

THE HEALTH OF NURSES: THEIR SUBJECTIVE WELL-BEING,  
LIFESTYLE/PREVENTIVE PRACTICES AND GOALS FOR HEALTH

by

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## Abstract

### THE HEALTH OF NURSES: THEIR SUBJECTIVE WELL-BEING, LIFESTYLE/PREVENTIVE PRACTICES AND GOALS FOR HEALTH

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Although promotion of health and healthy lifestyles are accepted tasks of registered nurses, the assessment of nurses' own health and health behaviours has rarely been assessed. In this study questionnaire responses from 59 female registered nurses and interviews with ten nurses employed full-time in south-west Alberta were analyzed. The questionnaire consisted of items taken and adapted from the Canada Health Survey (Health & Welfare Canada, 1981) on subjective well-being (Affect Balance Scale and Health Opinion Survey) and certain lifestyle practices (pap test, breast examination, alcohol consumption, cigarette smoking and seat belt use). A question on leisure time physical activity was taken from Godin, Jobin and Bouillon (1986). Questions assessing self-reported immune status and perception of self as a health role model for others were designed by the researcher. Data from the questionnaires were described in narrative, frequency counts and percentages. Comparisons were made among responses in various parts of the questionnaire as well as with the results of the Canada Health Survey. Interview questions designed by the researcher assessed the ways in which the nurse participants thought about health and their goals for health; transcribed interview responses were categorized

according to themes; further interpretation was done on three main themes (maintenance of health as a goal, perceived lack of nurses' self-care and nurses' expectations of themselves).

The nurses' scores on the Affect Balance Scale and the Health Opinion Survey place them toward the positive end of a positive-negative continuum of subjective well-being (Okun, Stock, Haring & Witter, 1984). Comparison of the participants' responses regarding lifestyle and preventive practices with the Canada Health Survey suggests that these nurses had relatively adequate health practices with the possible exception of participation in vigorous physical activity. A majority of the participants perceived themselves as role models of health, particularly non-smokers and those with post-RN education.

The ten interviewed nurses generally gave maintenance of health as their primary present and future goal for health. Lack of self-care was associated by participants with nurses' and women's traditional concern for others before themselves. The participants seemed to have generally high expectations for themselves and other nurses.

This descriptive and exploratory study may provide a baseline for future study of nurses' health, an indication of areas for health promotion programs for nurses and a discussion point for nurses to continue to assess their own health and the factors affecting their own health and goals for health.

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## Chapter I

### Introduction

The concern for health is not new; however, there is an increasing interest in Canada in health promotion, prevention of disease, physical fitness and wellness. Description of the health of populations has progressed from simply providing statistics on the principal causes of morbidity and mortality to including risk factors which affect present health and factors which may promote health or wellness in the future (Faber & Reinhardt, 1982). Smoking, exercise, and use of alcohol have been considered as personal lifestyle behaviours affecting present health, as well as being considered as targets of health promotion programs (Faber & Reinhardt, 1982; Lalonde, 1974). Since the Lalonde Report (Lalonde, 1974) health promotion has advanced to include not only the individual's responsibility for health or self-care, but also "the mutual aid (actions people take to help each other cope), and healthy environments (the creation of conditions and surroundings conducive to health)" (Epp, 1986).

Wellness has been suggested as a term which describes an active positive process through which individuals become

aware of and make choices toward a healthy lifestyle (Hettler, 1982) within the social context. Nurses particularly may focus on wellness rather than on disease (Burns, 1985; Faber, 1985) in describing the health of clients for nursing diagnosis and nursing treatment (Shaver, 1986).

The Alberta Association of Registered Nurses (AARN, 1985a) has suggested that nurses, along with other health professionals, believe that clients have a responsibility to participate in promotion of health and in health care. Registered nurses in providing information and support for clients have an important role in client education; the process of client education (AARN, 1985a) includes the integration of the teaching/learning process with the nursing process and involves assessment, planning, implementation, evaluation and documentation. Nurses are considered by the AARN as "personally responsible and accountable for acquiring knowledge and skill(s) related to client education" (AARN, 1985a, p. 2). Although nurses are considered as conveyors of health information and possibly as models of health practices (Hovey & Tombre, 1986; Staff, 1986), little is known about the health of nurses, except for some health-related behaviours such as smoking and breast self-examination (Hovey & Tombre, 1986). The purpose of this study is to discover and describe the health of a

group of registered nurses and their future goals for health.

### Rationale

This study arises from a concern for the health of nurses and nurses' growing participation in health promotion (AARN, 1985b) which may be considered the primary focus of nursing (AARN, 1979). As the medical model of diagnosis, treatment and cure is being challenged by a focus on health and wellness with a concern for the whole person (Ferguson, 1986) health promotion programs related to nutrition, physical fitness, smoking and use of seat belts have expanded the health care domain (AARN, 1980). Every nurse's responsibilities include promotion of health and wellness (Coutts & Hardy, 1985), yet there is a lack of emphasis on health promotion in the curricula of Canadian faculties of Medicine and Nursing (Moonie, 1986).

The philosophy of Canadian health professionals in promoting health has been "to help others help themselves" (Moonie, 1986). Wellness like health necessitates personal participation (AARN, 1985b).

Wellness assessment represents a holistic model of health that is predicated on self knowledge and self imposed regimen as part-and-parcel of a self managed lifestyle (Shuffield & Dana, 1984, p. 3).

The emphasis in nursing on client self-care and personal responsibility of the client in decision making suggests

that the role of the nurse is to collaborate with clients and health care professionals in the process of client education (AARN, 1980). Clients are considered as having ultimate responsibility for their "own well-being within the social context which includes many variables" (AARN, 1985a).

Health refers to the ability of human beings to be self-directed in adjusting and maintaining their unique integrity as they experience life events in relation to their environment (AARN, 1980).

Individual nurses can be considered personally responsible for their own health in this same context. The professional nurse as a self-directed learner (AARN, 1984) shares responsibilities with the employer, educational provider and professional association to maintain competence in nursing practice, and to maintain and improve the quality of health care.

#### Background to the Study

Reading of Paulo Freire's (1970, 1976, 1985) and Carl Rogers' (1983) works led to a personal position which stimulated this research and to an assumption underlying this study. The assumption is that the goal of health education is to:

free people so that they may make health-related decisions based upon their needs and interests as long as those needs and interests do not adversely affect others (Greenberg, cited in Walker & Bibeau, 1985-86, p. 4).

Health education as freeing, according to Walker and Bibeau (1985-6), involves the development of the individual's critical thinking and self-directed learning.

Nursing as a discipline has adopted a basic problem-solving approach which involves the process of critical reflective thinking (Farmer, 1986).

Critical thinking involves the ability to recognize the existence of problems and acceptance of the need to suspend judgment until evidence has been gathered to confirm the presence and exact nature of the problem (Farmer, 1986, p. 9).

Underlying this study was the assumption that nurses may want to think reflectively about the possibility that a nurse's personal health or wellness will directly and indirectly affect the health of clients, health education of clients and the quality of nursing care. As nurses may be expected to exemplify good health practices and a high level of wellness, nurses may be teaching health not only in formal teaching/learning situations but also in their activities of everyday life.

#### Purpose and Questions

The purpose of this study was to assess and describe information gathered through questionnaires and interviews on the health of nurses and their goals for health. This study attempted to answer the following questions:

1. What is the health of a group of registered nurses as measured by questionnaires on subjective well-being and self-reported health status?

2. How does the health of a group of registered nurses compare with the health of other Canadians as measured by the Canada Health Survey (Health & Welfare Canada, 1981)?

3. What are the relationships among components of health as assessed by questionnaire responses?

4. To what extent do nurses perceive themselves as role models of health for others? Does perception of self as a health role model relate to nurses' health, health behaviours or health goals?

5. What are the personal goals for health of the participants?

6. What is the relationship between participants' perceived health as obtained by questionnaires and personal goals for health as obtained by interview?

#### Delimitations and Limitations

This study was delimited to the assessment and description of the health of 59 registered nurses employed full-time in south-west Alberta; they were all members of the Alberta Association of Registered Nurses. The aspects of health considered in the study were subjective well-being and self-reported health status. The latter comprised:

specific lifestyle practices (use of alcohol and tobacco, seat belt use, leisure time physical activity), female preventive behaviour (pap smear test and breast examination), and self-reported immunity level (diphtheria, tetanus, polio, rubella, tuberculosis and Hepatitis B). Many other aspects of health were not dealt with in this study, such as: nutrition, stress, socio-economic status and spiritual factors.



## Chapter II

### Review of Literature

#### Definitions of Health

The word "health" has historically referred to soundness of the physical body (Fowler & Fowler, 1960) where all the parts and organs are in proper condition (Thatcher, 1980). Health defined by the World Health Organization (W.H.O., 1957) is a state of physical, mental and social well-being and not merely the absence of disease or infirmity. A fourth dimension has been suggested as spiritual health (Coutts & Hardy, 1985). Health can be a general condition without description or analysis of the component parts; for example, one might be acutely ill or feeling well. On the other hand, health may consist of a combination of specific characteristics which when taken together describe the health of the person at a specific time (Orem, 1980; Peron & Strohenger, 1985). Wellness as a term suggesting multiple causes and effects involves "a subjective global appraisal as well as a set of comparisons with normative data" (Shuffield & Dana, 1984, p. 3); wellness which includes promotion of health and prevention of disease is more

cost-effective than care or cure. Wellness has a sense of vigour, strength and wholeness that is characterized by progressive integrated development (Orem, 1980) of intellectual, emotional, physical, social, occupational and spiritual characteristics (Hettler, 1982).

High-level wellness for the individual is defined as an integrated method of functioning which is oriented toward maximizing the potential of which the individual is capable. It requires that the individual maintain a continuum of balance and purposeful directions within the environment where he [sic] is functioning (Dunn, cited in Braden & Herban, 1976, p. 39).

Wellness then becomes an interaction with the environment, a dynamic process, and an opportunity to grow, develop or actualize personal potential (Braden & Herban, 1976; Peron & Strohmenger, 1985). The concept of wellness seems to fit with the Alberta Association of Registered Nurses' statement of belief (AARN, 1980) that "people are bio-psycho-social-spiritual beings in constant interaction with their environment" (p. 5). As the concept of wellness is complex and may be difficult to assess, specific indicators of health are frequently chosen to include the concepts of well-being and ability to perform functions or adaptations (Peron & Strohmenger, 1985). In this study health or wellness was considered as including subjective well-being and self-reported health status.

Measuring Well-being and Health Status

Assessing the health of a group poses the question as to which aspects of health will be assessed. The Canada Health Survey (Health & Welfare Canada, 1981) was the first Canadian survey to publish information on complex and multidimensional aspects of health of a "representative, non-volunteer sample of the non-institutionalized population" (p. 12). Similar instruments and procedures were used in the Ottawa-Carleton Health Survey (Health Care Research Unit, 1979) to obtain information on the health of the local population. The Edmonton Board of Health (Macdonald & Kurji, 1986) has recently completed a survey of the health of Edmontonians related to alcohol, tobacco and drug use, high blood pressure, nutrition, safety, exercise, certain preventive practices and happiness. All three of these surveys tried to go beyond identifying particular diseases to identify other measurements of health and to provide a comprehensive approach to health or wellness.

The Canada Health Survey (CHS) (Health & Welfare Canada, 1981) suggested that the positive and negative facets of health could be determined by questions on well-being and lifestyle practices associated with alcohol use, tobacco use, physical activities and seat belt use. Physical measurements were taken of physical fitness and blood components (such as lead, cholesterol and antibody levels).

The subjective well-being or emotional dimension of health was defined as consisting of positive and negative aspects and was operationalized with the Affect Balance Scale and Health Opinion Survey.

The positive side...is revealed through positive affect--good feelings--about oneself, the world and one's place in it. The negative aspect is revealed...by evidence of mild affective disorders, that is, anxiety and depression (Health & Welfare Canada, 1981, p. 129).

The Affect Balance Scale developed from Bradburn (1969) consisted of five positively-worded and five negatively-worded descriptions of feelings; answers were totalled to give two separate scores: positive and negative affect which were combined in a single index, the Affect Balance Scale (ABS) "indicating whether positive or negative feelings predominated or were approximately balanced for the individual" (Health & Welfare Canada, 1981, p. 129). The CHS version was pretested in 1976 and 1977 (Stephens, undated), then used in the CHS published in 1981 and the Ottawa-Carleton survey published in 1979 (Health Care Research Unit). From an extensive review of 81 empirical studies of subjective well-being and health status, Zautra and Hempel (1984) suggest that subjective well-being has been operationalized as life satisfaction, morale and happiness according to the measurement tools used by the researchers. These researchers suggest that the studies using Bradburn affect scales tap "both higher negative

affect and lower positive affect for respondents who report their health is poor" (Zautra & Hempel, 1984, p. 99). The Canada Health Survey also used a survey of personal opinion of health developed from Macmillan; sixteen questions recorded the frequency of psycho-physical symptoms of anxiety and depression.

Lapierre (1984) used data from the Canada Health Survey to provide a profile of the health of Canadian women indicated by lifestyle habits related to: alcohol and drug consumption, levels of smoking and physical activity, immunity against rubella and frequency of breast examination and pap smear test.

The survey of the health status in the Ottawa-Carleton area (Health Care Research Unit, 1979) included lifestyle behaviour (physical activity, use of alcohol, tobacco and seat belts); female preventive health behaviour (pap test and breast examination); self-reported health (health problems, family history of breast cancer and heart disease, hearing and vision problems, activity limitation due to accidents); immunizations (red measles, German measles, polio, diphtheria, and tetanus); health professional accessibility and utilization (physician, dentist, nurse and others) and hospital stay.

In 1984, a survey of the health status of Edmontonians (Macdonald & Kurji, 1986) was initiated by the Health Promotion Directorate of Health and Welfare Canada

concerning: "alcohol, tobacco and drug use, high blood pressure, nutrition, safety, exercise, and preventive practices" (p. 1). Also included in the data were scores on degrees of happiness, perception of personal stress, training in first aid and cardiopulmonary resuscitation, and health habits in the workplace.

Peron and Strohmenger (1985) give examples of controllable factors related to the development of health problems: "high cholesterol levels, high blood pressure, industrial and urban pollution, alcoholism, smoking, obesity, sedentary lifestyles and refusal to wear seat belts" (p. 136).

Narrative literature review (Zautra & Hempel, 1984), meta-analysis (Okun, Stock, Haring & Witter, 1984) and replicated secondary data analysis (George & Landerman, 1984) have demonstrated a positive correlation between indices of health (particularly when self-report techniques are used) and subjective well-being. Zautra and Hempel (1984) suggest this may be a direct relationship or an indirect relationship through lifestyle behaviours. Aspects of lifestyle behaviours which will be considered in this study include the following: physical activity, seat belt use, immunity, alcohol and tobacco use, pap test and breast examination and self-reported immunity. One aspect of lifestyle behaviour studied extensively is physical activity.

Relationships among Subjective Well-being, Physical Health  
and Physical Activity

The results of the Canada Health Survey (Health and Welfare Canada, 1981) suggest that physical health, subjective well-being and physical activity are closely related:

Compared to sedentary people, the active ones have better physical fitness rating and lowered blood pressure, and report more positive psychological well-being (Health & Welfare Canada, 1981, p. 18).

The psychological effects of exercise have been explored in several theories that indicate that exercise has the following influences: increases feelings of competency through self-discipline in an exercise program; increases self-esteem by valuing one's body enough to exercise; increases physical attractiveness by loss of weight and toning of muscles; improves mood through anticipation of feeling better (placebo effect), and relieves daily routine by "running away" from problems (Berger, 1982). Other theories involve physiological mechanisms relating exercise to mood enhancement.

Studies of children, adolescents, individuals over age sixty and women have shown improved self-confidence after an exercise program (Parent and Whall, 1984; Taylor, Sallis & Needle, 1985). In Stacey, Kozma and Stones' study (1985) of a seniors' fitness group, new members showed significant increases in simple cognitive function and in their level of

happiness; older members' happiness ratings did not change significantly. When Bennett, Carmack and Gardner (1982) controlled for the variable of social interaction in a seniors' fitness program, individuals with high depression scores on a pre-test had significant decreases in depression scores on a post-test after a physical fitness program; subjects with low depression scores had no significant differences on the post-test. As there was no rating of the physical activity of the subjects before this study, it could be suggested that the activity may have had a preventive effect against depression for those individuals who were previously active.

The influence of physical activity in the treatment of various illnesses has been explored in research studies. Individuals with reactive depression who were randomly assigned to group counselling or running with the researcher (Fetsch & Sprinkle, 1983) had significant decreases in depression scores when running with a counsellor and receiving counselling therapy compared with a counselling-only group. Rueter (1980) studied eighteen college students who sought treatment for depression; half the group acted as control and received counselling therapy; the other half received counselling and ran with a counsellor three times weekly for ten weeks. The group who ran showed greater decreases than the counselling-only group in depression scores as measured by the Beck Depression



Inventory. In myocardial infarction patients, the majority of studies have not shown exercise to be more effective for reducing depression than other interventions or control (Taylor, Sallis, & Needle, 1985).

