100%
attendance at professional activities	90%	80%	20%
shift schedule dissatisfaction	90%	100%	10%
time to discuss family concerns	70%	20%	0%
time to relax with family	70%	70%	0%
attendance at special family activities	90%	100%	20%
family feelings about work schedule	60%	100%	0%
parent role	25%	60%	29%
spouse/mate role	100%	100%	0%
time to communicate with friends & relatives	60%	90%	0%
friendships with other shift workers	100%	100%	100%
attendance at social activities	50%	100%	0%

Percentage of Responses which Indicate that Shift Schedules  
have a Negative Effect on the Nurses' Intrapersonal System

	Day/evening	Day/night	Days
emotional reactions	90%	90%	0%

Percentage of Responses which Indicate Shift Schedules  
Have a Negative Effect on the Nurses' Interactional  
Subsystems of Space and Patterns

	Day/evening	Day/night	Days
personal time for self	60%	80%	60%
rearranging family schedule	70%	50%	0%

### Summary

The adaptation of the conceptual framework provided an excellent guide in organizing and connecting themes in the data. The incorporation of Riehl and Chrisman's (1974) conceptualization of the interpersonal, intrapersonal, and biological systems to the multiple epidemiological model provided the depth needed to connect and organize the data. The potential for the use of the framework could be expanded to guide research in exploring other areas of influence of perception on shift schedule effects. The framework could also be utilized to explore positive and negative adaptation patterns of shiftworkers.

The qualitative design permitted the analysis of rich descriptions by the participants. The qualitative design permitted new areas of concern to emerge, such as the importance of the quality of time versus quantity of time for the day/night nurses. Previous quantitative studies noted dissatisfaction with quantity of time; whereas, this qualitative study noted that day/night nurses were dissatisfied with the quality of time they had to relax with family to give to a spouse/mate. Quality of time was voiced as a more important consideration than quantity of time. Emotional reactions emerged as another area that formed a major concern. The effect of working seven shifts in a row could be addressed because of the qualitative design. The effects of working seven shifts in a row may be unique to

the nursing profession, which may explain the lack of research conducted on an obviously major concern for the female nurses.

The majority of the findings were consistent with existing literature on studies conducted on male and female shiftworkers. Time, energy, and quality of time appear to be central themes that were reflected in the data. Flexible unit directors appear to create an atmosphere conducive to positive attitudes toward shift schedules.

These findings present a challenge to the nursing community as a whole; staff nurses, educators, administrators, clinical specialists, professional organizations, and nursing unions must address the problems of not only the physical effects but also the psycho-social effects of shiftwork. Nursing is plagued by shift dissatisfaction which may contribute to job stress and high staff turnover.

### Limitations

There are inherent limitations of the exploratory survey design of this study. First the data that was collected by the interview can not infer a cause and effect relationship. Second the data generated will not be able to be generalized to the whole population. Exploratory research lacks the experimental controls necessary for causal inferences to the

general population. The research design utilized comparison groups to strengthen the study, to allow similarities and differences to be noted. Exploratory, descriptive research is directly oriented toward the discovery of relationships by seeking a richer understanding through survey research. Another limitation was noted during the data collection. The setting of the interview appeared to alter the richness of the data collected. Subjects interviewed at home were more vocal and provided more descriptive data than subjects interviewed at work. Six respondents were interviewed at work. Control of the interview setting would eliminate this limitation.

#### Implications

The profession of nursing has to address the issue of shift work effects rigorously. Problems inherent in shift scheduling must be understood and accepted in order to facilitate shift schedule satisfaction.

Various implications for the nursing profession can be addressed as a result of this study. The following implications are suggestions which the nursing profession could possibly implement to decrease the negative effects of shiftwork.

1. The nurses' indicated that working seven shifts in a row was a major concern, therefore, nursing

administrators, professional organizations, and unions should be encouraged to promote research on the physical and emotional effects of this practice. Nursing administrators could facilitate this type of research by allowing nurse researchers access to the health care institutions. Professional organizations such as the M.A.R.N. and nursing unions such as M.O.N.A. could encourage research on the effects of working seven shifts in a row by providing researchers access to the nursing members.

