Diagnosing the Need for Change in the Job Structure of Nurses in a Personal Care Home

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A practicum report

presented to the University of Manitoba

In partial fulfillment

of the requirements for the degree

Master of Nursing

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by

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DIAGNOSING THE NEED FOR CHANGE IN THE JOB STRUCTURE OF NURSES IN A PERSONAL CARE HOME

BY

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A practicum submitted to the Faculty of Graduate Studies of the University of Manitoba in partial fulfillment of the requirements of the degree of

MASTER OF NURSING

Dedicated to my family

My husband Adolf for his support and understanding,

my children Lisa and Karl who wouldn't let me quit and

my mother Louise who encouraged learning by example.

ABSTRACT

This practicum examined the job structure of registered nurses at a personal care home in order to assess what changes (if any) in job design could facilitate quality nursing care and job satisfaction. The practicum was designed using the job characteristics framework developed by Hackman and Oldham. Job dimensions identified by these researchers as more apt to promote quality performance and job satisfaction were used as themes to guide the collection, content analysis, and interpretation of data.

Data was collected based on a need assessment approach using a triangulation methodology in the following ways: (1) Hackman and Oldham's Job Diagnostic Survey was used to obtain quantitative data about the motivating potential of the job structure, (2) organizational documents were examined to gain information about the existing job design, (3) pertinent literature was reviewed to identify changes to job design which have resulted in increasing quality care and job satisfaction, and (4) the project investigator's observations were used to help interpret the findings.

The practicum findings indicated that a considerable degree of job satisfaction and quality nursing care exist but that job structure changes particularly to task identity, skill variety and feedback from the job could be improved. Recommendations for changes were developed and possible effects on quality nursing care and job satisfaction were discussed.

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I would also like to express my gratitude to the Board of Directors and Management at the personal care home for granting permission for the practicum project. I owe a special debt to the Director of Nursing and the nurses for their willingness to participate. Without their cooperation and good-will I would not have been able to complete the project.

An important part of my graduate studies has been the friendship and exchange with faculty and fellow graduate students. I wish to especially acknowledge my colleague Betty Thomlinson who offered me friendship as well as professional stimulation.

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INTRODUCTION

1.1 Statement of the Problem

Providing quality gerontological care to the elderly in personal care homes (PCHs), as nursing homes are called in Manitoba, is becoming increasingly difficult as a result of demographic changes, limitations in government funding, and changes in the expectations of caregivers and consumers (Mantle, 1988). Since nursing care is the primary service in PCHs (Peters, 1989), nurses are in a position to have great impact on the well-being of residents (Andres, 1988; Kappeli, 1984). One important determinant of work outcomes, such as quality of care and job satisfaction, is how the work is designed. Examining the job structure of nurses is thus important in order to determine what kind of job design would more likely facilitate positive outcomes such as quality care and job satisfaction (Charns & Schaefer, 1983; Kramer & Schmalenberg, 1988).

1.2 Purpose of Practicum

The intent of this practicum project was to examine the job structure of registered nurses at a personal care home in Winnipeg, Manitoba (which will be referred to as City PCH) in

order to assess if changes in job design could facilitate quality nursing care and job satisfaction.

This project was developed in collaboration with, and permission and support of, the Board and Management of City PCH which expressed interest in promoting quality nursing care and job satisfaction. Important to the development of this project is also the administrator initiated process of strategic planning to deal with external pressures such as financial constraint and pressure to admit a greater proportion of frail elderly. As part of this process, the Director of Nursing began examining the work structure of registered nurses to determine what changes could facilitate quality nursing care and job satisfaction.

1.3 Significance

Recommendations provided by the project coordinator can aid in City PCH's strategic planning process. The information will also assist the Director of Nursing (DON) in addressing the following questions:

(1) Is the work of the registered nurses employed at City PCH designed in a way that quality care and job satisfaction are likely to occur?

(2) Do the registered nurses desire change?

(3) What changes in the job design of registered nurses are more apt to facilitate quality nursing care and job satisfaction?

(4) Do organizational structures support a job design that is likely to provide quality care and job satisfaction?

Not only can the information obtained from the practicum project be useful in developing recommendations, but the data can also provide a base line from which the effects of changes can be measured (Hackman & Oldham, 1980).