Taylor, Sallis, and Needle's review of the literature (1985) implies that although the antidepressant effects of exercise are widely accepted in clinical depression, only a few studies have shown a direct relationship of exercise with the relief of depression and only two studies were controlled. Few studies relating exercise and mood enhancement with non-clinical populations have been controlled; most have been short-term and involved small samples; and few have explored direct effects rather than descriptive relationships. Of the six studies of non-clinical populations assessed by Taylor et al. (1985), two reported decreased depressed mood or improved mood; three showed no overall effect; and one found that women but not men had improved mood states with physical exercise. In Berger's review of literature (1982) relating exercise and mood alteration, she concludes that jogging enhances psychological well-being, reduces anxiety and depression in patients and the general population. She also reports one study of college students enrolled in swimming classes who experienced reduced anxiety, depression, anger, and confusion.

The suggested negative psychological effects of physical exercise have been studied primarily in relationship to running addiction according to Taylor, Sallis and Needle (1985). Negative effects have been proposed such as: compulsiveness, decreased involvement in social relationships, overcompetitiveness, self-centredness and pre-occupation with fitness.

Physical changes associated with physical activity are: decreased chance of heart attack, lowering of blood fat levels, more efficient use of oxygen by muscles, strengthening of muscles and possibly increased longevity (Kavanagh, 1975).

#### Seat Belts

The Alberta Association of Registered Nurses (AARN, 1986) has recently approved a position paper supporting mandatory seat belt legislation. The association recommended that members use seat belts, educate clients to use seat belts and lobby members of the provincial legislature to support seat belt legislation as "nurses have a responsibility to support social and political action in favour of mandatory legislation" (AARN, 1986, p. 9); this position statement was taken in order to reduce the rate of injury and death in traffic accidents. The Alberta Public Health Association (APHA, 1986) also favours seat belt legislation. In 1981, the Canada Health Survey (Health &

Welfare Canada, 1981) stated that 60% of the population wore seat belts in the four provinces (Quebec, Ontario, Saskatchewan and British Columbia) that had seat belt legislation; whereas, sixteen percent of the population wore seat belts in areas lacking seat belt legislation. Prince Edward Island, the Yukon, the Northwest Territories and Alberta are presently the only jurisdictions without such laws and "motorists do not use seat belts to any substantial degree in the absence of seat belt laws" [underlined in original text] (APHA, 1986, p. 1).

Richman's 1986 summary of the effects of compulsory seat belt legislation in Nova Scotia reported that "hospitalizations for serious motor vehicle accidents substantially reduced before the enactment and enforcement of compulsory seat belt legislation; this reduction may possibly illustrate a change in community attitudes and behaviour which preceded seat belt legislation" [emphasis in original text] (p. 1). On the other hand, an increase in fatalities of pedestrians, motorcyclists and bicyclists in 1985 in Nova Scotia is suggested by Richman as possible evidence that drivers may actually increase risk-taking behaviour when use of seat belts increases a feeling of individual security. Adams (cited in Sewell, 1986) has proposed that safety regulations such as seat belt legislation may only temporarily reduce accidents until

individuals adjust to previous risk-taking levels and accident rates return to previous levels.

### Immunity

In order to assess the immunity of the general population of Canada, the Canada Health Survey (CHS) performed antibody testing related to rubella (German measles), types of poliomyelitis, diphtheria, tetanus, red measles and mumps. Lavasseur (1983, cited in Lapierre, 1984, p. 17) found that there was a serious lack of immunization against polio and rubella (the latter with the potential of causing serious birth defects). The age group 35-44 years in the CHS had the fewest number protected with 45% of this age group showing susceptibility to a type of polio. In the Ottawa-Carleton Survey (Health Care Research Unit, 1979) one-third of the age group 20-34 and less than 40% of the group 35 years and older were adequately protected from polio.

The CHS reported that 17% of the population in the Prairie provinces had low rubella titres or possible susceptibility to rubella. Less than forty percent of the females aged 20-34 and about twenty percent of the females over 35 had immunity against rubella in the Ottawa-Carleton region. Lack of immunity may pose a threat to the health of nurses who may be exposed to communicable diseases. Females

in their child-bearing years should know their immune status in relationship to rubella particularly.

#### Pap Smear Test

There is some conflict over the recommended interval between pap smear tests for women; the Steve Fonyo Cancer Prevention Program (Birdsell, McGregor & Hill, 1986) makes the following recommendations:

We recommend that women aged 18-35 who are sexually active have a Pap smear annually. Women age 35-60 should have Pap smears every five years unless they are high risk or have a history of abnormal smears (p. 5).

The Canada Health Survey (Health & Welfare Canada, 1981) stressed the importance of cervical cancer screening programs for older women; recommendations of a test on an annual basis is implied for women over age 45.

#### Breast Self-examination

The Steve Fonyo Cancer Prevention Program in Alberta (Birdsell, McGregor & Hill, 1986) recommends that breast self-examination be practiced by all women monthly and that women over forty have a yearly breast examination by a physician; (nurses may also know how to do this procedure). The recommendation regarding breast self-examination is made by this program on the basis that there may be some potential benefits and carries little risk, "although definitive evidence about breast

self-examination is lacking" (Birdsell et al., 1986, p. 15).

#### Alcohol Consumption

Historically alcohol has been considered a source of enjoyment, a cure for illness such as colds, a way of escaping reality (Chafetz, 1965), an alternative to polluted water, a tool for the divine, and a factor in crime and suffering (Bordin, 1981). Excessive consumption of alcoholic beverages is known to contribute to gastrointestinal and liver disorders as well as alcoholism, road accidents and fetal alcohol syndrome. However, recent studies in the United States (Mendelson & Melo, 1985) have suggested that men who drink liquor in moderate amounts may have lower rates of cardiovascular disease than abstainers. The results of the Canada Health Survey (Health & Welfare Canada, 1981) found that a moderate amount of alcohol consumption was related to general well-being and health. Drinking for women has traditionally carried a severe social stigma (Lender, 1986); nevertheless, the greatest increase in number of drinkers has occurred among women (Special report on alcohol statistics, 1981, cited in Lapierre, 1984).

#### Smoking

Cigarette smoking has been linked to cancer and other diseases of the respiratory system, fetal death and

possibly peptic ulcers and impaired fertility in women (Charbonneau, 1985). Statistics from Britain, Australia and New Zealand (cited in Charbonneau, 1985) report that a substantial number of nurses smoke and that generally the percentage of female nurses who smoke is higher than other women. A study of hospital staff in Peterborough, Ontario, (Senior, 1982, cited in Charbonneau, 1985) reported that 32% of nurses smoked and that 96% of the smokers reported smoking in the hospital. The 1982 U.S. National Conference on Smoking or Health (cited in Charbonneau, 1985) suggested that nurses are role models for clients in relationship to smoking behaviour:

...failure on the part of the nursing profession to act as non-smoking exemplars has a potentially negative impact on patients and the public. Smoking among nurses is particularly a problem because of the nurse's sustained contact with patients (p. 28).

Mason, 1985 President of the Canadian Council of Cardiovascular Nurses, and Rodger (cited in Charbonneau, 1985), Executive Director of the Canadian Nurses Association, have both stated that nurses who smoke may act as role models for others.

The Steve Fonyo Cancer Prevention Program of Alberta (Birdsell, McGregor & Hill, 1986) currently makes the following recommendations in order to reduce risks from smoking:

We recommend that all smokers quit; ex-smokers remain ex-smokers; (and) people who have never smoked remain

non-smokers and help others who wish to quit...(p. 4).

#### Nurses as Models of Health Behaviours

Bandura's social learning and modelling theory (1969) suggests that identification with another and imitation of others' behaviours result in a learning process of new behaviour. Observing human models is considered the primary means by which individuals learn many non-intellectual behaviours (Gagné, 1970). Modelled characteristics such as attitudes, behaviours and feelings may be considered good or bad and carry positive or negative rewards (Bandura, 1976; Brim, 1966; Hardy & Conway, 1978; Turner, 1956). Characteristics are learned within the process of social interaction (Hardy & Conway, 1978). Individuals who are perceived as having high status may act as examples by which others regulate their own behaviour (Bandura, 1976; Charles, 1976). Behaviours are learned more quickly when the behaviours are similar to those the other wishes to imitate (Bandura & Huston, 1961; Bandura, Ross & Ross, 1963).

It has been stated that modelling is inevitable; therefore, teachers and practitioners alike must be aware of the kind of model they are portraying (Kramer, 1968); nurses as health educators (Coutts & Hardy, 1985; Staff, 1986) may consider their modelling of certain health behaviours as a teaching technique. Nurses perceived as having high status



in the field of health may act as models for clients. Because of nurses' identification with health, they supposedly know how to be healthy. Clients as learners within the health education process may identify with and imitate nurses they consider to be successful in their area of expertise. Lifestyle behaviours which have been identified with health will be accompanied by personal and social rewards; habits linked with morbidity and mortality will be accompanied by punishment or lack of reward.

#### Nurses' Self-care

Orem's model (1980) of nursing practice is based on the concept of self-care, "the practice of activities that individuals initiate and perform on their own behalf in maintaining life, health and well-being" (p. 35). For Orem the concept of self-care requires a base of education in order to develop the knowledge, skills and attitudes related to self-care; the goal of health education becomes self-direction "toward a state of integrated functioning and well-being" (Orem, 1980, p. 120). Orem's theoretical model provides a basis for considering the nurse herself as responsible not only for her own health-related behaviour but also for her own learning to improve her own health.

Self-care is defined by Levin (1981, cited in Johns, 1985) as "a process whereby a lay person can function

effectively on his [sic] own behalf in health promotion and prevention and in disease detection and treatment at the level of primary health resource in the health care system" (p. 154). Emphasis on the individual's responsibilities and activities is expected to reduce health care costs, promote efficiency and improve health status (Allison, 1982).

The idea of self-care has been criticized as blaming the victim, forgetting the social context in which individuals make choices (Labonté & Penfold, 1981) and as expressing an elitist concept of the white middle-class:

Only those who have more time, education and wealth can "afford" to consider such philosophical stances as self-reliance or "authentic existence" (Allison, 1982, p. 12).

Emphasis by governments on individual responsibility for poor health has been suggested as rationale for fiscal restraint and budget cutbacks in health care services (Labonté & Penfold, 1981).

On the other hand, self-care can emphasize both personal and social responsibility and represent personal and group empowerment to make changes (Crawford, 1977, cited in Allison, 1982). Paulo Freire's (1973) concept of individuals' "critical consciousness" recognizes personal and collective identification of and reflection on aspects of reality, leading to personal and collective action to bring about change. Individual responsibility becomes linked

with social responsibility. The role of the health educator becomes facilitator:

As health professionals we have had the privilege of education and experience in health...; we must share that privilege in such a way that people rediscover their personal and collective power, and re-assume control over their own health through critical awareness of the social, economic and sexist conditions that have largely engendered poor health in the first place (Labonté & Penfold, 1981, p. 8).

Combining Orem's (1980) focus on self-care of client (whether individual, family or multiperson unit) with Freire's personal and social "critical consciousness" gives a basis to consider the individual nurse as responsible for the health of the nursing community and the nursing community's responsibility for the health of nurses.

#### Nurses' Goals for Personal Health

Nurses as health educators work with individuals in assisting them to improve their health; Brown and Margo (1978, cited in Allison, 1982) suggest that health educators may also have an advocacy role in health education that would "help people challenge health-damaging conditions in their communities and workplace" (p. 13). In order for nurses to assist themselves in understanding the factors which influence their health and to support individuals' and groups' actions to improve nurses' health, nurses may express present and future goals for health. Difficulties arise when one tries to translate goals into practice

(Huxley, 1963). Lawton (1984) suggests that dominant measures of subjective well-being include not only positive and negative affect, but also congruence between desired and achieved goals. Health care is shifting from the goal of obtaining medical care to the desire and need to keep well (Moonie, 1986); yet, curricula in Schools and Faculties of Nursing have generally not kept pace with the trend toward health promotion, wellness and self-care. Nurses may want to set goals for personal health yet they may lack the educational background and experience. Mass media messages rather than professional standards may influence nurses' standards of health behaviours; there is a proliferation of pamphlets, films and speakers available at little or no cost to health professionals from corporations who either directly or indirectly may be promoting their products. Recent examples included a health professional speaking on osteoporosis (sponsored by a drug company), a pamphlet on nutrition (published by the bread industry) and pamphlets on types of physical exercise (promoted by a life insurance company).

As nurses are seen as change agents (Wright & Leahey, 1984) it is important that they contemplate future changes in health so that interventions can be discussed, alternatives explored and strategies planned for the promotion of personal wellness of nurses. Nurses as a group are entrusted with keeping themselves healthy and with

assisting others to set goals and develop strategies to work towards health and wellness. Possibly nurses' creative potential can be used to develop a vanguard approach so that they will be able to effectively carry out their role as models and educators of health.

Previous studies (Okun et al, 1984) have suggested that future research should include multiple indicators of health, subjective well-being and objective measures of health. Collection, analysis and synthesis of quantitative and qualitative information about the target population will assist community health personnel to:

1. acquire an understanding of the health of the population and how it is changing;
2. make an overall evaluation of (the population's) level of health;
3. identify and classify (the population's) problems and needs;
4. decide what measures should be taken to alleviate these problems and satisfy these needs;
5. evaluate the effects of these measures (Peron & Strohmenger, 1985, p. 13).

Information on the health status of nurses is important as baseline data because community health officials cannot know where they are going or how far they have progressed unless they know where they are (Tolsma, 1983, p. 29).

## Chapter III

### Research Design

#### Method

This descriptive and non-experimental study collected data through use of questionnaire and interview without deliberate manipulation of variables or control over the research setting. Only associative rather than direct relationships are implied (Abdellah & Levine, 1979).

#### Sample

At the time of the study there were 310 female registered nurses employed full-time on the membership list of District 5, Ward 4 of the Alberta Association of Registered Nurses (AARN, personal communication, March 31, 1987); these individuals had mailing addresses of: Lethbridge, Barnwell, Coalhurst, Coaldale, Cranford, Kipp, Sterling, and Welling. A group of 100 were chosen by simple random sampling. Females were chosen as they have been identified as a target group for health promotion as women are exposed to a unique combination of lifestyle risks (Stephens, 1985).

### Instrumentation

Iveson and Mullen (1983) suggest that use of national survey instruments or other commonly used instruments that have been designed by experts (in content and measurement), used on a variety of populations, and used over a period of time are likely to be well constructed and usable. The respondent-completed questionnaire from the Canada Health Survey (Health & Welfare Canada, 1981) consisted of questions on well-being and lifestyle practices associated with physical activity, alcohol and tobacco use, seat belt use and female preventive behaviours (pap test and breast examination).

In this study subjective well-being, as a self-perceived global affective experience along a positive-negative continuum (Okun, Stock, Haring & Witter, 1984, p. 114), was operationalized by use of the Affect Balance Scale and Health Opinion Survey (Health & Welfare Canada, 1981). Health status was operationalized with self-report measures of certain lifestyle behaviours, preventive practices and immune status. Pap smear, breast examination, seat belt use and use of alcohol and tobacco were assessed by a questionnaire adapted from the Canada Health Survey (Health & Welfare Canada, 1981). (Permission was obtained from Statistics Canada to use items from the Canada Health Survey: see Appendix A). A question on physical activity

from Godin, Jobin & Bouillon (1986) reported frequency of vigorous, leisure-time physical activity; this question on leisure time exercise behaviour has been validated as a measure of actual physical activity and physical fitness level. Immunity was assessed through a question designed by the researcher. One question designed by the researcher using a Likert scale assessed the degree to which individuals perceived themselves as role models of health.

As a dynamic state, health may be considered as incorporating aspects of past, present and future. Questionnaires on subjective well-being and health status are tapping the effects of past and present experiences and learning about health. In an attempt to explore and describe future goals for health ten participants were interviewed using interview questions designed by the researcher.

Objective physical measurements (such as blood pressure, physical fitness and blood cholesterol) were not assessed in this study due to limitations of time and resources. Other studies have shown support for self-reported measures as accurate estimates of health (Godin et al., 1986; Okun et al., 1985).

#### Piloting of Questionnaire and Interview

Both the questionnaire and interview were pilot tested with a group of Registered Nurses in the Bachelor of Nursing



program of the University Of Lethbridge. After a scheduled university class, questionnaires were completed by 11 nurses; responses and comments on the questionnaire were analyzed. Two nurses were interviewed, the interviews were transcribed and the interview questions examined for clarity. After this pretest, minor changes were made to the questionnaire and interview tools.

#### Data Collection

This study followed the ethical principles of the American Psychological Association (1982) regarding informed consent, withdrawal from the study at any time and confidentiality of participants' identities. The research proposal was approved by the University of Lethbridge Human Subjects Research Committee (see Appendix B).

The researcher obtained agreement from the AARN (Alberta Association of Registered Nurses, see Appendix C) for the AARN to mail questionnaires, consents for interviews and stamped, return envelopes to the subjects in the sample. The package that was prepared by the researcher and mailed by the AARN consisted of the following: (a) an explanatory letter (see Appendix D); (b) questionnaire on affect (see Appendix E, Section I: Affect Balance Scale); opinion of personal health (Section II: Health Opinion Survey) and lifestyle practices (Section III, Items 1-6) adapted from the Canada Health Survey (Health & Welfare Canada, 1981);

Godin, Jobin and Bouillon's question (1986) on physical activity (Section III, Item 7); a question designed by the researcher on immune status (Section III, Item 8); a question on perception of self as a role model of health (Section III, Item 9); demographic information (Section IV); consent for interview (Section V); and (c) stamped, return envelope. Two weeks after the initial mailing a follow-up letter was mailed to the 100 potential subjects (see Appendix F). Ten participants were interviewed with interview questions designed by the researcher (see Appendix G).