2. Unit directors and continuing educational personnel must be made aware of the effects of shiftwork on lifestyle patterns in order to provide accurate information to staff on the possible effects of shift work and the various patterns of coping skills that could be utilized.
3. The study illustrates female nurses' perceptions of the negative effects of shiftwork on lifestyle patterns. Unit directors should be encouraged to assist staff nurses to assess their home and work situation realistically in order to provide guidance when the nurses are seeking shift schedule options.
4. Female nurses' concerns about the free time, energy, and quality of time were central themes reflected in the data. Collectively, professional nursing organizations, unions, and administrators should be encouraged to investigate the feasibility of

providing workshops. The workshops should be designed to promote effective management of the nurses' physical and emotional energy, effective use of time, and quality of time.

5. The study notes the female nurses' perceptions of how their families are affected by their shift schedule. Unit directors could encourage staff nurses to assess their home and work situation realistically in order to facilitate informed decisions when seeking shift schedule options.
6. Because the majority of nurses interviewed perceived that shiftwork affected their role as spouses, workshops could be designed for both the nurse and the spouse. The workshops should increase the participants knowledge of shiftwork affects and promote methods of family coping.
7. Female nurses employed in the day/evening shift who were satisfied with the time available to attend social activities indicated that their flexible unit director was responsible for this satisfaction. Unit directors, assisted by hospital administrators could be encouraged to foster a flexible atmosphere to accommodate shift changes by staff for special social activities.
8. Comments expressed by the day/night female nurses suggests that there is a great deal of dissatisfaction at not being able to attend

continuing education classes. Continuing education personnel should therefore investigate methods of facilitating attendance at classes by the day/night nurses. Another suggestion is that continuing education personnel increase the use of audiovisual aids so that day/night nurses could view the classes while working the night shift.

9. Comments expressed by both the day/night and day/evening shiftworkers suggest dissatisfaction with not being able to attend activities sponsored by their professional organization. Members of professional organizations should investigate methods of facilitating attendance at professional meetings and lectures by shiftworkers.
10. Nursing educators should teach nursing students about the physical and psycho-social affects of shiftwork. New nursing graduates would then have a better understanding of the affects before they were experienced.
11. Existing shift schedule dissatisfaction should be evaluated by staff nurses, unit directors, and nursing administrators. If shift schedule dissatisfaction exists, new approaches to shift scheduling should be addressed. For example, the staff nurses could form and assess new schedules on a trial basis.

12. Quality of care was mentioned as being a concern of some of the nurses working seven shifts in a row. Nursing administrators should encourage research to investigate the level and quality of care provided by nurses who work seven shifts in a row.

#### Recommendations for Future Research

1. Future hypothesis generating studies utilizing quantitative designs should be encouraged to provide support for the data base this exploratory study has reported.
2. Female nurses in the study expressed concerns about working seven shifts in a row. Descriptive research should be designed to further investigate the physical and emotional effects of working seven shifts in a row.
3. The nurses responses indicated that quality of care was less when they worked seven shifts in a row. Research should be promoted to explore the relationship between quality of care and working seven shifts in a row.
4. The literature review noted quantitative studies on the day/night shiftworkers' dissatisfaction with the amount of time available to relax with family; whereas, this study noted that day/night nurses were more concerned with the quality of time rather than

the quantity of time. This finding indicates qualitative research should be conducted where the quantitative research has already been performed to explore the areas further. Exploratory qualitative research may add further dimensions to the identified effects.

5. Female nurses' perceived that the family was affected by the nurses' shift schedules. Research should be promoted to explore the families perceptions of the nurses' shift schedules.
6. The conceptual framework for this study illustrates that it is possible to adapt to shiftwork negatively or positively. Research could further investigate the reasons adaptation and maladaptation to shiftwork occurs.
7. The study noted that single nurses with adult children did not perceive their shift schedule as affecting their roles as parents; whereas, nurses, both married and single, perceived shiftwork as affecting their role as a parent. Variables such as marital status, age, and length of time working shift may affect the nurse's perceptions. Research should be conducted to investigate these variables and their influence on shift schedule satisfaction.
8. The study notes that female nurses' perceive negative effects of shiftwork on their lifestyle patterns. Nursing is plagued with a high attrition rate. The

question arises whether or not there is a relationship between shift schedule dissatisfaction and the high attrition rate. Research to explore the question should be encouraged.

9. The study notes day/night nurses perceive quality of time to be more important to them than quantity of time. To the author's knowledge the literature documents quantitative studies on quantity of time but not quality of time. The majority of reported studies focus on male perception. Quality of time not documented as an issue for males? Is quality of time an issue for male day/night workers? A qualitative study exploring male perceptions of the importance of quality of time would address the above question. A quantitative comparative study could describe male and female perceptions of the importance of quality of time.