1.4 Practicum Design

Organizational changes are more likely to result in positive outcomes if diagnosis preceeds change rather than if change is arbitrarily instituted because decision-makers feel it may be effective. A needs assessment approach is used by organizations to determine specific needs for change and for measuring the effects of changes (Argyris, Putnam & Smith, 1985; Charns & Schaefer, 1983; Cohen, Fink, Gadon & Willits, 1980; Foster, 1972; McCauley, 1987; Polit & Hungler, 1983; Seashore, Lawler, Mirvis, Cammann, 1983; Stoner, 1982; Webber, 1983). Because of the interconnectedness of all parts of organizations and the environment, better diagnosis can be made if the assessment is multifocal and if more than one measurement tool is used; that is, if a triangulation methodology is employed (Seashore, 1983).

For this reason, in order to provide the DON with the desired information, a needs assessment approach using a triangulation methodology was chosen for this project. Various tools, such as observation, interviews, questionnaires, and

the examination of various organizational documents, were employed to determine the specific needs for change.

The Michigan Quality of Work Program (MQWP) is an example of a successful research project which used a triangulation methodology, based on a needs assessment approach, in order to improve the quality of work life and to enhance the economic performance of work organizations. Recommendations for organizational changes were based on a variety of assessment tools to determine specific aspects of organizations that required changes. Outcomes of these changes were then measured (Seashore, Lawler, Mirvis & Cammann, 1983). This group of researchers contend that they were able to obtain better results by first using need assessment tools to determine the specific need for change than by just instituting various change programs.