#### Instrument Scoring

The questionnaire on subjective well-being (see Appendix E, Section I) was scored according to the Affect Balance Scale of the Canada Health Survey (Health & Welfare Canada, 1981). Items A, C, E, G and I as measures of positive affect and items B, D, F, H, and J as measures of negative affect provided a Positive Affect Scale (PAS) and Negative Affect Scale (NAS) by weighting responses: often:1; sometimes:2; and never:3. In the event that all items were not completed, scoring on the PAS and NAS was similar to that used with the Canada Health Survey (O. Adams, personal communication, December 8, 1986):

- a) count the number of items with a valid response (e.g. 1,2,3) (for the PAS and NAS separately).
- b) if this sum is less than 4 either PAS or NAS is assigned a value of 0--not stated.

c) if this sum is greater than or equal to 4, the appropriate weights are assigned to each item with a valid response.

d) the sum obtained from c) is multiplied by 5 and divided by the number of items with a valid response.

e) fractional results from d) are rounded to the nearest whole number.

The Affect Balance Scale is obtained by comparing the Positive Affect Scale and Negative Affect Scale (see Figure 1).

The questions of the Health Opinion Survey (Appendix E, Section II) were scored, similar to the Canada Health Survey, according to the frequency of occurrence (often:1; sometimes:2 and never:3) resulting in a single score from 16 to 48 for an individual. (Scoring on Item H was reversed.) When items were not answered, the following procedure was followed: if the total number of items completed was less than 13, the individual's score was given as "not stated". When the total number of items answered was 13 and over, the total score was multiplied by 16 (the maximum number of possible items) then divided by the number of items completed (O. Adams, personal communication, March 17, 1987).

Responses to the first eight items in the lifestyle portion of the questionnaire (see Appendix E, Section III, Items 1-8) were coded according to frequency of response; the first response "never" was coded "1", with each category of the behaviour given an increasing number. For example, in the question on seat belt use, "never or no seat belts" was coded 1; rarely: 2; most of the time: 3; and always: 4.

		Positive Affect Scale			
		5-7	8-12	13-15	0 (not stated)
Negative Affect Scale	5-7 :	2	3	3	0
	8-12 :	1	2	3	0
	13-15 :	1	1	2	0
	0 (not stated):	0	0	0	0

Value Labels for Affect Balance Scale

- 0 Not Stated
- 1 Positive Balance
- 2 Neutral (Mixed)
- 3 Negative Balance

From O. Adams, personal communication, December 8, 1986.

Figure 1. Procedure for Obtaining Affect Balance Scale Score by Comparing Positive Affect Scale Score and Negative Affect Scale Score.

Item 9 regarding the perception of self as a role model of health used the following rating: strongly agree: 5; agree: 4; neutral or no opinion: 3; disagree: 2; strongly disagree: 1. The questionnaire responses were coded by the researcher and this coding was checked for accuracy and consistency by a co-recorder.

#### Data Analysis

The analysis of the data included the use of descriptive information from the questionnaire on demography, subjective well-being, health status (lifestyle and preventive practices) and perception of self as a health role model. The responses of the 59 participants on the questionnaire is described through narrative, frequency counts and percentages. The statistics program, Statview 512+ (Brainpower, 1986), was used on a Macintosh computer to analyze the data. The non-parametric chi-square test has been used to compare the responses on the various parts of the questionnaire.

The assumption has been made that the Canada Health Survey (Health & Welfare Canada, 1981) results represent the population; the results were presented as percentages of Canada's population at the time of the survey. The Z test of proportions was used to determine whether there were any statistically significant differences between the proportion of the study sample and the Canada Health Survey population

practicing a specific health behaviour. The test consisted of applying the following formula:

$$Z = \frac{p - a}{\sqrt{a(1-a)/n}} \quad (\text{Glass \& Stanley, 1970, p. 323})$$

The hypothesis tested was that  $\underline{P} = \underline{a}$  where  $\underline{a}$  is the proportion in the actual population, and  $\underline{p}$  is the estimator of  $\underline{P}$  (and thus the proportion in the sample). Because a number of such tests were performed an alpha level of .01 was used. Thus Z values exceeding the critical limits of  $\pm 2.58$  would be cause to reject the hypothesis of no difference between the percentage of the sample and the percentage on the Canada Health Survey exhibiting the same behaviour.

## Chapter IV

### Results

#### Demographic Data

From a total of 100 questionnaires mailed to Registered Nurses in the designated area, 69 were returned. In a study of nurses' health habits and health teaching, Valentine and Hadeka (1986) had a response rate of 70.4%; the Canada Health Survey (Health & Welfare Canada, 1981) where questionnaires were left at homes then picked up later had almost a 90% response rate.

Two participants were excluded from this study because they did not meet the criterion of full-time employment, defined as at least 30 hours of work per week. Eight of the questionnaires were received after data analysis had been completed. The resulting sample of 59 included two nurses who were on temporary maternity leave. The demographic characteristics of the respondents are presented in Table 1.

Almost two-thirds of the participants were in the age range 25 to 44, 32% were in the 45 to 64 age range and seven percent were age 24 and under. Almost 60% of the sample were married with 17% reported as single (never married) and 15% as divorced. Nine percent of the sample included those

Table 1  
 Characteristics of the Sample

	Total (N=59)	% of Total
Age: 20-64		100
20-24	4	6.8
25-34	18	30.5
35-44	18	30.5
45-54	13	22.0
55-64	6	10.2
Marital Status:		100
Single (never married)	10	16.9
Married	35	59.3
Divorced	9	15.3
Other	5	8.5
Years of Experience in Nursing: (full-time equivalent)		100
0-5	6	10.2
6-10	16	27.1
11-15	16	27.1
16-20	11	18.6
20+	10	17.0
Area of Employment:		100
Hospital	37	62.7
Community Health	12	20.3
Teaching Nursing	5	8.5
Other	5	8.5
Hours Worked per Week:		100
32-39	29	49.2
40-49	24	40.7
50-65	6	10.2
Size of Community of Residence:		100
Under 250	1	1.7
1000-2499	2	3.4
2499-4999	2	3.4
5000+ (city)	53	89.8
Unknown	1	1.7



who reported their marital status as widowed, separated or other.

The sample group reported a large range in numbers of years of experience in nursing (full-time equivalent) with the majority having six to 15 years of experience. Nursing in hospitals was the most frequent area of employment, followed by Community Health Nursing, and teaching of nursing. Other areas of employment included nursing home, homecare, correctional centre, children's home and community mental health nursing. About 90% of these nurses lived within the city of Lethbridge, although some of these were discovered through interviews as working outside the city. Also through interviews the researcher found that some of the five nurses living in a community outside of the city or in a rural setting travelled daily to work in Lethbridge. Hours of work ranged from 32 to 65 with the median number being 40. Comments on the questionnaire and the interviews revealed that some nurses worked unpaid overtime on a daily basis (see Appendix H).

The educational level attained by the sample group was compared with the Alberta Association of Registered Nurses' (AARN, personal communication, March 31, 1987) membership for the same area to assess the representativeness of the sample to the population (see Table 2). It would appear that the sample represented the variety of levels of

Table 2

Highest Level of Education Attained by Sample in Comparison with  
AARN Membership Figures (Same District and Ward)

	Sample		AARN	
	N=59	%	N=310	%
Nursing diploma only	23	38.9	142	45.8
Bachelor degree in nursing	18	30.5	75	24.2
Post-graduate certificate in nursing	6	10.2	71	22.9
Master & Ph.D in nursing	3	5.1	4	1.3
Post-basic/Non-nursing	4	6.8	18	5.8
Courses toward Bachelor degree	5	8.5	Not recorded	

AARN data from AARN, personal communication, 31 March 1987.

educational preparation attained by the population, although the sample had lower percentages of nurses with nursing diploma only or post-graduate nursing certificate. The sample also had a higher percentage of nurses with post-RN nursing degrees (bachelor, master or doctorate). Comments on the questionnaire indicated nine percent of the sample were taking courses toward a bachelor degree in nursing (see Appendix H).

#### Questionnaire Data

Data from the responses on the questionnaires are described through narration (frequencies and percentages of responses); data has been analyzed using the non-parametric chi-square test; and the results have been compared with the results of the Canada Health Survey (Health & Welfare Canada, 1981) using the Z test of proportions. Because of the small frequencies in some of the categories the results must be considered with some caution.

Written comments on the questionnaires (see Appendix H) expanded the quantitative data accumulated from the questionnaire. Written remarks related to the format of the instrument as well as details pertaining to each question.

#### Subjective Well-being

Generally the scores of the sample on tests of emotional well-being indicated positive well-being and

infrequent symptoms of anxiety and depression. Ninety-three percent of the sample considered themselves to be "pretty happy" or "very happy". Data from the Affect Balance Scale scores reported that 63% of the total group of participants had a positive score, 36% with a mixed or neutral balance and two percent (N=1) with a negative balance (see Table 3). In a study (Light & Hansen, 1982) of female nurses, home economics teachers, a women's political group and a women's church group, the nurses had the lowest mean anxiety score, lowest mean depression score and lowest mean hostility score; all these scores of nurses in Light and Hansen's study were below the norm score for adult females.

Although descriptions of feelings are relative terms, trends can be identified with the characteristics of the sample, such as marital status, education, area of employment, number of hours of work and age (see Table 3). Seventy-one percent of those married, 70% of the single, 44% of the divorced and 20% reported with other marital status (separated, widowed, and common-law) had positive Affect Balance scores. Those with mixed or neutral feelings reported their marital status as other (80%), divorced (56%), single (30%) and married (27%). These study results reflect the Canada Health Survey's findings that the widowed, divorced, and separated are less happy than others (Health & Welfare Canada, 1981, p. 129). Of the total with positive Affect Balance Scale scores, 38% had a nursing

Table 3

## Affect Balance Scale Scores by Characteristics of the Sample

	<u>Total</u>	<u>Percent of Responses</u>		
	N	Positive Balance	Mixed	Negative Balance
Total:	59	62.7	35.6	1.7
Marital Status:				
Single	10	70	30	0
Married	35	71.4	25.7	2.9
Divorced	9	44.4	55.6	0
Other	5	20	80	0
Education:				
Nursing Diploma Only	23	60.9	39.1	0
Bachelor, Master, Ph.D. in Nursing	21	66.6	28.6	4.8
Other	15	60	40	0
Employment:				
Hospital	37	62.2	37.8	0
Community Health	12	66.7	25	8.3
Teaching Nursing	5	80	20	0
Other	5	40	60	0
Hours of Work per Week:				
30-39	29	51.7	44.8	3.5
40-49	24	70.8	29.2	0
50-59	6	83.3	16.7	0
Residence:				
Rural, Town	5	100	0	0
City (population: 60,000)	53	60.4	37.7	1.9
Unknown	1	0	100	0

diploma only, 38% had a degree or doctorate in nursing, and 24% had other post-RN education. Forty-three percent of those with mixed or neutral feelings had a nursing diploma only.

Positive feelings were indicated more frequently by subjects who were teaching nursing than by the other participants. Those working in hospitals reported the highest percentage of mixed feelings. Perhaps income was a factor in these findings as income was suggested by the Canada Health Survey (Lapierre, 1984, p. 47) as influencing well-being: positive affect was reported more frequently by those with higher incomes. Generally in the present study individuals did not differ in subjective well-being according to experience in nursing (full-time equivalent). It is interesting to note that those who worked a longer work week had a higher percentage of positive Affect Balance Scale scores than those who worked shorter hours. Those who lived in the country or towns had a higher percentage of positive scores than those nurses who lived in the city.

Although descriptions of feelings are relative and the sample of nurses was small ( $N=59$ ) compared with the Canada Health Survey ( $N=24,000$ )(CHS; Health & Welfare Canada, 1981) the percentage of nurses in each age group that had positive Affect Balance Scale scores was higher and the percentages with mixed or negative balance was lower than the percentage of a comparable group in the CHS results

Table 4  
Affect Balance Scale Scores of Females by Age:  
Comparison of the Sample with the Canada Health Survey, 1981

	Nurses 1987		CHS 1981
	N=59	Percent	Percent
Total:	59	100	
Positive	37	62.7	
Mixed	21	35.6	
Negative	1	1.7	
Unknown	0	0	
20-24:	4	100	100
Positive	3	75.0	45.8
Mixed	1	25.0	45.8
Negative	0	0	4.8
Unknown	0	0	3.6
25-44:	36	100	100
Positive	21	58.3	46.5
Mixed	14	38.9	43.1
Negative	1	2.8	4.6
Unknown	0	0	5.9
45-64:	19	100	100
Positive	13	68.4	44.4
Mixed	6	31.6	35.8
Negative	0	0	5.1
Unknown	0	0	14.6

CHS 1981 data from the Canada Health Survey, Health and Welfare Canada, 1981, p.133; CHS data was recorded as percentages of Canada's population at the time of the survey.

(see Table 4). Of the four individuals who were 20-24 years old, three had a positive balance score and one had a score showing mixed feelings; of those 25-44 years old, 58% had positive balance, 39% had mixed or neutral balance scores and three percent (N=1) had a negative balance score. Two-thirds of those 45-64 years old had positive balance and one-third had mixed or neutral balance scores. The percentages of the sample with infrequent symptoms of anxiety and depression as measured by the Health Opinion Survey were greater than the percentages in comparable age groups of the Canada Health Survey for those age 25-44. The percentage with infrequent symptoms was less in the present study than in the CHS for the age group 20-24 years, however the sample was small (N=4)(see Table 5); only 2% of the total group reported frequent symptoms of anxiety and depression on the Health Opinion Survey instrument. The differences between the sample and the Canada Health Survey results were not statistically significant using the Z test of proportions. The Canada Health Survey found that there were differences between males and females on measurement of subjective well-being with men scoring more toward positive balance; the present study did not have any male participants.

In considering the responses of the participants on the Positive Affect Scale (PAS) and the Negative Affect Scale (NAS) which went into scoring the Affect Balance Scale, the



Table 5

Health Opinion Survey Scores of Females by Age: Comparison of  
the Sample with the Canada Health Survey Scores, 1981

	<u>Nurses 1987</u>		<u>CHS 1981</u>
	N=59	Percent	Percent
Total:	59	100	
Infrequent symptoms of anxiety and depression	58	98.3	
Frequent symptoms of anxiety and depression	1	1.7	
20-24:	4	100	100
Infrequent symptoms of anxiety and depression	3	75.0	94.3
Frequent symptoms of anxiety and depression	1	25.0	5.1
Unknown	0	0	0.6*
25-44:	36	100	100
Infrequent symptoms of anxiety and depression	36	100.0	93.9
Frequent symptoms of anxiety and depression	0	0	4.4
Unknown	0	0	1.7*
45-64:	19	100	100
Infrequent symptoms of anxiety and depression	19	100.0	87.9
Frequent symptoms of anxiety and depression	0	0	6.9
Unknown	0	0	5.2

CHS 1981 data from Canada Health Survey, Health and Welfare Canada, 1981, p.34.

\*Sampling error greater than 20% and less than 40% reported by CHS 1981.

item on the PAS marked most frequently as "often" was "particularly excited or interested in something"; the item marked most frequently as "sometimes" was "proud because someone complimented you on something you had done". The items on the the NAS scored most frequently as "often" was "bored", and most frequently as "sometimes" was "upset because someone criticized you". Written comments under the Affect Balance Scale (see Appendix H) included the following: "have just had 2 weeks vacation"; "mood changes usually occur during or in conjunction with menstruation"; "recently divorced"; "my husband has just been laid off"; and the following statement:

Sometimes people I work with can ruin my whole day by being difficult to work with. A lot of days I just want to get home. It's a stressful job.

The symptom on the Health Opinion Survey reported most frequently as "often" related to trouble getting to sleep and staying asleep. The symptom reported most frequently as "sometimes" concerned a feeling of tiredness in the mornings. Written comments provided personal experiences and feelings related to tiredness, sleeping problems and shift work; a sample of the variety and strength of remarks is given:

Tired in general - trying to keep up with everything (run down).

The hardest thing I do every morning is get out of bed.

No problem falling asleep, but have awakened early and not been able to go back to sleep - when wrestling with some problem (times in my life).

I work permanent 11-7; I sometimes have sleeping problems.

I often have difficulty getting to sleep as I seem to go over things that happened at work. I work on a call unit which can be quite stressful and I also work a 12 hour shift which is hard on one's system.

### Pap Test

Forty-eight percent of the participants had had a pap smear test in the previous year, 41% within one to three years and ten percent of the sample more than three years prior to the study. These results compare with 66% of Edmonton women who reported a pap smear test within the last year (Macdonald & Kurji, 1986) and three-quarters of nurses and nursing students in Valentine and Hadeka's study (1986) who reported an annual pap test. Fifty-eight of the possible total of 59 subjects reported pap smear tests compared with 21% of a national sample (Health & Welfare Canada, 1981) and 12% of Toronto women age 15 and over (City of Toronto, 1983) who reported never having had a pap test.