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Appendix A  
LETTER OF ACCESS

Winnipeg, Manitoba

R

November 22, 1985.

Ms. B. Right  
Director of Nursing  
Victoria General Hospital  
2340 Pembina Highway  
Winnipeg, Manitoba

Dear Ms. Wright

Re: Request for Access to Hospital for Data Collection

I am writing to request permission to collect data in the Victoria General Hospital for my thesis in the Master of Nursing program. Enclosed is a brief description of my proposal that will be submitted to the University of

Manitoba's School of Nursing ethical review committee before data collection begins. I will, of course, be pleased to provide you with any additional information you may require or to meet with you at your convenience. Thank you for your consideration.

Sincerely,

J. A. Hockney  
Graduate Student

Encl. cc: L. Scruby

The purpose of this study is to explore the question: "How do female nurses perceive the effect of their shift schedule on their lifestyle patterns?" At present the research literature on the social problems that the shiftworkers experience is scant and subjective. Very few of the studies on lifestyle description have undertaken a systematic analysis of the factors involved. Few studies have examined the effects experienced by female shiftworkers.

The study is qualitative in design and explorative in nature. The explorative nature of the study is necessary in order to generate data that will provide empirical grounding for future research. One of the purposes of qualitative research is to understand phenomena and factors underlying a certain sector of the population. The convenience sampling technique is the method used to describe the method of seeking out subjects who have a specialized knowledge of the particular area under study. A convenience sample of 10 female nurses who are employed in straight day shift, 10 female nurses employed in rotating day/evening shift, and 10 female nurses employed in day/night shift will be interviewed. An open-ended interview (see Appendix interview (see Appendix I) will be administered to the nurses.

The collection of data will contribute to existing knowledge in the discipline of nursing. Job satisfaction, stress, and high attrition rates continue to plague nursing

and the delivery of health care. The factors that may create job dissatisfaction, stress, and high attrition merit attention because of their consequences in terms of quality of care and resulting economic costs. Knowledge of female nurses' perceptions of the effects of shift schedules on their lifestyle patterns may contribute to understanding influences on job satisfaction, stress, and attrition.

Appendix B

REQUEST FOR PARTICIPANTS

Dear Colleague,

I urgently need at least 30 R.N.'s & R.P.N.'s who work full time to participate in a research study on shift schedule effects on lifestyle patterns. I require 10 R.N.'s who work a straight day shift, 10 who work day/evening, and 10 who work day/night. The study will be conducted by myself, Judith A. Hockney, a Master's student in nursing at the University of Manitoba. From this study I hope to learn more about female perceptions of the effects of shift schedules on lifestyle patterns. The study is being supervised by Lynn Scruby, Assistant Professor at the University of Manitoba, School of Nursing. She can be reached at 474-9317.

If you decide to participate in this study, I would like to ask you sixteen brief and general questions about your perceptions of the effects of your shift schedule on your lifestyle patterns. I will be using a tape recorder to ensure the accuracy of the information that is gathered. The tape will not be able to be identified with you and the tape will be erased once it has been transcribed. The general

questions will take approximately forty-five to sixty minutes of your time.

The information you provide will be strictly confidential. The written report of this study will in no way identify names with the text. Your decision to participate in this study is strictly voluntary, and you may withdraw at any time. Your decision to participate will be confidential and at no time will the administration of the Victoria General Hospital have access to information on who has or has not participated, or to any other data of the study. You may also refuse to answer any of the interview questions during the interview. Please leave your name and phone number on the paper provided in the envelope below if you wish more information, or if you wish to participate. I will be at the hospital on Jan.24,1986 to pick up the envelopes and I will contact you by phone the following week. Please do not hesitate to contact me if there are any questions. Thank you for your consideration.

## Appendix C

### WRITTEN EXPLANATION OF STUDY FOR PARTICIPANTS

The purpose of the study is to explore the question: "How do female nurses perceive the effect of their shift schedule on their lifestyle patterns?" At present the research literature on the social problems that the shiftworker experiences is scant and subjective. Very few of the studies on lifestyle disruption have undertaken a systematic analysis of the factors involved. Few studies have examined the effects experienced by female shiftworkers.