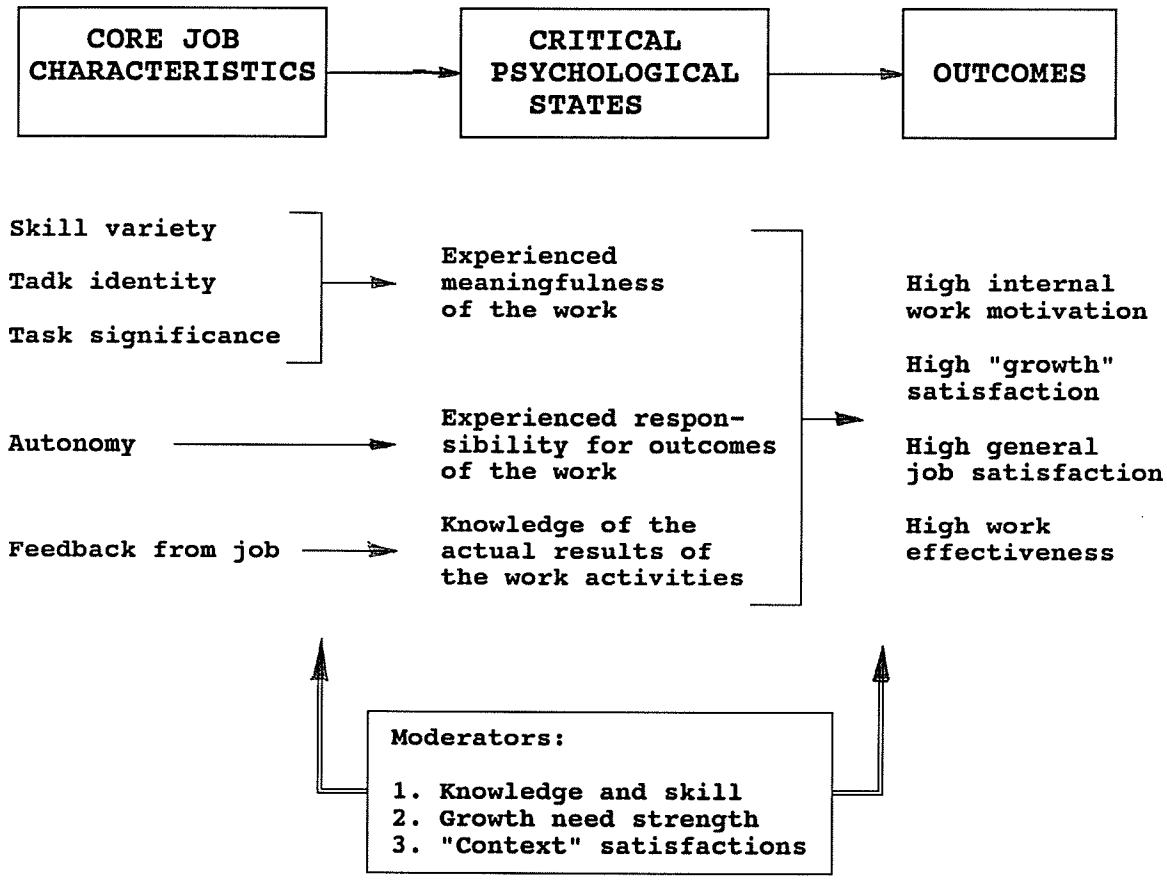
1.5 Conceptual Framework

A conceptual framework or model depicts "interrelated concepts assembled together in some rational scheme by virtue of their relevance to a common theme" (Polit & Hungler, 1983, p. 611). Models are designed to show the factors and processes involved in the phenomena being investigated in order to reduce conceptual abstraction (Hauser, 1980). Assessment projects can use models as "maps" to provide guidance and direction to all aspects of the assessment process. Hauser (1980) suggests that models can assist in determining what

needs to be assessed. Furthermore, models assist in the organization of collected data as well as indicate analytical techniques.

In view of the above, selecting a model was deemed appropriate and important for the guidance of this project. Hackman and Oldham (1980) developed a job characteristics design model incorporating motivational approaches to job design. This model (Figure 1) was selected by the project investigator as a conceptual framework because the outcomes of interest (job satisfaction, intrinsic motivation, job performance and attendance) coincided with those desired by City PCH and because this well-developed model has been helpful in guiding research and organizational assessment and change for the past decade (Fried & Ferris, 1987). Furthermore, a review of the literature, presented in the next chapter, indicated that several successful nursing-care delivery systems are based on principles suggested by the model developed by Hackman and Oldham. In addition, these researchers have developed a questionnaire, the Job Diagnostic Survey (JDS), based on their model which has been used extensively and is readily available.

FIGURE 1. THE HACKMAN-OLDHAM MODEL*



*Hackman, J.R. & Oldham, G.R. (1980). Work Redesign. Reading, Massachusetts: Addison-Wesley Publishing Company. Used with permission.

1.5.1 Model Description

This model consists of three parts, namely, work outcomes, core job characteristics, and moderators.

Work Outcomes

Hackman and Oldham (1980) suggest that outcomes of job satisfaction, work effectiveness, internal work motivation, and personal growth satisfaction are more likely to occur if the jobholder experiences three critical psychological states: experienced meaningfulness of work, experienced responsibility for the results of the work, and knowledge of results.

Core Job Characteristics

Although these psychological states can not be directly manipulated in designing work, job characteristics, which can enhance the above psychological states, are open to manipulation and can be changed. Hackman and Oldham (1980) identified five core job dimensions that, they suggest, can enhance the critical psychological states and thus indirectly produce favourable outcomes. These job characteristics are: skill variety, task identity, task significance, autonomy, and feedback. A job is said to have a high motivating potential if the five core job characteristics are present to a great degree.

Moderators

A job high in motivating potential will, according to this model, not affect all individuals in the same way. Three

conditions are seen as able to moderate the outcomes of redesigned job characteristics - the knowledge and skill possessed by the jobholder, the value the jobholder has for personal growth and accomplishment, and how satisfying the employee considers the job context to be.

1.6 Definition of terms

Terms used in this practicum are defined below.

Personal Care Home- PCHs are long term care institutions whose residents, primarily elderly, have varying functional disabilities and who can no longer be cared for at home. In Manitoba a multi-disciplinary panel judges whether individuals require admission to facilities licensed to provide personal care.

Level of care- In Manitoba the level of care required by residents of PCHs is based on the level of dependence on nursing time. The level of care, determined by an assessment performed by the Manitoba Health Services Commission, represented by a nurse, is the basis for government financial reimbursement (Forbes, Jackson & Kraus, 1987). There are four levels of care, the fourth being the one indicating the highest need of nursing time. That is, level four residents require maximum assistance for the following: bathing and dressing, feeding, treatment, ambulation, elimination, and support and supervision (Forbes, Jackson & Kraus, 1987). Most

PCHs in Manitoba are funded to admit 40% Level two and 60% level three and four category of care.

Frail Elderly- The elderly, mostly over eighty years of age, who require a high degree of multi-disciplinary care (Burnside, 1990).

Staff Nurse- Professional, registered nurses working at the staff nurse level.