In the present study 60% of the younger group (20-44 years) and 21% of the older group (45-64 years) had had a pap smear within the previous 12 months with a decline in the percentage of the sample having a yearly pap test after the age of 35. The percentage of those age 25 to 64 who reported a recent pap test in this study was less than

reported in the Canada Health Survey (see Table 6); the differences in percentages were not statistically significant when the Z test was used. In this study the relationship between age and time lapse since last pap smear test was statistically significant with proportionately more of those aged 44 years and under having a pap test in the previous year than those participants who were 45 years or older (total chi-square=7.1,  $N=58$ ,  $p=.01$ )

Comments about pap smear tests on the questionnaires included the following:

A lot of coworkers are embarrassed to go to someone for a pap smear when they work closely with them every day. Our head nurse hasn't had a pap smear test in years. Some example!

I hate pelvic exams.

#### Breast Self Examination

Twenty-nine percent of the sample practiced breast self-examination (BSE) monthly, 44% quarterly, 20% less often and 7% never practiced BSE. The 29% of the subjects who practiced monthly BSE compares with 52% of women in Edmonton and 21% of the Canada Health Survey. The percentage of the sample who never practice BSE was lower than the national and Edmonton results. Although breast cancer has been the leading cause of death for women age 35-54 (Health & Welfare Canada, 1981, p. 161) and most breast cancer is found by women themselves (Macdonald & Kurji, 1986), only 32% of those age 44-64 in the sample

Table 6

Pap Smear Test, Females with Post-Secondary Diploma or Degree:  
Comparison of the Sample with Canada Health Survey, 1981

Nurses 1987		CHS 1981	
	N=59	Percent	Percent
Total:			
Pap test less than 1 year ago	28	47.5	
Pap test 1-3 years ago	24	40.7	
Pap test more than 3 years ago	6	10.2	
Never	0	0	
Unknown	1	1.7	
Age 20-24 years:			
	4	100	100
Pap test less than 1 year ago	4	100	Pap test less than 1 year ago 61.3
Pap test 1-3 years ago	0	0	Pap test 1-2 years ago 13.8
Pap test more than 3 years ago	0	0	Pap test more than 2 years ago --
Never	0	0	Never 18.6
Unknown	0	0	Unknown --
Age 25-44 years:			
	36	100	100
Pap test less than 1 year ago	20	55.6	Pap test less than 1 year ago 64.4
Pap test 1-3 years ago	15	41.6	Pap test 1-2 years ago 18.6
Pap test more than 3 years ago	1	2.8	Pap test more than 2 years ago 10.8
Never	0	0	Never 5.9*
Unknown	0	0	Unknown --
Age 45-64 years:			
	19	100	100
Pap test less than 1 year ago	4	21.1	Pap test less than 1 year ago 42.8
Pap test 1-3 years ago	9	47.3	Pap test 1-2 years ago 23.6
Pap test more than 3 years ago	5	26.3	Pap test more than 2 years ago 23.2
Never	0	0	Never 9.3*
Unknown	1	5.3	Unknown --

CHS 1981 from Lapierre, 1984, p.26.

\*Sampling error greater than 20% and less than 40%; amount too small to be expressed shown by double hyphen according to CHS 1981 data.

practice BSE on a monthly basis and 37% on a quarterly basis (see Table 7).

The percentage with post-RN education who practiced monthly BSE was found to be higher than those with a nursing diploma only; CHS findings noted a relationship between frequency of BSE and education level. Forty percent of those teaching nursing practiced monthly BSE compared with 20 to 30% of nurses in other occupations.

Specific concerns were shared in written comments after the question on breast examination.

Have developed fibrocystic disease. I have regular checks.

I examine myself monthly as I have had a biopsy that was suspicious but benign.

Strong family history of Ca (Cancer) so I have a yearly exam.

#### Alcohol Consumption

Although women have been reported as abstainers more frequently than men (Lapierre, 1984, p. 15) all 59 of the participants reported that they consumed alcoholic beverages. When the participants were categorized according to the amount of alcohol consumed similar to the CHS categories, 24% of the total were considered occasional (drink less than once a month) and non-drinkers and 76% as current drinkers (consume alcoholic beverages at least once a month). When the study participants were grouped according to age, of the 40 women 44 years of age and under,

Table 7

Breast Self-examination, Females with Post-secondary Diploma or Degree: Comparison of the Sample with the Canada Health Survey, 1981

	<u>Nurses 1987</u>		<u>CHS 1981</u>
	N=59	Percent	Percent
Total:	59	100	
Monthly	17	28.8	
Quarterly	26	44.1	
Less often	12	20.3	
Never	4	6.8	
Don't know how	0	0	
Unknown	0	0	
Age 20-24:	4	100	100
Monthly	2	50	21.4
Quarterly	2	50	22.6
Less often	0	0	27.9*
Never	0	0	21.7
Don't know how	0	0	--
Unknown	0	0	--
Age 25-44:	36	100	100
Monthly	9	25	25.1
Quarterly	17	47.2	28.8
Less often	7	19.4	23.1
Never	3	8.3	18.5
Don't know how	0	0	4.0
Unknown	0	0	--
Age 45-64:	19	100	100
Monthly	6	31.6	26.8
Quarterly	7	36.8	26.4
Less often	5	26.3	27.2
Never	1	5.3	14.2
Don't know how	0	0	--
Unknown	0	0	--

CHS 1981 data from Lapierre, 1984, p.25.

\*Sampling error greater than 20% and less than 40%; amount too small to be expressed shown by double hyphen according to CHS data.

18% were occasional and non-drinkers and 82% were considered current drinkers. Of the group 45 years and over, 37% were occasional and non-drinkers and 63% were current drinkers. Of the current drinkers, 73 percent were in the younger group; the CHS (Health & Welfare Canada, 1981) also found that a higher proportion of current drinkers were in the younger ages.

Increased alcohol consumption has been shown to have a positive relationship with education, income and employment (versus unemployment or outside the labour force)(Health & Welfare, 1981, p. 24). Although the percentage of current drinkers in the present study did not appear to have a positive relationship with education, the percentage may have a positive relationship with occupational status with a higher percentage of subjects reporting alcohol consumption when employed as teachers of nursing and a smaller percentage of subjects employed in fields other than hospital, community health, or teaching.

The percentage of the sample group who drank more than once a month (76%) is higher than the Canada Health Survey findings which reported 68% of employed females (age 20-65) who drank alcoholic beverages once a month or more (see Table 8). It is impossible to determine whether this difference is related to the particular group or if the results reflect an increase in the number of women who



Table 8

Alcohol Consumption by Employed Females: Comparison of the  
Sample with the Canada Health Survey, 1981

	<u>Nurses 1987</u>		<u>CHS 1981</u>
	N=59	Percent	Percent
Occasional & non-drinkers (alcoholic beverages < once per month)	14	23.7	29.1
Current drinkers (alcoholic beverages at least once per month)	45	76.3	68.1
Unknown	0	0	2.9

CHS 1981 data from Lapierre, 1984, p.18.

drink; since the 1981 study it may have become more socially acceptable for women to admit liquor consumption.

Of those who consumed alcoholic beverages at least once a month (N=45), 44% reported they drank about once or twice a month, 36% about once a week, 16% about three times a week and 4% once or twice a day. No one reported drinking more than twice a day. The Canada Health Survey reported that, of the employed females (age 20-65) who drank alcoholic beverages once a month or more, 71% reported having seven drinks or less per week, 13% had eight to 13 drinks and nine percent had 14 drinks or more per week (Lapierre, 1984, p. 18). Although the present study assessed frequency of alcohol consumption and the Canada Health Survey assessed volume of alcohol consumed, the results of this study may suggest that although a greater percentage of nurses than females in the national study consumed alcohol, the amount consumed by the nurses may be less than the national sample as no nurse reported consuming alcohol more than twice a day.

Comments after the question on alcohol consumption showed the variability in frequency of liquor consumption.

This varies from periods when I have none to periods when I have one drink a day.

During pregnancy (less than) average.

### Cigarette Smoking

Seventy-six percent of the subjects reported they were non-smokers. Of the current smokers, approximately half reported smoking one-half package of cigarettes daily and half of the smokers reported smoking one-half to one package daily. No one reported smoking more than one package of cigarettes daily.

There appeared to be a relationship between subjective well-being and smoking. Sixty-four percent of the non-smokers and fifty-four of the smokers had positive affect scores on the Affect Balance Scale; whereas, 33% of the non-smokers and 46% of the smokers have mixed or neutral affect on the Affect Balance Scale. There was a higher proportion of smokers who are divorced compared with other categories of marital status. Unlike the CHS this study did not find a higher percentage of smokers in the younger age categories.

There was a higher percentage of non-smokers (76%) in this sample compared with 58% of the employed females 20 to 65 years in the CHS (see Table 9) and 68% of females in Edmonton (Macdonald & Kurji, 1986). The lower percent of nurses who reported smoking when compared with other women was previously reported in a study of the health practices of 608 nurses and nursing students (Valentine & Hadeka, 1986); the authors speculated that smokers may have been part of the non-responders in the study or that subjects may

Table 9  
Cigarette Smoking by Employed Females: Comparison of the  
Sample with Canada Health Survey, 1981

	<u>Nurses 1987</u>		<u>CHS 1981</u>
	N=59	Percent	Percent
Occasional & non-smokers* ( < one cigarette daily)	45	76.3	58.2
Smokers (one cigarette daily or more)	13	22.0	36.9
Unknown	1	1.7	4.9

CHS 1981 data from Lapierre, 1984, p.21.

\*Z test significant;  $p < .01$ .

have manipulated their responses in the questionnaire. One participant in this present study commented on the questionnaire that she had quit smoking two months prior; it is impossible to know from these findings if non-smokers had previously smoked or might return to smoking.

The percentage of occasional and non-smokers in the present study compared with the Canada Health Survey results appears to be statistically significant with a lower percentage of nurses who do not smoke ( $N=59$ ,  $Z=3.02$ ). The results of this study and those of Edmonton females may suggest that there has been a reduction in the number of females who smoke. With the trend toward quitting smoking and the designation of non-smoking areas, certain written comments on the questionnaires seem impressive.

We had to fight tooth and nail for our coffee room to be a non-smoking area.

Allergic to smoke - makes it difficult when doing home nursing.

#### Seat Belt Use

Fifty-nine percent of the participants reported that they use seat belts most or all of the time. Forty-one percent of the nurses reported rarely or never fastening their seat belts compared with 30% of males and females in Canada in 1981 (see Table 10) and 37% of female Edmontonians (Macdonald & Kurji, 1986). Seat belts were worn by more individuals in the younger age groups (20-44 years) than by nurses in the older age categories (45 and over). Seat

belts were worn always or most of the time by all community health nurses, but never or rarely used by 54% of hospital nurses, 40% of teachers of nursing and 40% of nurses in other jobs compared with 54% of hospital nurses and 42% of community health nurses who never wore seat belts in Valentine and Hadeka's study in Vermont (1986). There was a statistically significant relationship between area of employment and seat belt use in the present study with 83% of hospital nurses rarely or never using their seat belts and 51% of nurses working outside of hospitals wearing seat belts most or all of the time (total chi-square=7.36, N=59, p=.01).

With the possibility of impending seat belt legislation in Alberta, it is interesting that comments on the questionnaire revealed a situational aspect to seat belt use.

Always during highway travel.

I do in Saskatchewan.

Only when I travel out of province.

April's legislation will (illegible) this - am now making a conscious effort.

The Canada Health Survey (1981) found that only 14% of the population wore seat belts in provinces without seat belt legislation.

Table 10  
 Use of Seat Belts: Comparison of the Sample with  
 the Canada Health Survey, 1981

	<u>Nurses 1987</u>		<u>CHS 1981</u>
	N=59	Percent	Percent
Always or most of the time	35	59.3	49.2
Inconsistently			3.1
Rarely or never	24	40.7	29.7
Unknown	0	0	18.0

CHS 1981 data from Health & Welfare Canada, 1981, p.92; CHS 1981 data included males and females together; age of participants in CHS was 15 and over; nurses included females only, age 20-64.

### Physical Activity

Twenty percent of the nurses in this study did not participate in vigorous leisure time physical activity; 20% participated less than once a month; 14% about once a month; 34% once or twice a week and 12% more than twice a week (see Table 11). From the five possible responses to the question on physical activity, research subjects' responses were categorized as those of exercisers (those who participated in physical activity once a week or more) and non-exercisers (those who participated in physical activity about once a month or less). Physical activity appeared to be more common in the young, with participants who had education beyond a nursing diploma, those with a shorter work week and those in certain types of nursing. With increasing age, the frequency of exercise decreased; of those 44 years and younger half were exercisers; of the group 45 years and older 37% were exercisers. Of the non-exercisers, 47% had a nursing diploma only and 53% had post-basic preparation; of the exercisers, 30% had a diploma only and 70% had educational courses beyond a nursing diploma. Of the exercisers, 63% worked 30-39 hours per week, 26% worked 40-49 hours and 11% worked 50-65 hours per week. The percentage of exercisers who were employed in community health and teaching was higher than the percentage of exercisers employed in hospitals and other work settings; the Canada Health Survey (Health & Welfare Canada, 1981, p.



Table 11

Physical Activity of Females: Comparison of the  
Sample with the Canada Health Survey, 1981

Nurses 1987		CHS 1981	
	N=59	Percent	Percent
Participation in vigorous physical activity or sports:			Did sports in last 12 months 64
Not at all	12	20.3	Did exercises in last 12 months 60
<once/month	12	20.3	
About once/month	8	13.6	In last month did exercises 60
About 1-2 times/week	20	33.9	
3 or more times/week	7	11.9	In last month did no exercises 26
			Limited ability to participate 14

CHS 1981 data from Lapierre, 1984, p.24; age of females in CHS 1981 was 10 and over; age of nurses was 20-64.

72) found that those individuals with higher occupational status were more physically active than other workers.

Unlike the Canada Health Survey results (Health & Welfare, 1981), those who were more physically active did not have a higher percentage of positive affect scores on the Affect Balance Scale. Forty-six percent of the total sample of nurses participated in vigorous leisure time physical activity once a week or more compared with 36% of adult Canadians who reported minimum recommended levels of physical activity and 86% of females (age 10 and older) who reported doing exercises or sports in the previous month to the Canada Health Survey (Health & Welfare, 1981, p. 71). Eight percent of nurses and nursing students reported daily vigorous exercise and 37% reported seldom exercising in Valentine and Hadeka's study (1986) of nurses' health practices.

From the written questionnaire comments in this study injury and lifestyle were noted as affecting exercise behaviour and routine.

Was going to exercise class, hurt my back, will resume same.

I was until I suffered a bad sprain (three months ago).

I don't have time - work full time, family and home and attend university part time.

The schedule sometimes slips but I try.

### Immune Status

Between five and 20% of the subjects did not know or did not report when they had had their last diphtheria, tetanus or polio immunization (see Table 12). Twenty-seven percent reported that their tetanus immunization had been more than ten years prior, 32% that their oral polio was more than ten years prior, and 42% that their Salk polio was more than ten years prior to the study. The Canada Health Survey (Health & Welfare Canada, 1981, p. 95) found through blood samples that 21% of the population in the prairie provinces and almost half of Canada's population age 35-44 years were susceptible to one of three types of poliomyelitis.

Of the 17 participants age 25-34 years who answered the item on rubella immunization 41% did not know their immunization status; 12% of the 16 participants in this same age category who completed the item on rubella titre test did not know their rubella titre. The Canada Health Survey found low rubella titres in women 25-34 years old (Health & Welfare Canada, 1981, p. 96); thus, these women of child-bearing age may be susceptible to a disease which, if developed during pregnancy, may cause birth defects in infants.

Forty-six percent of the subjects had had a tuberculin test four years or more before the study; 12% did not know or did not report their last tuberculin test. Seventeen

Table 12

Time Lapse Since Last Immunization or Test Received by Sample

	Percent of Responses (N=59)					
	Never	<3years ago	4-10 years ago	>10 years ago	Don't know	Not reported
Diphtheria immunization	0	15.3	32.2	35.6	10.2	6.8
Tetanus immunization	0	20.3	40.7	27.1	6.8	5.1
Sabin oral polio	0	3.4	44.1	32.2	10.2	10.2
Salk polio immunization	1.7	5.1	20.3	42.4	20.3	10.2
Rubella immunization	28.8	3.4	15.3	23.7	20.3	8.5
Rubella titre test	16.9	11.9	28.8	15.3	13.6	13.6
Tuberculin skin test	3.4	39.0	25.4	20.3	3.4	8.5
BCG vaccine	16.9	1.7	13.6	45.8	8.5	13.6
Hepatitis B vaccine	47.5	25.4	5.1	8.5	8.5	5.1

percent had never had BCG (bacille Calmette-Guérin) vaccination while 22% did not know or did not report whether they had had BCG. The nurses who had not had a recent tuberculin skin test or previous BCG vaccination may be susceptible to tuberculosis and/or may be a risk to clients or patients if they have undiagnosed tuberculosis. When Burrill, Enarson, Allen and Grzybowski (1985) reviewed the 57 cases of active tuberculosis in female nurses in British Columbia between 1969 and 1979, they found that the rate of tuberculosis among nurses born in Canada was (2:10,000) almost twice that of other women born in Canada (1.2:10,000). They also found that the rate of tuberculosis for nurses born in Asia was (24.8:10,000) less than half that of other women born in Asia (59.5:10,000). Those nurses reporting BCG vaccination in the study of Burrill et al. (1985) had a rate of tuberculosis half that of nurses who had not received the vaccine.