I would like to ask you sixteen brief and general questions about your perception of the effects of your shift schedule on your lifestyle patterns. I will be using a tape recorder to ensure the accuracy of the information that is gathered. The tape will not be able to be identified with you and the tape will be erased once it has been transcribed. The general questions will take approximately forty-five to sixty minutes of your time.

The information you provide will be strictly confidential. The written report of this study will in no way identify names with the text. Your decision to participate in this study will be strictly voluntary and you

may withdraw from the study at any time. You may also refuse to answer any of the questions during the interview.

The data collected in the interview will contribute to existing knowledge in the discipline of nursing. Job dissatisfaction, stress, and high attrition rates continue to plague nursing and the delivery of health care. The factors that may create job dissatisfaction, stress, and high attrition merit attention because of their consequences in terms of quality of care compromises and resulting economic costs. Knowledge of female nurses perceptions of how their shift schedule affects their lifestyle patterns may contribute to understanding influences on job satisfaction, stress, and attrition.

Appendix D  
CONSENT FORM

The consent form is to certify that I, \_\_\_\_\_ (print name in full), agree to participate in a study of female perception of shift schedule effects on lifestyle patterns which is being conducted by Judith Hockney. I have been told that Judith Hockney is a graduate student in the Master's of Nursing program at the University of Manitoba. I have received a written and verbal explanation of the study and understand that the interview will be tape recorded.

I have had the opportunity to ask questions and have received satisfactory answers. I understand I may ask Judith Hockney further questions should they arise, at any time. I understand that my decision to participate is voluntary and that I have the option to withdraw at any time. I understand that I may refuse to answer any question and that such a decision will not be held against me in any way and that I will not be pressured to comply in any way.

My signature indicates that I am informed and that I agree to participate as a volunteer respondent. I understand that I may receive a copy of the results of this study upon request.



Appendix E  
DEMOGRAPHIC DATA

Background Information

- 1) How old were you on your last birthday? \_\_\_\_\_
- 2) What level of education do you have to practice nursing?  
R.P.N. \_\_\_\_\_ R.N. \_\_\_\_\_ B.N./B.ScN. \_\_\_\_\_ M.N./M.ScN. \_\_\_\_\_
- 3) Including yourself, how many people are living in your household?  
\_\_\_\_\_ What are their ages? \_\_\_\_\_
- 4) Check the appropriate response that indicates your marital status.  
Married \_\_\_\_\_ Divorced \_\_\_\_\_ Widowed \_\_\_\_\_  
Single \_\_\_\_\_ Single/Cohabiting \_\_\_\_\_

Job Information

- 5) How long have you worked for your present employer?  
\_\_\_\_\_ yrs./\_\_\_\_\_ mos.
- 6) Which of the following statements describes your work schedule?  
Please circle one of the following.  
I work day shift only \_\_\_\_\_ 1  
I rotate shifts: days/ evenings \_\_\_\_\_ 2

I rotate shifts: days/ nights\_\_\_\_\_3

7) How long have you worked the schedule you circled above?

\_\_\_\_\_/\_\_\_\_\_

yrs. / mos.

8) How long have you been practicing nursing? \_\_\_\_\_/\_\_\_\_\_

yrs./ mos.

## Appendix F

### INTERVIEW SCHEDULE

1. How satisfied are you with the amount of time your work schedule allows you to attend social activities such as weddings, parties, and social get togethers?
2. Does your work schedule allow you sufficient time for leisure activities such as hobbies, and shopping?
3. How satisfied are you with the amount of time your work schedule allows you to attend classes, professional meetings, or belong to organizations?
4. How does your work schedule affect your role as spouse or mate? Can you give examples? How does your schedule effect your social relationships?
5. How satisfied are you with the amount of time your work schedule allows you to be with your spouse or mate to discuss family concerns?
6. How satisfied are you with the amount of time your work schedule allows you to communicate with significant people in your life?
7. How satisfied are you with the amount of time your shift schedule allows you to spend time with your spouse (partner) relaxing together?
8. Do you have children? How many and what are their ages? How does your work affect your role as a parent? Can you give examples?

9. Does your work schedule contribute to additional stress in the family? Can you give examples?
10. Does your family rearrange its schedule to accommodate your work hours?
11. Does your work schedule affect family activities? Can you give some examples?
12. How many of your friends work the same kind of schedule as yourself?
13. Does your work schedule interfere with your sexual activities?
14. In general how do you feel about your work hours?
15. In general how does your family feel about your work hours?
16. Would you like to make any other comments?