Quality Gerontological Nursing Care- Nursing care which enhances the quality of life for the older person. This definition is based on the standards adopted by the Canadian Gerontological Nursing Association (1990), to which Manitoba gerontology nurses belong.

Job Satisfaction- The degree to which employees are satisfied with the work itself. That is, to what extent does the work meet needs such as health, security, affiliation, esteem (Dessler & Duffy, 1984; Hackman & Oldham, 1980).

1.7 Methodology

The project investigator (1) used the JDS questionnaire (developed by Hackman and Oldham as a needs assessment tool), (2) examined various organizational documents (such as organizational charts, job descriptions and statement of philosophy and purpose) (3) participated in an orientation process at the facility, and (4) examined the literature. These methods of data gathering were used as tools to develop

recommendations regarding changes in job design that can facilitate job satisfaction and quality care.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The focus of this practicum project is that of job structure and how it relates to quality nursing care and job satisfaction. A brief review of research dealing with quality performance, job satisfaction, and job structure is presented as part of the following literature review. The development of the conceptual model used to guide this practicum project is also described.

2.2 Background

2.2.1 Demographic Changes

Canadian demographic projections indicate that the present 10% proportion of elderly over 65 years will increase to 13% by the year 2001 and to 18% by 2021 (Canadian Medical Association, 1984). Particularly relevant to PCHs, is the projected increase (2.0% to 3.7% by the year 2025) of those elderly over 80 years who are in most danger of institutionalization and who often require the most care (Verbrugge, 1988). There is concern that Canadians will not be able to financialy support this change in demography since a

decrease in the tax base is expected to result (Evans, 1987; McDaniel, 1986). Of particular concern is the fear that our health care system will be bankrupted by the "oncoming elderly hordes" (Barer, Evans, Hertzman & Lomas, 1986, p.28).

Demographic aging will certainly have an effect on our social structures including our health care system (Barer, Evans, Hertzman & Lomas, 1986; Chappel, Strain & Blandford, 1986; Canadian Medical Association, 1984; McDaniel, 1986). Indeed, projections, such as those by Woods Gordon on the impact of demographic change on the health care system (HCS) in Canada, indicate that if no changes are made in the current pattern of providing health care services, costs may increase by approximately 75% as a result of a sharp increase in the need for beds and service personnel (Canadian Medical Association, 1984; Institute for Health Care Facilities of the Future, 1988).

2.2.2 Complexity of Health Care Delivery to Frail Elderly

The difficulty in providing both quality and cost effective health care will not only be due to the projected increase in the number of frail elderly. There is also a growing recognition that caring for frail elderly is complex work requiring specialized, skilled assessment and services from a variety of professionals, including nurses (Haight, 1989; Mitchell, 1989; Sills, Redfern, Kenny, Harrington &

Clarke, 1988; Weisberg & Pack). Furthermore, consumers of PCHs in Canada are no longer willing to accept custodial care, as was the practice in the recent past (Forbes, Jackson & Kraus, 1987; Mezey, 1989: Mitchell, 1989; Rowe, 1985).

One reason that caring for the frail elderly is recognized as being complex is that research of the aging process suggests that aging does not progress uniformly and predictably (Barer, Evans, Hertzman, & Lomas, 1986; Brubaker & Powers, 1976; Katch, 1983). The current view of aging stresses the importance of looking for and supporting existing strengths of elderly. This process requires frequent assessment and complex care (Newman, 1987; Penner & Ludina, 1984).

A second reason that caring for the frail elderly in PCHs is complex is that the frail elderly experience a high incidence and severity of chronic debilitating diseases, dementia, mental illness, and behavioral problems. In Canada, the national morbidity rate has climbed sharply while the mortality rate has decreased (Barer et al, 1986; Evans, 1989; Fries, 1989). This has accentuated the number and severity of chronic health problems. Although there is no cure for the above conditions, a great deal of knowledge and skill is needed in order to provide the necessary care.

Many HCS analysts believe, as Evans (1987) does, that society not only has choices that can mitigate the detrimental effects of an increase in the number of frail elderly but that

it also has an obligation to explore various available avenues so that both quality and cost effective care results. Studies indicate that it is not the demographic changes alone that emerge as the problem (Barer et al, 1986; Stoddart, 1986), but also the response of the HCS to the needs of the elderly. Demographical generated increases in health care expenditures alone could be met by real economic growth as low as 1% and certainly by 2% per year (Stoddard, 1986). This becomes more obvious when one considers the projected switching of the economic dependency ratio from the 0-14 year old group to the 65 year old group (McDaniel, 1986, figure 2, p.38).