Fourteen percent of the nurses in this study did not know or did not report their immune status with Hepatitis B; 48% reported that they had never had immunization against Hepatitis B. One nurse reported she was a Hepatitis B carrier. Nurses working in an emergency department, laboratory, operating room, or labour and delivery area may be susceptible to this disease if they have not been inoculated.

Comments written on the questionnaires regarding immune status of the nurses included the following remarks:

I am not sure but Health Nurse looks after this.

All required immunization up to date while working in active treatment hospital - left in 1980.

A good reminder! Must check up on my status of immunization. It's probably just over 10 years since I was updated.

#### Perception of Nurse as a Health Role Model for Others

Ten percent of those answering this item (N=58) strongly agreed that as a nurse they considered themselves to be a role model of health for others; 60% agreed; 21% were neutral or had no opinion; and ten percent disagreed; no one strongly disagreed with the statement (see Figure 2). For the purpose of comparison those who strongly agreed were grouped with those who agreed. Frequencies of agreement, disagreement or no opinion varied with characteristics of the sample such as age, marital status, educational preparation and area of work (see Table 13).

When comparing the age differences, it was found that 100% of those age 20-24 years, 60% of those 25-44 years old and 79% of those age 45-64 years old agreed that they were role models of health. Of those age 25-44 years old, 26% were neutral and 14% disagreed. Sixteen percent of those aged 45 and over were neutral and five percent disagreed. Thirty-three percent of the divorced nurses disagreed that

As a nurse I consider myself as a role model of health for others (N=58)

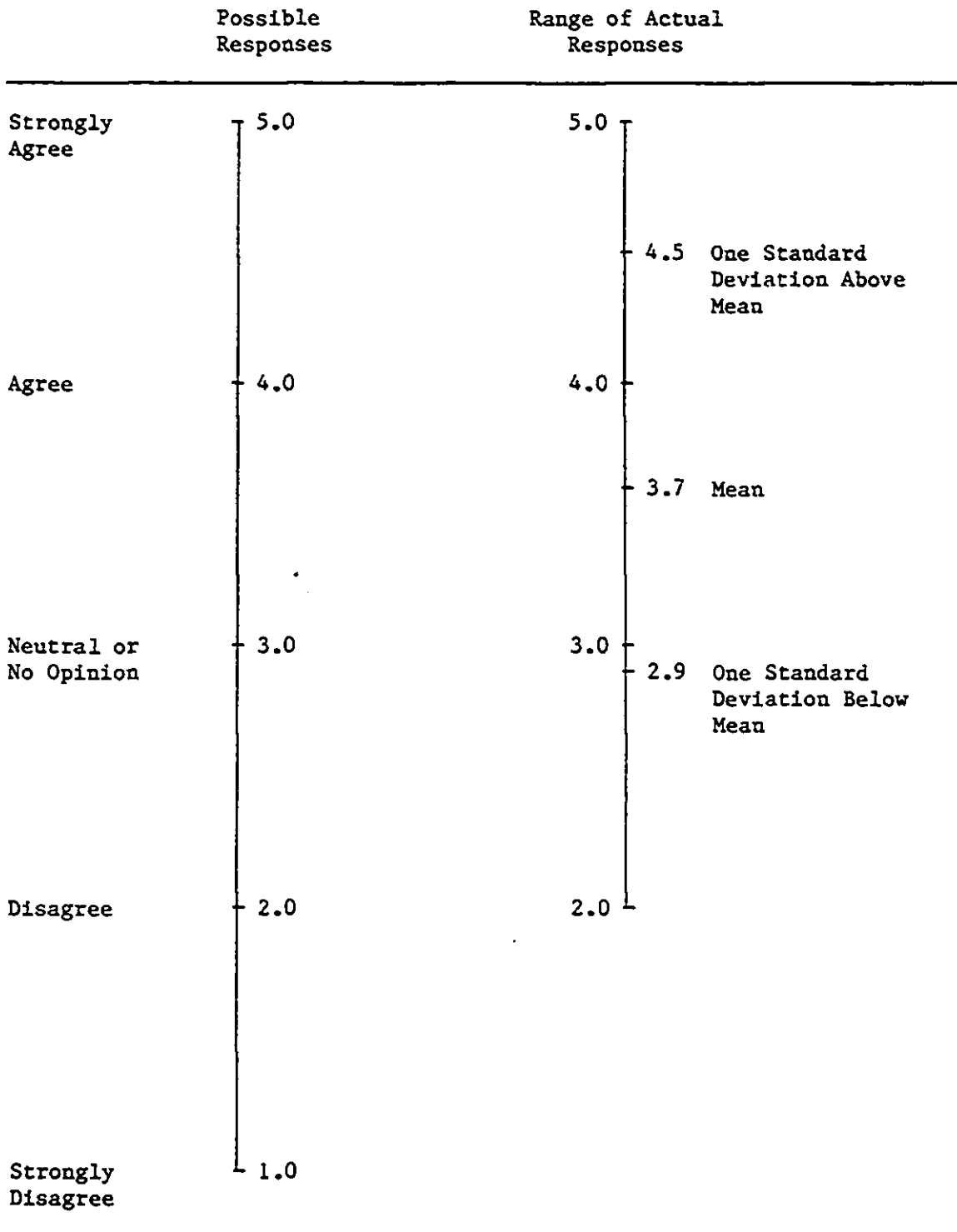


Figure 2. Perception of Self(Nurse) as a Role Model of Health

Table 13  
 Perception of Self as Role Model of Health, by Characteristics  
 and Health Behaviors of Sample

	N=58	Percent of Responses		
		Agree	Neutral or No Opinion	Disagree
Total:	58	69.0	20.7	10.3
Age:				
20-24	4	100	0	0
25-44	35	60.0	25.7	14.3
45-64	19	79.0	15.8	5.2
Education:*				
Nursing Diploma Only	22	63.7	13.6	22.7
Other	36	72.2	25.0	2.8
Employment:				
Hospital	36	63.9	19.4	16.7
Community Health	12	83.3	15.7	0
Teaching Nursing	5	80	20	0
Other	5	60	40	0
Affect Balance Scale Scores:				
Positive	36	75.0	19.4	5.6
Mixed	21	57.1	23.8	19.1
Negative	1	100	0	0
Pap Test:				
<1 year ago	28	64.3	25.0	10.7
1-3 years ago	23	73.9	17.4	8.7
>3 years ago	6	66.6	16.7	16.7
Don't Know	1	100	0	0
Breast Self-examination:				
Monthly	16	62.5	25.0	12.5
Quarterly	26	73.1	19.2	7.7
Less Often	12	66.6	16.7	16.7
Never	4	75	25	0



Table 13 (cont'd)

	N=58	Percent of Responses		
		Agree	Neutral or No Opinion	Disagree
<b>Alcohol Consumption:</b>				
Non-drinker or Occasional Drinker ( $<$ once per month)	14	71.4	21.4	7.2
Current Drinker (at least once per month)	44	68.2	20.4	11.4
<b>Smoking:* (N=57)</b>				
Non-smoker	44	75.0	20.4	4.6
Smoker	13	46.2	23.0	30.8
<b>Seat Belt Use:</b>				
Never/Rarely	24	66.7	20.8	12.5
Most of Time/Always	34	70.6	20.6	8.8
<b>Physical Activity:</b>				
Exerciser (exercises $>$ once per week)	27	81.5	11.1	7.4
Non-exerciser (exercises once/ month or less)	31	58.1	29.0	12.9

\*Chi-square test significant;  $p < .05$ .

they were role models of health for others compared with ten percent or fewer of the nurses with other marital status.

Eighty-four percent of those with bachelor or masters degrees in nursing, 64% of those with a nursing diploma only and 59% of those with other education beyond a nursing diploma agreed that they were role models of health. When a chi-square test was used to assess the relationship between education and perception of self as health role model, the relationship was found to be statistically significant; 83% of those who disagreed with self as role model had a nursing diploma only (see Table 13). Seventy-five percent of those who were neutral or had no opinion and 65% of those who agreed with nurse as a health role model had post-RN education (total chi-square=6.25,  $N=58$ ,  $p=.04$ ). Eighty-three percent of the nurses working in community health, 80% of those teaching, 64% of hospital nurses and 60% of nurses in other areas considered themselves as role models. Seventeen percent of the hospital nurses did not consider themselves as role models; no one in community health, teaching or other positions disagreed that they were health role models. Nineteen percent of those respondents working in hospitals, 17% of community health nurses, 20% of teachers of nursing and forty percent of those in jobs other than hospitals, community health or teaching were neutral or had no opinion.

Perception of self as a role model of health for others varied with scores on the Affect Balance Scale and frequencies of certain lifestyle behaviours (see Table 13). Of the 69% who agreed or strongly agreed that they were role models, 75% had positive affect. There appeared to be no relationship between perception of self as a health role model and time lapse since last pap test or frequency of breast self-examination. There was a higher percentage of those who disagreed with self as an exemplar of health among those who consumed alcoholic beverages at least once a month compared with those who drank less often.

The relationship between smoking and perception of self as role model of health for others was found to be statistically significant (total chi-square=7.81,  $N=57$ ,  $p=.02$ ) Of the 39 participants who agreed that they were role models, 85% were non-smokers and 15% were smokers. The 12 who were neutral or had no opinion concerning their role as a model of health behaviours included 75% non-smokers and 25% smokers. Thirty-three percent of those who disagreed were non-smokers while 67% of those who disagreed were smokers. Those who strongly agreed that they were health role models ( $N=4$ ) were all non-smokers; Aucoin (1986) also found a relationship between role modelling and non-smoking.

Of those who perceived themselves to be health role models, 60% used seat belts most or all of the time. Fifty-five percent of those who agreed, 25% of those who

were neutral or had no opinion and 33% of those who disagreed that they were health role models participated in vigorous physical activity once a week or more; 45% of those who disagreed, 75% of those who were neutral or had no opinion and 67% of those who disagreed exercised once a month or less.

Some of the written comments on the questionnaire related responses of agreement or disagreement with self as a health role model to specific lifestyle behaviours (see Appendix H).

(I agree) in some aspects, but I am overweight, drink alcohol a little more than I should, do not exercise as much as I should.

(I agree but there are) exceptions - smoking habits, eating habits. It's like "Do as I do, not as I suggest".

With poor eating habits due to shift work, being overweight, low physical activity - couldn't possibly be a role model.

#### Interview Data and Interpretations

Ten nurses were selected from 23 nurses who volunteered to participate in the interview component of the study. These participants were chosen to represent a variety of demographic characteristics; an attempt was made to get participants whose responses to the questionnaire represented the extremes and the averages in the areas of emotional well-being and lifestyle preventive health practices and perceptions of self as a health role model.

During approximately 40 minutes of interview these ten women were asked nine open-ended questions regarding health (see Appendix G). The questions were designed to explore the ways in which nurses think about health for themselves and as nurses and health professionals, and to explore the participants' goals for health.

It was assumed that as a group nurses would have a particular interest in health and what constitutes good health. Some of their knowledge about health would have been accumulated through their nursing education and years of experience in nursing. Some of their knowledge about health would have come from their own personal experience, feelings, and knowledge about well-being. Open-ended questions were used in order to provide an opportunity for the nurses to express their understanding of the complex, interactional aspects of health.

Interviews were tape-recorded, then transcribed by the researcher. All interviews were read and reread; then, verbatim responses were categorized according to themes. Fragments of the interviews were chosen which represented common themes or strong wording. To maintain anonymity of the participants, names have been omitted and replaced with a generic term in brackets. An attempt has been made to preserve the individuals' complete thought on a topic; ellipsis points have been used to indicate an omitted portion of the interview; two hyphens have been used to

denote silence in the interview. Detailed responses as well as overall themes in the responses provide a flavour of the participants' language, personal values and specific activities associated with health. In a very real sense each of the ten nurses became a translator as she endeavoured to unravel the word "health" in the context of the questions. This section reports on how each of the nine questions was answered. A variety of responses have been included to provide a sample of the data. From the responses to the questions, three themes have been chosen for further exploration and interpretation: maintenance of health as a goal, perceived lack of nurses' self-care and nurses' expectations of themselves.

Question 1: What does health mean to you personally?

To this question the responders provided variations of particular themes which were woven into a rich array. One of the first focuses that became apparent was the struggling for a reply.

That's a very tricky question to answer (001, p. 1).

What does health mean to me? Well, that's interesting. Um--I guess I should use the old standby, absence of--um--disease--uh--state (004, p. 1).

Good health means good health, healthy, happy, go free, or something like that (024, p. 1).

One wonders if these nurses had not thought about the definition of health, the personal meaning of health, or if

they had not shared their day-to-day experiences of dealing with their own and other people's health. It is possible that in this situation where they were the focus of the interview with the possibility of being heard they were struggling with the question rather than giving a quick answer. Another alternative may be that individuals have struggled with the concept of health and illness but the lack of power and continued deaf-ear from significant others have socialized these women nurses into silence.

--If you feel in or out of sorts, or something like that, then we're always grumbling and growling.... Nobody listens to us half the time (024, p. 2).

Another focus of the responses was the focus on health as the ability to do things, accomplish tasks. There seemed to be an objective, observable action, but also an inner knowing that one was capable of action.

(Health) means being able to function physically and mentally and coping with any situations (019, p. 1).

...Being capable of doing things, knowing within yourself that you can do things (018, p. 1).

A social dimension included in the participants' explanations of health was revealed through examples of other people; sometimes a general, all inclusive term was used, such as "others" or "most people"; other times specific individuals were named, such as "people I work with", "my family" or "my mother". Use of words such as "spectrum" and "scope" seemed to denote health as both an

individual matter and an individual concern within a broader social context.

--I mean I see health really as a kind of spectrum, um, that you can put yourself on.... Even if I've got a cold I feel unhealthy. Although I know that on the spectrum, if I look at it, I'm somewhere around the top... (001, p. 2).

--I guess I would see health as, as being, varying in, in, um scope; you don't have to be super, super healthy at one end of it and then to be bedridden on the other end of it.... Some, some will say, "Oh, I'm not healthy unless I'm really active, involved and feeling super", and others so long as they're not bedridden, they would say, "Yeh, yeh, I'm healthy" (004, p. 1).

It is difficult to know to what degree the words "scope" or "spectrum" were referring to one individual's degree of health or to a collective continuum of health. Perhaps even the location on the continuum of one's own health could affect relational aspects of health.

Everybody is an individual and we all have our own levels of health and health is on a spectrum. (If I were a paraplegic I might say,) "Because I'm a paraplegic don't make me--don't block me out. I have a level of health too as an individual" (025, p. 3).

Question 2: When you describe yourself in good health, how do you describe yourself?

Responses to this question were frequently phrased in a way to suggest a quality of something being absent. This observation had been noted in the replies to the first question, but now became more obvious. Lack of limitations, illnesses and habits which might be considered unhealthy



were cited as descriptions of the individual participants' good health.

--It just means that I don't have any other limitations than with age and so on--(I) don't have any, any illnesses that make me hurt, that make me where I have to lay down, take medication or anything like that (018, p. 1-2).

I look at (good health) in the sense of not being with problems, physical problems, not being with mental problems (019, p. 1).

--(I have) no health problems--d.n't take any medications, no drugs, don't smoke-- (021, p. 25).

One nurse was particularly aware that good health for her involved a lack of symptoms.

--a lack of symptomatology--I guess (health is) a negative rather than a positive--as long as I don't have a headache, I don't have achy joints--. What would be a positive? Isn't that interesting, I can't come up with a positive statement; it's more a lack, a negative sort of statement. As long as these negative things don't exist, then I consider myself healthy for the moment (004, p. 2).

Some of the participants seemed to focus consciousness and energy on the day-to-day activities and forget health until the loss of health and presence of illness prevented the pursuit of activities related to job and family.

(I) don't even think about (health) as long as I'm feeling well (004, p. 2).

(Health) is something that I just take for granted; and it isn't something I work at (009, p. 2).

Question 3: In what areas do you feel you are not in good health?

The responses of four of the ten women were directed toward some concern about weight. Sometimes a specific amount of weight was targeted for weight loss.

Oh, I'd like to lose about 50 pounds--been working on that for a long time-- (024, p. 6).

...I'm carrying around about 20 to 25 pounds extra weight--. Other than my weight I think I'm in relatively good health (010, p. 1,3).

The question arose as to whether the participants perceived weight as a women's issue.

I think it's a feminine issue; but, I think it's becoming a male issue... (004, p. 7).

Generally I think women are more concerned about it than men are (018, p. 3).

Although these women considered themselves overweight they did not seem to perceive that their weight had negative personal effects on their health.

Probably (my weight) hasn't (affected my health) as yet. It's, it's the type of thing you read about where it could affect the future as far as diabetes and high blood pressure and so on. So far, I haven't had any real sign of that (018, p. 2).

In fact one nurse seemed to associate her size not only with her physical description, but also with her enjoyment in life.

Um, how would I describe myself? Big and fat, joyful, ah, content with my whole life, content with my work, content with my co-workers (024, p. 2).

For one nurse eating, which contributed to her being overweight, was a way of coping as well as an indication of her general well-being.

When I get feeling down I eat more, that's a pattern I've had for many years, only now it's catching up with me. So I can always tell when I'm feeling down, if I'm feeling unmotivated, if I'm feeling depressed, if I'm feeling goal-less...(004, p. 7).

Some of the participants suggested they were not as healthy as they might be because of a lack of exercise.

There's nothing wrong with me except that I'm not doing enough exercise now... (001, p. 3).

...My job is sedentary...and I know that I don't exercise enough, so therefore I must be not well, not healthy... (004, p. 3,4).

Two nurses suggested that regular exercise was associated with well-being for them.

I didn't deal well with stress when I--for a while there, but that's why I say I exercise now (030, p. 2).

If I'm really down, the best thing I can possibly do is go for a swim... (001, p. 4).

In another situation the good feeling from exercise was outweighed by other considerations.

(Going to an exercise activity) was so much hassle, getting away from the family, getting supper over with, getting out, and going and doing that. It wasn't relaxing; it felt good physically 'cause I really was getting into shape, but it was, it was not that good emotionally because I felt like I was leaving (the children) and I didn't really see them all day because I was working (009, p. 4).

Question 4: What are your personal goals for your future health?

The responses to this question were closely linked to Question 5: What are you doing now to reach your personal goals? Throughout the replies to the two questions, several of the nurses wove the goal of maintaining their present state of health with specific activities related to this goal. Eight of the ten nurses mentioned maintenance of health as a goal. Several used the word "maintain"; others used terms such as "stay healthy" or "keep my weight down".

--Well I want to stay as physically healthy as I am--um--at the moment.... Getting rid of the effects, those ill effects of stress...I use other people as sounding boards, as supports (001, p. 6).

(I want) to maintain (my health) as much as possible. I think I--if there is anything wrong I go to the doctor and check it out...I try to eat well, change my eating habits when I don't (030, p. 5).

...Generally the goal is to maintain health so that I'm able to keep doing things that I've been doing (like sports) (018, p. 2,3).

Maintenance of health as a present and future goal for health will be discussed in the interpretation of interview data at a later time.

Question 6: How do you plan to reach your personal goals for health in the future?

Exercise continued to be emphasized by some of the participants as an activity related to the achievement of health goals.

Well, I, I would, I keeping telling myself I should get involved in an exercise program, but I haven't so far done it. ...But when you're working full time, it's easy to put it off...you don't really think that you have the energy to go to an exercise class (021, p. 8).

Every summer I tend to lose a lot of weight because I am outdoors a lot, you know, a lot of the time...we're hiking...going for walks...fishing...I come back and I've probably lost about 10 to 15 pounds just doing that (010, p. 5).

(Besides dealing with stress) I really want to exercise more, that's the whole thing what I really want to do (001, p. 10).

Methods of maintaining health were closely linked by participants with their present and future health goals.

I have to have a certain amount of sleep and then I like to exercise. I go for walks all the time and I go away, have a holiday...have an evening off. Or I'll go to the doctor every so often if I need to, but only if I need to, you know. (030, p. 5).

Thinking of what other future things I'm going to do, one of the things I get really conscious of, when (under much stress) I lost my appetite and lost all that weight at the same time, is the fact that I do need to eat, and now I consciously eat. And I intend to continue that as a kind of maintenance (001, p. 10).

Other individuals suggested that they would change their goals and activities if they began to experience serious health problems.

What would make me (change my activities)? Well, I suppose if I, I did start having some problems because I wasn't eating, say if I did get sick, I might decide, well I'd better change my eating habits (021, p. 8).

One nurse seemed to echo the initial association of health with absence of symptoms or illness in sharing her future goals for health.

(I want) just not to have problems (with menopause). ...I don't expect to have any.... I'll just wait and see what happens, but I certainly don't want to have problems because I haven't got time to have problems (021, p. 7,8).

Health as a future goal for some responders did not have a focus of its own but was an enabling component of future activities.

It isn't sort of a focus, it's a--I certainly have plans for activities and so on, what I'm going to do. And, probably one of my goals is to retire, to travel, so on; so health is a necessary component of being able to enjoy that, so that health for its own sake is not a particular goal. It's health for me, so I can enjoy the activities (018, p. 5)

Question 7: Are there any barriers to reaching your personal health goals? Would you please describe these.

Several of the nurse participants suggested that personal characteristics inhibited their ability to achieve personal health goals.

Motivating myself...if you set a goal and then decide you're going to go about achieving it, that's simply all there is to it; and, I just haven't become serious enough about it to, to set a definite goal (021, p. 10).

(Any barrier is) only inside me--only my own feelings that it's more useful for me to stay at my desk at lunch time than it is to walk to the pool (001, p. 11).

If there's any barriers it's probably within myself with the smoking (025, p. 11).

Time--motivation--incentive...if I was really out of shape, maybe I would be more motivated. But I don't really think I'm that bad really (009, p. 6).

Occasionally social influences were identified as a barriers to the attainment of health goals.

(Some barriers involve) people around me because those people around me are so important to my health. I have no control of the people around me (001, p. 11)

Maybe my social smoking is one (of the barriers). I know it's not good for me but I still enjoy it so I do it on occasion (019, p. 9)

Lack of a previous--I was going to say role model but that's not really what I want--previous life pattern, exercise. I have never, right from adolescence on, I guess I've not been athletic. So because I didn't have that established in my adulthood, regular exercise, I don't have that to fall back on (004, p. 9).

Question 8: What do you consider is the greatest concern for nurses' health?

Discussion of the responses to this question was combined with the responders' final comments in the interview. Several responses focused on caring for others and possible neglect of self; this theme will be dealt with at greater length in a later section.

(Nurses) don't look after their emotional health as well as they should...; they seem to look after everyone else's, mind you (010, p. 20,21).

Some of the specific concerns expressed for nurses' health related to smoking, shift-work and stress. Smoking was considered as a threat to health by a nurse who had a adverse reaction to smoke and by another nurse because of the possibility of smokers' developing smoking-related illnesses. One nurse thought that smoking was a symptom that nurses were unconcerned about their health; another believed smoking showed that nurses did not feel good about themselves. One believed that smoking (like alcohol and drugs) was a method used by nurses to reduce stress.

Shift work, particularly 12-hour shifts, switching of shifts and the resulting disruption of family routine, was considered a strain on nurses as individuals and as wives and mothers. Twelve hour shifts were considered by one nurse as detrimental not only to nurses' health but also to quality of patient care, and therefore, detrimental to nurses' satisfaction with their patient care. The lack of research into the stress of shift work and its effects on patient care was considered by two nurses as a serious omission and perhaps symptomatic that nurses do not feel good about themselves.

Stress and burnout as particular concerns of nurses were mentioned by several of those who were interviewed. Lack of job satisfaction, lack of support, heavy work load and excess paperwork were cited as sources of stress.



I think nurses burn out quite fast; they need more support somehow. There isn't much job satisfaction. Like we're so caught up in things like quality assurance and paper work...we forget there's a patient over there, we haven't got any time for nursing care (009, p. 18).

We start feeling good about ourselves, about what we're doing--and then become more assertive, we then get stomped on. We get singled out as being assertive and what not, which then starts a negative cycle, which I think then results in feelings of stress and strain (004, p. 13).

#### Interpretation of Interview Data

Three themes have been chosen from the interviews for further discussion and interpretation: maintenance of health as a goal, lack of self-care by nurses and the expectations of the participants for themselves as nurses. In the interviews, maintenance of health appeared to be a goal frequently expressed for the present and for the future.

The Goal of Maintaining Health. Maintenance of health seemed to be the continuing of function at the present level without loss of perception and without limitation. Individuals wanted to continue jobs and caring for families or to retire and travel depending on their age and potential number of work-years. One mentioned her vision was "fine"; another said that her legs were "good" and that she was "in good shape". For those who felt there were health problems, the health problem almost seemed to be put to one side for day-to-day existence, then brought into focus when it presented a concern. Whether the problem was minor or more

serious, the individual gave the impression that all was under control; anything that needed to be done would be done if the need arose. In some ways each of the participants seemed to have a well of strength and hope; on the other hand, it was difficult to know how full or empty the well was.

One participant diagnosed with a debilitating disease continued to work full time; her goal was to maintain her health in order to support her children until they were independent. Her definition of health was the ability to "function physically and mentally and coping with any situations". After describing family and other social supports and sharing her goals of maintaining her diet and getting enough rest, she described her attitude to her recent diagnosis.

I really try not to think about it. I try to live my life the best I can for the way I feel today. Tomorrow if I end up in a wheel chair then I'll just have to make the best of it at that time.... I was brought up to believe in God (who) is there to help you and (who) will make the best of the situation and (God) expects you to do the same.... There is no point in fighting it. I can't overpower God and he's done this to me for a reason so I have to accept it and make the best of it (019, p. 10).

Her definition of health as "coping with any situations" took on a ring of dealing with her life in a somewhat stoic way; her goal of seeing her children educated and independent may help her maintain her health and help her to "cope".

One nurse who had had repeat surgery for breast cancer expressed her goals for health in the following manner:

(My goal is) to keep as happy and healthy, just the same as I'm doing right now, keep on going. I'd like to travel more...keep on working; I don't want any more surgery if I can get away with it (024, p. 10).

Throughout her treatment and consequent side-effects she had continued to work with the support of her family and co-workers. She believed that good health was related to happiness which involved a feeling of contentedness, enjoyment and humour.

...You've got worries at home, leave them at home and don't bring them to work with you. You should be joyful and happy and try to make your patients that way too, and laughter is one of the best medicines going (024, p. 1).

One participant in her thirties suggested that she could almost predict cardiac palpitations as they seemed to accompany specific stresses. She predicted a move to a location with increased social support would reduce her symptom of stress. However, she recognized that she wanted to maintain the challenge that accompanied putting herself under pressure. At this point she did not seem to be able to regulate the amount of stress so that she would be motivated to work without the "scary" feeling of cardiac palpitations. One wonders how realistic are her expectations that she can decrease her physical effects of stress yet maintain the psychological effects of stress.

Another participant who had experienced shortness of breath on climbing stairs had not had this symptom since she began to take the elevator on the way up and the stairs on the way down. She recognized that she was not motivated to begin regular vigorous physical exercise and lose weight, but said she would be "very pleased" to maintain her present state of health for the next 20 years. Similar to two other nurses who were interviewed, this nurse felt that if something "really scared" her, her level of motivation would increase and therefore her lifestyle might change. This fear of illness appeared to be a factor in other participants' expression of maintenance of health as a goal.

Everywhere, you know, everywhere there's all this cancer and in our family, too... (030, p. 5).

No--no--(there are no ways in which I'm not in good health), now watch me drop, walk out of here and get deathly ill (laughs) (021, p. 6).

I said to (person),"...These shortness of breath spells...I'm not sure they, they went away of themselves or whether I'm protecting myself from doing the things that caused it".... I have not really put it to the test; I'm afraid to because it's such a scary sensation (004, p. 5)

However, the fear of illness and symptoms were not sufficient at that particular time to cause a change in her behaviour.

...I'm thinking about buying a cycle, but I'm procrastinating (laughs).... If I--experienced a reoccurrence of the shortness of breath periods--um--to the point where I passed out..., but if they kept on occurring and it was high blood pressure, or something that really scared me and if I

said, "Hey, you're in the beginning stages of a--a--of a disease process," that would motivate me (004, p. 5,6)

In a study of smokers (Nevin, Lynch, Kropf & Lamb, 1987), life-threatening experiences such as a heart attack or bypass surgery did not generally influence smokers to quit smoking and maintain cessation of smoking.

Maintenance of health at the present level was a goal expressed for the future.

Just maintain it (my health) as well as I can (030, p. 5).

Maintain it as long as I can. Yes, well since I've had this recent diagnosis (chronic illness) I am careful about getting overtired. I probably am more conscious about proper diet...(019, p. 6).

Each nurse seemed to be very involved in her job and in her family life, similar to any working woman with a family. However, there was a feeling expressed that nursing demanded more than an average job. The "more" related to caring for people in need, the responsibility felt by the nurses and the added stress of the peculiar work situation, such as shift work, emergencies, being on call, and actual or threatened budget cuts.

Nurses' Lack of Self-care. Participants attributed nurses' lack of self-care to several reasons. One factor given was nurses' lack of self-esteem.

(Nurses) are not feeling good about themselves, in hospitals, in health units, in universities, you name it. It's very hard to feel healthy when you're not feeling good about yourself, and I sense that that's happening in the profession.... It feels intuitively

to me that self-esteem and lifestyle go together in a cyclical way.... (Nurses) think everyone else is so deserving, but don't look after themselves (010, p. 15).

Another factor involved with nurses' lack of self-care was identified with nurses' want of a care-giver or structure that promoted self-care.

...Nobody's saying to nurses we care about your health. So it's hard for nurses to say, "O.K., I'll care about my health too".... It ought to be written into somebody's job description "Care about the nurses" (001, p. 13).

...If you complain that you're really feeling bogged down, overwhelmed...you're made to feel that there's something wrong with you, like it's your fault (010, p. 16).

They don't allow mental health days.... We wanted to know if we can have regular X-rays for tuberculosis...but none of that stuff is done. There's nobody--because we often talk about the fact that nobody really cares for (nurses') health anymore. With Aids we have to learn to protect ourselves (030, p. 11).

Nurses' time and energy were seen by participants as focused on families and patient care so there was little left over for the nurses themselves.

I don't think nurses in general think about their health that much...; they're more concerned with working and keeping the family together (004, p. 11).

(Child-care) is a big problem. Actually, being on call is another big stress. If you were just by yourself or young and single, or old and single, it really wouldn't matter (009, p. 10).

(Nurses) are expected to work eight hours, 12 hours...give their best and support people that need support in that whole time.... Eighty or 90% of these nurses are mothers, wives, that have to come home and continue to give support at home. It's a

never-ending strain...it's forever drawing on that person.

Rather than involvement in patient care resulting in lack of self-care, one nurse suggested that lack of self-care resulted in poor patient care.

...I think I have received the brunt of many nurses' inability to look after themselves when I've been a patient, short-tempered, quick busy-ness--"Don't ask too many questions, I've got my job to do", because they're maybe too reluctant to say things that get them involved (010, p. 21).

Closely tied in with nurses' caring for others such as families and patients rather than caring for themselves was the underlying aspect that all of these nurses were women.

...I think women (and) nursing have tended to always care for others, nurture others--think everyone else is so deserving, but don't look after themselves (010, p. 15).

Ninety-eight percent of (nurses) are women, so they don't even get (caring) at work, they don't get it at home either, because they're basically being mothers and--mothers are notoriously bad for looking after themselves, they look after everybody else (001, p. 14).

One participant suggested that the self-care of women who are nurses may be motivated by external sources.

...Somewhere along the line (as women) we are given a message about having healthy bodies and I think it's more from a cosmetic point of view and pressures by the males of the species and advertising and so on.... Our self esteem has to come from how attractive we are to the male species, how supportive and caring and nurturing we are to our families...how well we're able to fit into the health care system mold--make other people in the system feel good about what we do. Somewhere in the middle of all that who we actually are and how we actually feel about ourselves gets lost (004, p. 13).

Expectations of the Nurses for Themselves. Several of those nurses who were interviewed expressed high expectations of themselves as if they had a goal to be an ideal nurse.

...We're very reluctant to show that perhaps we don't measure up or we just can't handle it, because that must be a sign we're not strong enough. We're supposed to be an example, like we have to be perfect in everyone else's eyes and it's ridiculous because we're not (perfect) and can't be perfect (010, p. 17).

If we believe in what we're doing I think the role that we portray is very important. It would be like me with a cigarette hanging out of my mouth telling someone that smoking is not good for them.... It goes to dieting, nutrition, exercise; it goes to everything you're talking about because even in patient teaching you can't teach someone to do something that you don't believe in (025, p. 14, 15).

...Trying to do everything that you think you should be doing is probably a stress that you lay on yourself.... It's just grown over time that you should be able to solve everybody's problems...you can get the feeling within yourself that you should be able to do everything and be everything to everybody and it just isn't possible, so you have to learn to cope with that-- (018, p. 7,8).

(Regarding) smoking, I think (nurses) should be looking at themselves to be influencing the public.... Even though there's a smoking section...I don't think you should see any nurses smoking.... And I think it's really sad when you see obese nurses.... We had one nurse with us that was quite mentally unstable; thank goodness she got out and did something else (009, p. 17).

I really try (to keep up with new drugs, their purposes and side-effects)--I may not always have time, right at that time to see why I'm giving that drug but I will make a point of looking it up when I do have time. I do try (019, p. 17).



Nurses seemed to be saying that there are high expectations for nurses coming from themselves and other nurses; the tension may come from the profession's struggle to have a more autonomous role in health care and the authority that goes with the responsibility historically given to nurses for health care. Barratt (1986, p. 10) suggests that the nurse is "an active, self-directed, self-responsible, educated practitioner" who has been portrayed as an altruistic or romantic care-giver or order-processor. Baxter (1986) sees nurses as free decision makers with specialized knowledge who have traditionally had a supportive role to the physician, but are now striving for recognition as autonomous professionals who work cooperatively with other health care professionals. Barratt states that nurses' numbers could give them power; however, they tend to express their concerns and ideas in private rather in situations that would give them a voice. Barratt's first step would be to increase nurses' awareness, to raise their consciousness by beginning discussions among nurses in a recognized way and basically to convince nurses of their worth.

It is possible that these nurses believed that they have a duty to be a health role model; Curtin (1986, p. 7-8) describes herself as a reluctant role model:

One must not drink alcohol and coffee or smoke...or eat much red meat.... One should work, but not too much or too little. One should marry (neither too

young or too old), have children (neither too many nor too few)...exercise regularly...avoid noise, crowds, white bread and white sugar....

Inspite of Curtin's reluctance she continues to describe herself as a nurse as a health role model.

...One can model healthful behaviours provided that one is not too obvious or too arrogant or self-righteous. Otherwise, however well-intentioned your attempts to Set a Good Example for the less-disciplined, they will be repudiated.... Zeal is very close to bigotry. Worthwhile changes are accomplished with compassion, not passion....

## Chapter V

### Discussion of the Findings, Implications and Recommendations for Further Research

The following section includes a summary and discussion of the major findings of the study. Implications for further research are also presented.

#### Major Findings

A questionnaire was used to assess the subjective well-being, lifestyle or preventive health practices and the degree to which a group of nurses perceived themselves to be role models of health. This questionnaire consisted of items taken from the Canada Health Survey (CHS; Health & Welfare Canada, 1981) and from Godin et al. (1985), items adapted from the Canada Health Survey and items designed by the researcher.

#### Subjective Well-being

It was concluded from the frequencies and percentages of responses on the questionnaire that the group of 59 Registered Nurses appeared to have a high degree of emotional health. Those who were single or married, had post-RN nursing education, taught nursing, worked a long

work week and lived in the country or a town had the highest percentages of positive Affect Balance Scale scores. The highest percentages of individuals with mixed or neutral Affect Balance Scale (ABS) scores reported their marital status as separated, widowed or common law; had post-RN education in non-nursing areas; were employed in areas other than hospital, community health or teaching; worked 30-39 hours per week and lived in an urban area. Only one individual had a negative Affect Balance Scale score and only one individual reported frequent symptoms of anxiety and depression as measured by the Health Opinion Survey (HOS). The percentages of nurses with positive Affect Balance Scale scores and infrequent symptoms of anxiety and depression were generally higher than comparable groups in the Canada Health Survey.

Dowell and Praught (1985) have stated that the ABS and the HOS assess primarily short-term emotional state with the ABS reflecting positive well-being and mild levels of distress. Participants' written comments after the ABS also reflected short-term factors affecting emotional health, such as a vacation or menstrual cycle. However, other long-term factors were also identified by the nurse participants, such as divorce or stressful job. Dowell and Praught (1985) consider that the HOS screens for non-specific emotional distress and that it has a physical bias. Items checked on the HOS as well as written comments

by the nurses under the HOS revealed sleep and rest were particular concerns of these nurses; Dowell and Praught (1985) consider that the HOS is somewhat successful in distinguishing insomnia as an emotional disorder. The nurses in this study related distress about sleeping and lack of a feeling of restfulness with a particular problem, or particular concerns associated with shift work, including night shift, 12 hour shifts and being on call. There may be a need for further research in the area of the effects of shift work on nurses' health and on patient care.

The inclusion of items on positive feelings in the ABS has been suggested by Dowell and Praught (1985) as helpful in identifying healthy respondents. The Positive Affect Scale items marked most frequently by the participants involved a feeling of excitement or interest in something and a feeling of pride after a compliment was received on a personal accomplishment. Further research could pursue participants' experiences of emotional health.

#### Pap Test

Although the percentages of nurses who had had a pap smear test at some time was considerably greater than the Canada Health Survey sample, the percentage who had had a recent pap smear test was smaller than in the national sample. Generally the results reflected the CHS findings that frequency of pap tests declined with age although the

importance of pap tests has been emphasized for older women (Cervical cancer screening programs: The Walton Report, 1976, cited in Health & Welfare Canada, 1981, p.167).

#### Breast Self-examination

Almost three-quarters of the nurses practiced monthly or quarterly breast self-examination (BSE) and only seven percent never practiced BSE; these results compare favourably with the 1981 Canadian results. However, compared with a sample of women in Edmonton (Macdonald & Kurji, 1986), fewer of the nurses reported practicing monthly BSE or reported a pap test in the previous year. Further investigation may discover factors relating to frequency of pap tests and BSE, such as perceived benefits, perceived barriers and self-concept (Rutledge, 1987). Perhaps educational level could be explored as a contributing factor as further educational preparation was discovered as relating to frequency of BSE in both this study of nurses and that of women in the Canada Health Survey.

#### Alcohol Consumption

All of the 59 participants in this study reported consumption of alcoholic beverages with three-quarters of the total reporting consumption of liquor at least once a month. Although this study reported that a greater percentage of nurses drank than women in the 1981 national

sample, the differences were not statistically significant. Only further research would answer questions such as, "Do more nurses than a 1987 national sample of women consume alcoholic beverages?", "Have more women begun to drink alcoholic beverages?", or "Has it become more acceptable for women and/or nurses to admit liquor consumption?"

#### Cigarette Smoking

Three-quarters of the nurses in this study reported that they do not smoke. Of those who smoke, half smoke up to one half package of cigarettes daily, and half smoke up to one package daily. The greater number of non-smokers in this present study of nurses is statistically significant when compared with the number in the CHS results. This may indicate a reduction in the number of women who smoke as suggested by a study of Edmonton women (Macdonald & Kurji, 1986).

#### Seat Belt Use

Sixty percent of the nurses used their seat belts most or all of the time; this high percentage may reflect a change in attitude to driving safety or impending legislation in Alberta requiring seat belt use. Area of employment and seat belt use were found to be statistically significant with fewer nurses in hospitals and more nurses in other areas wearing seat belts.

### Physical Activity

Only 12% of the nurses in this study reported participating in vigorous leisure time physical activity more than twice a week; this percentage seems particularly low. Further research could compare a group of nurses with a comparable group of women in the same geographical area to explore factors which were found relevant to frequency of exercise in this study, such as age, education, length of work week and area of employment. Comments in the interviews suggested that irregular and long working hours as well as family responsibilities may contribute to lack of physical activity. The results of this study may imply the need for the development of on-the-job exercise programs and facilities for nurses, particularly those who work in hospitals.

### Immune Status

This study was exploratory in the area of immune status as there are no recent statistics on the immunization or immune status of the adult population in Alberta (A. Hanrahan, personal communication, January 29, 1987). Immunization reported by this group of nurses may suggest that they have had a primary series of immunization against diphtheria, tetanus and poliomyelitis; those who may be at risk are participants who have not received a tetanus or polio booster in the past ten years. Nurses of



child-bearing age who have not received rubella immunization and who have not had a rubella titre test may be at risk in developing rubella which may cause birth defects. Those who have not had a recent tuberculin skin test and have not received BCG vaccination against tuberculosis may be susceptible to tuberculosis or have undiagnosed tuberculosis. Individuals who are working in areas of possible exposure to blood and who have not had Hepatitis B vaccination may be at risk of developing this disease.

Further research into nurses' immune status could be pursued by taking blood samples similar to the CHS methods. Although employers in hospitals appear to be concerned about nurses' immune status relating to tuberculosis, hospital officials as well as employers in other areas and the nurses themselves may need to be more concerned about nurses' immune status relating to communicable disease in order to protect the health of patients or clients as well as the health of nurses themselves.

#### Perception of Nurses as Role Models of Health

The majority of the nurse participants considered themselves to be role models of health for others; they tended to be 20-24 years old or 45 and over; have educational preparation beyond a nursing diploma, work in community health or teaching (of nursing) and have a positive Affect Balance Scale score. They also tended to

consume alcoholic beverages once a month or more, use their seat belts and exercise. The relationship of perception of self as a health role model with abstinence from smoking was positive as a higher percentage of those who agreed they were exemplars of health behaviours were non-smokers. The number of those who considered themselves as health role models and the number with post-RN education was statistically significant.

Norman (1985) found in two studies of student populations that health behaviours, such as smoking, exercise and alcohol consumption, were largely independent of one another; Norman has stated (1986) that health beliefs have limited importance in determining health behaviours and he calls for creative approaches to health education and health promotion. In this study of nurses' health, perception of self as a role model of belief was related to frequency of exercise, consumption of alcohol beverages, smoking and educational preparation; since the literature supports the position that role modelling will occur, further research could explore and attempt to answer questions such as: Who are nurses' role models? Do others perceive nurses as role models of health behaviours? How do perception of self as a health role model and health behaviours interact with each other? Is perception of self as a role model related to social support which Norman

(1986) has suggested may be a reward for positive health behaviour?

#### Goals for Health

This research was an exploratory study of nurses' goals for health; there has been little research in the area of goal-setting outside of a laboratory setting (Locke, 1966; Locke & Bryan, 1966, 1968, cited in Alexy, 1985). The main goals of the ten nurses who were interviewed related to maintenance of their health, nurse's apparent lack of self-care and balancing their perception of themselves as health role models with realistic expectations. These nurses' primary goal for their health was to be able to continue functioning at their present capacity with their family and job responsibilities. The participants were all women who had a great deal of responsibility in their jobs relating to the health care of others and in other roles such as wives, mothers, children of aging parents, and volunteers of community organizations. Generally these nurses considered health activities as means of maintaining (rather than improving or promoting) health. Generally individuals agreed that they would not change their activities unless a serious threat to health occurred. However, two nurses who had experienced "scary" symptoms had only somewhat successfully decreased their symptoms; one did this by exercise and increase of social support; the other

by avoiding climbing stairs. Others expressed goals, such as decreasing smoking or coping with shift work and stress; however, these goals seemed to be secondary to the participants' primary goal of maintaining their health. Similar to the majority of those interviewed, individuals who had health problems seemed to want to maintain their health in order to carry on their job and family responsibilities.

Several of the nurses who were interviewed seemed to consider that nurses do not adequately care for themselves. Participants considered nurses' energies as directed toward patient care and family care with little left over for themselves. Some nurses related this lack of self-care to the traditional role of women as care-givers, and to nurses as care-givers; the combination seemed to be overwhelming. Nursing and caring have historically been identified as women's work and duty (Reverby, 1987)

Several of the interviewed participants seemed to have high expectations for themselves and other nurses; they spoke of measuring up, practicing what one is preaching, trying to do everything and trying to keep up with changes. Although there was recognition by some that nurses are not perfect, they still seemed to have some expectations for themselves as nurses to try to be perfect or "everything to everybody."

The goal of maintaining health at the present level was stated as a personalized concern rather than as a concern of nurses or women. However, some interviewed participants considered high expectations and lack of self-care as concerns of nurses and possibly as a concern of women. One can speculate that the goal of maintaining health may also originate from social expectations internalized as a personal goal; however, only further research would be able to unravel the interrelationships of personal goals and social expectations.

Relationship Between Participants' Perceived Health as Measured by Questionnaires and Participants' Goals for Health as Assessed Through Interviews

It is difficult to relate the participants' subjective well-being and health practices with goals for health as the type of data obtained from questionnaires and interviews differed greatly. The relatively high scores of positive feelings (on the Affect Balance Scale) and the participants' practice of health measures at rates similar to a national sample (Health & Welfare Canada, 1981) appear to be congruent with the frequently expressed goal of maintaining health. Because these nurses concentrate their time, energy and resources on their jobs and families, they seemed to believe there was little left over for themselves. Possibly if there was anything left over it might be expended in

further care-giving to others because of their high expectations for themselves. Perhaps reported low frequencies of physical activity on the questionnaire was related to participants' lack of self-care, as involvement in an exercise program was described by some individuals as a possible but not probable activity to pursue in order to maintain health. In the future, workshops, courses and research which allow and encourage nurses to talk, not about illness and disease, but about the meaning of health, their own health behaviours and their own goals for health could provide an opportunity for reflection and dialogue; talking within the nursing profession about the meaning of health could be the basis for further development of nursing as focused on health not illness and nurses as professionals involved in health promotion.

## Chapter VI

### Conclusion

Although promotion of health and healthy lifestyles are accepted tasks of Registered Nurses the assessment of nurses' own health and health behaviors has rarely been addressed. In this study questionnaires were mailed to a random sample of 100 female Registered Nurses employed full-time in south-west Alberta; 69 responses were received. The responses of 59 RN's to the questionnaire on subjective well-being, specific health practices and perception of self as a role model of health were analyzed. The nurses' scores on the Affect Balance Scale and Health Opinion Survey place them toward the positive end of a positive-negative continuum of subjective well-being, or self-perceived affective experience (Okun et al., 1984, p.114). Comparison of the participants' responses regarding lifestyle preventive practices with the 1981 Canada Health Survey results suggests that these nurses have relatively adequate health practices, but they follow the national trend of decreasing frequency of pap test and breast self-examination with increasing age. The number of nurses who did not smoke was particularly significant. The number of nurses who drank alcoholic beverages was relatively high. The majority

of nurses used seat belts. The exception to adequate health practices may be the low percentage of nurses who participated in vigorous physical activity. Although the relationship of improvement in fitness rating and decrease in health care utilization has not been shown to be statistically significant (Shephard, Corey, Renzland & Cox, 1983), involvement in an exercise program, particularly if long-term (Stones, Kozma & Stones, 1987), may contribute toward perception of well-being. Perhaps an educational program for nurses could incorporate physical activity, maintenance of health as a personal goal and perception of self as a health role model. Individuals' responses on the questionnaires and in the interviews suggested that the majority saw themselves as role models of health for others, although perhaps imperfect and reluctant role models.

In interpreting data obtained from the interviews with ten Registered Nurses it was found that the primary goal of those interviewed was to maintain their health without limitations or loss of function. They expressed concern about nurses' lack of self-care and seemed to have high expectations for themselves and other nurses. The participants appeared to consider women and nurses as possibly an oppressed group because of gender issues and the hierarchical structure of the health care system. Their perceptions appear to tie in with the continuing need for reflective and critical thinking as suggested by Friere.



Friere's techniques with oppressed groups might include the encouragement of discussions of the needs and interests of the members in order to increase the self-esteem of the group and gradually to increase the power of the group. Discussion by nurses about health and health issues could then become a tool for nurses' emancipation from perceived oppression.

This descriptive and exploratory study assessing the health of a group of Registered Nurses may provide a baseline for future study of nurses' health. It may also give an indication of areas for health promotion programs for nurses and a discussion point for nurses to continue to assess their own health and the factors affecting their health and goals for health.

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**Appendices**

Appendix A



Statistics Statistique  
Canada Canada

Ottawa, Canada

123

KLA OT6

March 31, 1988

Ms. Pauline Hoskin  
P.O. Box 335  
Fort McCleod, Alberta  
T0L 020

Dear Ms. Hoskin:

I am writing to note that you are free to use any of the questionnaire items from the Canada Health Survey.

I recommend that if you do use items from the Canada Health Survey that you might make note of this in the methodology section of your report and include a reference to the main report of the Survey (Catalogue 82-538).

If you have further questions about the construction of the scales in the Survey, please do not hesitate to contact me.

Yours sincerely,

Owen Adams  
Research Analyst  
Vital Statistics and  
Health Status Section  
Health Division  
18-B, R.H. Coats Bldg.  
Tunney's Pasture

Canada

Appendix B

;

## APPENDIX A

## CERTIFICATE OF HUMAN SUBJECT RESEARCH

NOTE: The Ethical Guidelines of the Social Sciences Humanities Research Council of Canada will apply to all school-based research. The sections that are particularly relevant are those dealing with rights of individuals, informed consent, deception, risk/benefit, privacy, confidentiality and research on children. (See *Ethical Guidelines for Institutional Review Committees For Research With Human Subjects*, SSHRC, Sept. 1981).

DATE: 1987 02 13

NAME: Pauline L. Hoskin

DEPARTMENT: Education

PROFESSOR AND COURSE: Dr. Myrna Greene  
(If student project) M.Ed Thesis(ED. 6000)

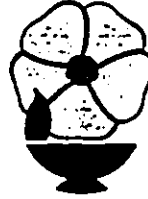
TITLE OF PROJECT: The Health of Nurses

The Human Subject Research Committee has examined the documentation to support the above-named project on matters relating to the ethics of human subject research. The Committee approves the procedures proposed and certifies with the applicant that the treatment of human subjects will be in accordance with University policy.

Pauline L. Hoskin  
Applicant

W. Ryan Brown  
Chairperson  
Human Subjects Research Committee  
University of Lethbridge

Appendix C

**ALBERTA ASSOCIATION OF REGISTERED NURSES**

10256 - 112th STREET  
EDMONTON, ALBERTA  
T5K 1M6  
TELEPHONE (403) 426-0160

FILE NO. -- 101.3/304.2

December 10, 1986

Pauline Hoskin  
Box 335  
Fort Macleod, Alberta  
T0L 0Z0

Dear Pauline Hoskin:

I am pleased to advise you that your request for access to the membership as per your letter of November 28, 1986 has been granted by the Provincial Council at the meeting of December 3, 4 & 5, 1986.

Please contact Myrna Schooley, Administrative Assistant, of this office for discussion of your needs, the procedures for contact with your sample and the associated costs.

Season's Greetings!

Yours sincerely,

Yvonne Chapman  
Executive Director

YC/h1

cc Myrna Schooley



Appendix D

A-820, The University of Lethbridge  
4401 University Drive  
Lethbridge, Alberta T1K 3M4  
February 23, 1987

Dear AARN Member:

I am a Registered Nurse with a strong interest in the promotion of health, especially the educational aspects of this work. At present, I am a full-time student at the University of Lethbridge in the Master of Education program. For my thesis I am conducting a research study on the health of nurses.

You have been chosen to participate in this research study through random selection from amongst the AARN members of District 5, Ward 4. I would like to send you a personal letter instead of this form letter; however the AARN policy is to protect its members' identities by not giving out their mailing list; thus the AARN has addressed these envelopes.

The purpose of this research study is to discover and describe the health and future health goals of a group of Registered Nurses. I believe that this study has significance for all of us as nurses. We are constantly answering people's questions about health. But, what about us? How healthy are nurses? What goals do nurses have for their personal health?

In order to answer these questions, I need your help. Please take a few minutes to complete the attached questionnaire and mail it in the stamped, return envelope. If you are also willing to take part in an interview, please complete and return the consent form as well. I will then phone you to arrange a convenient time when we can meet.

The information which you provide will be kept confidential. A summary of the findings will be submitted to the AARN Newsletter and will be available to participants on request.

I am excited about this research study. To my knowledge research of this nature has not been carried out with nurses. Your prompt reply will be greatly appreciated. For more information please phone me (University of Lethbridge: 329-2253, or 329-2424; residence: 553-3759).

Thank you,

*Pauline L. Hoskin*

Pauline L. Hoskin, B. N.

Appendix E



	Often	Sometimes	Never
F. Do you ever have spells of dizziness?	—	—	—
G. Do you feel weak all over much of the time?	—	—	—
H. Do you feel healthy enough to carry out the things you would like to do?	—	—	—
I. Do you feel you are bothered by all sorts (different kinds) of ailments in different parts of your body?	—	—	—
J. Do you ever have loss of appetite?	—	—	—
K. Do you have any trouble in getting asleep and staying asleep?	—	—	—
L. Has ill health affected the amount of work you do?	—	—	—
M. Have you ever felt you were going to have a nervous breakdown?	—	—	—
N. Are you ever bothered by nightmares?	—	—	—
O. Do you tend to lose weight when important things are bothering you?	—	—	—
P. Do you tend to feel tired in the mornings?	—	—	—

2. Comments? \_\_\_\_\_

### Section III: OTHER ASPECTS OF YOUR HEALTH

1. When did you last have a Pap smear test? (check one)

- Never \_\_\_\_\_
- More than three years ago \_\_\_\_\_
- Between one and three years ago \_\_\_\_\_
- Less than 12 months ago \_\_\_\_\_
- Don't know \_\_\_\_\_

Comments? \_\_\_\_\_

2. When did you last have a breast examination by a doctor or nurse? (check one)

- Never \_\_\_\_\_
- More than two years ago \_\_\_\_\_
- Between one and two years ago \_\_\_\_\_
- Less than 12 months ago \_\_\_\_\_
- Don't know \_\_\_\_\_

Comments? \_\_\_\_\_

3. How often do you examine your own breasts for tumors or cysts? (check one)

Never \_\_\_\_\_  
 Less often than every 3 months \_\_\_\_\_  
 Once every two to three months \_\_\_\_\_  
 At least once a month \_\_\_\_\_  
 Don't know how to do it \_\_\_\_\_

Comments? \_\_\_\_\_

4. In the last 12 months, about how often have you taken at least one drink of beer, wine, liquor or any other alcoholic beverage? (check one)

Never \_\_\_\_\_  
 Less than once a month \_\_\_\_\_  
 About once or twice a month \_\_\_\_\_  
 About once a week \_\_\_\_\_  
 About three times a week \_\_\_\_\_  
 Once or twice a day \_\_\_\_\_  
 More than twice a day \_\_\_\_\_

Comments? \_\_\_\_\_

5. If you smoke, how many cigarettes do you now smoke each day? (check one)

Don't smoke \_\_\_\_\_  
 Half a pack a day or less \_\_\_\_\_  
 Half a pack to one pack a day \_\_\_\_\_  
 More than one pack to less than  
 two packs a day \_\_\_\_\_  
 Two packs a day \_\_\_\_\_  
 More than two packs a day \_\_\_\_\_

Comments? \_\_\_\_\_

6. How often do you fasten your seatbelt when you travel as a passenger or driver in a car, truck or van? (check one)

Never or no seatbelts \_\_\_\_\_  
 Rarely \_\_\_\_\_  
 Most of time \_\_\_\_\_  
 Always \_\_\_\_\_

Comments? \_\_\_\_\_

7. How often did you participate in active sports or vigorous physical activity long enough to get sweaty, during leisure time within the past four months? (check one)

Not at all \_\_\_\_\_  
 Less than once a month \_\_\_\_\_  
 About once a month \_\_\_\_\_  
 About 1 to 2 times a week \_\_\_\_\_  
 3 or more times a week \_\_\_\_\_

Comments? \_\_\_\_\_

8. Check how long ago you last had each of the following immunizations or tests.

	never	less than 3 years ago	4 - 10 years ago	more than 10 years ago	don't know
Diphtheria immunization	___	___	___	___	___
Tetanus immunization	___	___	___	___	___
Sabin oral polio	___	___	___	___	___
Salk injection polio	___	___	___	___	___
Rubella immunization	___	___	___	___	___
Rubella titre	___	___	___	___	___
Tuberculin skin test	___	___	___	___	___
BGG vaccine	___	___	___	___	___
Hepatitis B vaccine	___	___	___	___	___

Comments? \_\_\_\_\_

9. As a nurse I consider myself to be a role model of health for others. (check one)

strongly agree \_\_\_    agree \_\_\_    neutral or no opinion \_\_\_    disagree \_\_\_    strongly disagree \_\_\_

Comments? \_\_\_\_\_

#### Section IV - SOME FACTS ABOUT YOU

The next few questions will help relate information on your health to that of other people in Canada with similar backgrounds.

1. Age: (check one)
- |              |     |
|--------------|-----|
| less than 25 | ___ |
| 25 - 34      | ___ |
| 35 - 44      | ___ |
| 45 - 54      | ___ |
| 55+          | ___ |

2. Current marital status: (check one)

single (never married)	___
married	___
widowed	___
divorced	___
separated	___
other	___

## 3. Highest level of education attained: (check one)

diploma in nursing \_\_\_\_\_  
 post graduate diploma in nursing \_\_\_\_\_  
 bachelor degree in nursing \_\_\_\_\_  
 master degree in nursing \_\_\_\_\_  
 other (please specify) \_\_\_\_\_

## 4. Number of years experience in nursing practice [full-time equivalent]: (check one)

0 - 1 \_\_\_\_\_ 2 - 5 \_\_\_\_\_ 6 - 10 \_\_\_\_\_ 11 - 15 \_\_\_\_\_ 16 - 20 \_\_\_\_\_ 20 - 24 \_\_\_\_\_ 25+ \_\_\_\_\_

## 5. Area of current employment: (check one)

hospital \_\_\_\_\_  
 community health \_\_\_\_\_  
 nursing home \_\_\_\_\_  
 occupational health \_\_\_\_\_  
 teaching nursing \_\_\_\_\_  
 other (please specify) \_\_\_\_\_

## 6. Average hours of work per week: (please specify) \_\_\_\_\_

## 7. Size of community of residence: (check one)

under 250 \_\_\_\_\_ 250 - 999 \_\_\_\_\_ 1,000 - 2,499 \_\_\_\_\_ 2,500-4,999 \_\_\_\_\_ over 5,000 \_\_\_\_\_

Thank you for completing this questionnaire. If you have any comments or suggestions, please write them in the space following on this page. If you agree to participate in an interview, please sign the consent on the next page; you will be contacted by phone for an interview.

**Thank You!**  
 Pauline Hoskin  
 A820, c/o Education Research Centre  
 University of Lethbridge  
 4401 University Drive  
 Lethbridge, Alberta  
 T1K 3M4  
 329-2253



Section V - CONSENT FOR INTERVIEW

I, \_\_\_\_\_, consent to be interviewed. I understand that all  
(please print name)  
personal identifying information will be kept confidential and that a report of this study of the health  
of nurses will be available on request.

\_\_\_\_\_  
(date)

\_\_\_\_\_  
(signature)

\_\_\_\_\_  
Address (please print)

\_\_\_\_\_  
Phone number

Appendix F

c/o Education Research Centre  
The University of Lethbridge  
4401 University Drive  
Lethbridge, Alberta  
T1K 3M4  
9 March 87

Dear AARN Member,

About two weeks ago you were one of one hundred Registered Nurses to receive a special questionnaire and consent for interview. These forms which came in the mail with a return envelope are concerned with the topic, the health of nurses. This is the first time such a survey has been done with nurses in Alberta as far as I know.

Have you been able to complete and return the questionnaire and consent for interview? If you have, I want to thank you for your assistance. If you have not yet returned these, would you please take a few moments now to complete and mail these.

Your confidential response is important. It will contribute to what is known about the health, the health practices and the health goals of nurses.

Thank you for your cooperation and participation.

Sincerely,

*Pauline L. Hoskin*

Pauline L. Hoskin, B.N.

Appendix G

Appendix G - Interview Questions

1. What does health mean to you personally?
2. When you describe yourself as in good health, how do you describe yourself?
3. In what areas do you feel you are not in good health?
4. What are your personal goals for your future health?
5. What are you doing now to reach your personal health goals?
6. How do you plan to reach your personal goals for health in the future?
7. Are there any barriers to reaching your personal health goals? Would you describe these.
8. What do you consider is the greatest concern for nurses' health?
9. Is there anything else you would like to comment on regarding your personal health or the health of nurses as a group?

Appendix H

Comments from Questionnaires

Number sent out: 100

Number returned: 69

Number with comments: 37

Section	Format of Instrument (N)	Specific Personal Data (N)	Family Related Data (N)	Work Related Data (N)
<u>One</u> Feelings	Words "very happy", "pretty happy", etc., too extreme prefer word "seldom"(2)  2	Just had 2 weeks vacation(1) Loneliness is retro- spective not isolating(1) Mood changes in conjunc- tion with menstruation(1) Feel good about life(1)  4	Recently divorced (1) Baby due in 2 weeks(1) Husband just laidoff(1) Teenagers fairly well behaved(1) Planning to get married(1)  5	Stressful job and people can "ruin my whole day"(1) Enjoy my work(1) Budget cuts at work cause ups and downs(1)  3
<u>Two</u> Health Opinion	Sometimes should be read "rarely" and "seldom"(2) No specific question included about over-eating(1) Question I is vague(1)  4	Heart beating hard caused by viral infection(1) I wish I would loss weight(3) The hardest thing I do each day is get out of bed(2) Back pain(1) Post choley (chole- cystectomy) pain(1) When I'm tired things seem to be their worst(1) Worry prevents me getting a sound sleep(2) I scarcely ever go to a doctor(1)  12	Full day at office and then home chores on top tire me out and I get rundown(2)  2	Recent surgery put me off work 5 weeks(1) Work nights and this sometimes causes sleeping problems(2) 12 hour shift and stress on the unit affect sleep habits(2)  5

Comments from Questionnaires (Cont'd)

Section	Format of Instrument (N)	Specific Personal Data (N)	Family Related Data (N)	Work Related Data (N)
<u>Three</u> Other Aspects				
1. Pap smear		Booked for one soon(3) Always yearly(5) Negative recently(1) Had hysterectomy(1) I hate pelvic exams(1) I used to go annually up to 5 years ago(1) Recent physical(1)	14	A lot of co-workers are embarrassed to go to someone for a pap smear when they work closely with them everyday(1)  1
2. & 3. Breast exam by professional and by self		Regularly(5) I try to check myself monthly(5) I had benign lump removed few years ago(1) I go to cancer clinic every 3 months(1) I don't do self- examinations as often as I should(2)	15	Other medical checkups are a waste of Alberta Health Care money(1)  1



Comments from Questionnaires (Cont'd)

Section	Format of Instrument	(N)	Specific Personal Data	(N)	Family Related Data	(N)	Work Related Data	(N)
4. Alcohol Consumption			Varies from none to one a day(1) Belong to a wine society as a hobby(1) Less than once a month during pregnancy but usually once or twice a month(1) Unable to anymore due to choley (cholecystectomy) pain(1)	4	At social gatherings and occasionally at a meal with my husband(1)	1		
5. Smoking	Would it be of interest to know if "have never smoked" vs. "how long have smoked?"(1)	1	Quit this year after using up to 1 pack a day(1) Allergic to cigarette smoke(1) Approximately 1/4 pack(1) Have never smoked(1)	4	My husband smokes but not in the house(1)	1	We had to fight tooth and nail for our coffee room to be non-smoking area(1) Allergy to cigarette smoke makes home nursing difficult(1)	2
6. Seatbelt	Especially on highway(3)	3	Everyone in my car must(1) I'm trying to make it a habit(2), Especially in light of April legislation(1) Every since I was 16(1) I do in Saskatchewan, i.e. out of province(3)	8	Also insist that teens use seatbelts even though they drive on their own(1)	1		

Comments from Questionnaires (Cont'd)

Section	Format of Instrument (N)	Specific Personal Data (N)	Family Related Data (N)	Work Related Data (N)
7. Physical exercise	Mostly 2-3 times week(2) Dec. & Jan., 1-2 times a week but not at all in Feb. & March(1) Not regularly(1)	Was but not at the moment due to physical injury(2) I ski a lot(1) Have an exercycle, rowing machine and slanting exercise board which I try to use daily(1) Walk briskly(2) I realize I am far too sedentary for a healthy lifestyle(1) Curl 2 times a week(1) Go swimming(1)		On days off attend aerobics(1) Own a small farm so my leisure time is spent working on the farm(1)
	4	9		2
8. Immunization	Chest X-ray less than 3 years(1)	I had German Measles last year(1)...as a child(1) Rubella...not applicable(1) Positive reactor to tuberculin(1) Right up to date with everything(3) Hepatitis B carrier(1) A good reminder to check up on this, last booster likely 10 years old(1)		Health Nurse looks after this(2) Kept immunization up to date while working in active treatment hospital(1)
	1	9		3

Comments from Questionnaires (Cont'd)

Section	Format of Instrument (N)	Specific Personal Data (N)	Family Related Data (N)	Work Related Data (N)
9. Role Model		<p>Not to the point where I have to be perfect(1)            Except in area of conditioning...poor role model            Overweight, drink a little too much and do not exercise as much as I should(2)...            Couldn't possibly be a role model(1)            Not smoking and I have a papsnear(1)            Diagnosed as having M.S.(1)            I feel my personal life is my own business(1)            Nurses should exemplify good health habits but not sure that nurses have that much status that the public really notices(1)            Exercise and don't smoke but diet, not always healthy(1)</p>		<p>I feel having good health as a nurse does not influence others to change their ways...quit smoking because I was concerned about my own health(1)            Professional life requires I not participate in activities which would inhibit my ability to be a professional(1)            Enjoy my job(1)            Have more credibility with clients when I am healthy but we are all individuals and what is right for me may not be right for another person(1)            Should be initiating lifestyle teaching... by their lifestyle(1)</p>
		9		5

Comments from Questionnaires (Cont'd)

Section	Format of Instrument (N)	Specific Personal Data (N)	Family Related Data (N)	Work Related Data (N)
Four Marital Status			There are only two types of marital status: married and single(1)	1
Education	Ph.D (nursing education)(2) BA (Phys.Ed, Sociology/ Psychology, other)(3) BSc (Biology/Psychology, Archeology, other)(3) Nursing Unit Admini- stration(2) Working toward IN or BScN(5) Midwifery(1) Recent nursing refresher course(1)	17		
Years of Experience			Retired about 18 years while raising children(1)	1

Comments from Questionnaires (Cont'd)

Section	Format of Instrument	(N)	Specific Personal Data	(N)	Family Related Data	(N)	Work Related Data	(N)
Area of Employment							Community mental health(1) Children's home(1) Labour & delivery(1) Correctional Centre(1) Homecare(1) Associate Professor(1)	6
Hours Worked per Week							37 1/2 (5) 37.75 (2) 38.75 (3) Work 1-2 hours unpaid per day(1) 40-55 (7) 60-65 occasionally more(1) 12 hour shifts/14 shifts per month(1) 84 hours per 2 week (3 days; 4 days) (1)	21

Comments from Questionnaires (Cont'd)

Section	Format of Instrument (N)	Specific Personal Data (N)	Family Related Data (N)	Work Related Data (N)
Added Comments	Concern re: Shift work should be definitely included. Week-end work, family stress, 12 hour days and long stretches affect nurses' health(1)		On maternity leave(2)	Young hopeful health workers should be directed to other fields (physio- therapy, speech therapy, dental hygienists) as few nurses employed in hospitals or clinics. Broaden RN, BScN courses(1)
	1		2	1