A more careful examination of the health care needs of the elderly and how these needs are met indicates that it may be the response to these needs that contributes the most to the demographic problem, both in financial and in moral terms. Barer et al (1986), for example, refer to multiple studies that show a direct positive correlation between age and health care utilization after the age of 65 years. Barer et al, however, make the point that this utilization pattern is determined to a large extent by health care professionals and can be modified by better provider decisions. Other health care researchers substantiate this observation (Mango, Broyles & Angus, 1987; Roos, Shapiro & Roos, 1987). Many health care researchers, for instance, express the opinion that the medical model of illness care used in North America, which

emphasizes managing diseases after diagnosis, slowing their progression, and preventing death by heroic means (Verbrugge, 1989) has contributed to the increased number and severity of national morbidity and adds to the cost of caring for frail elderly.

The practice of institutionalization of the elderly is also seen as a major projected cost to Canada's Health Care System (CMA, 1984). Thus, it is not surprising that de-institutionalization is seen by many people as a major solution to the projected economic health care crisis, especially as studies indicate that the elderly prefer to remain in their own homes (Chappell, Strain & Blandford, 1986). The thrust to care for elderly in the community, however, does not necessarily decrease the need for PCHs nor decrease total health care costs (Kane & Kane, 1988; Kemper, 1988).

Manitoba, for instance, has been commended by Kane and Kane, prominent American researchers, for its excellent Home Care Program (1985). Horne, a Manitoba health care economist, in his presentation to the Colloquium on Aging with Limited Health Resources (1986), pointed out that the Manitoba experience has shown that home care can be more expensive than estimated by Woods Gordon in their report to the Canadian Medical Association (CMA, 1984). Horne also suggests that a further substantial reduction in PCH residents cannot be expected because a good process for assessing the need for

institutionalization is already in place and that hospitalized patients including PCH residents are already being discharged earlier than in the past. The Manitoba government-sponsored Price Waterhouse Report on the Continuing Care Program (1988) agreed with Horne's conclusions. Price Waterhouse found that there was an increase in total expenditure even with a good process for evaluating the need for institutionalization in place.

An extensive national demonstration project which sought to substitute community care for nursing home care in the United States was recently completed (Kemper, 1988). This project seemed to confirm the Manitoba experience. Indications are that although home care increases the quality of life for both the elderly and the caregiver, it has little effect on the mortality and functioning of elderly clients and institutionalization is only delayed (Applebaum, Christianson, Harrigan & Schore, 1988; Kemper, 1988; Woolridge & Schore, 1988).

Several explanations for this increase in costs are found in the literature. First, there is great difficulty in establishing a causal relationship between the provision of home care and improved health status of the elderly (Weissert, 1985) as there is a progressive decline in our body systems that occurs with aging (Barer, Evans, Hertzman & Lomas, 1987; Mustard, 1986).

A second reason for not realizing an extensive cost saving in home care is the hidden costs. Costs, such as the need for frequent screening to determine the need for change in care and for various support services such as equipment, and administration and coordination, are frequently overlooked (Avorn, 1984).

A third reason for the unexpectedly high cost of home care are changing social conditions (Binny & Estes, 1988; Cantor, 1983; Chappell, Strain & Blandford, 1986; Doty, 1986; Walker, 1987). In Manitoba, as in most home care programs, there is heavy reliance on the informal caregiver; primarily the family (Cantor, 1983; Chappell, 1986; Department of Health Policy Manual, 1987). The pool of informal caregivers in the community (who give 80 % of the care), however, is decreasing for several reasons. More women are in the workforce and so are unable to fill this role. Increased longevity has created the situation where children of the frail elderly are themselves elderly, or the elderly person has outlived their spouse and children. An increase in mobility and family breakup affects family availability. A large number of informal caregivers to elderly are experiencing physical, emotional, and social burden due to their caregiving duties and so must in turn receive help, further adding to health care costs, or relinquish the caregiving role (Cantor, 1983; Chappell, Strain & Blandford, 1986; Doty, 1986; Goodman, 1986; Zarit, Tod & Zarit, 1986). These factors seem to indicate that

more cannot be expected from families without inducing burnout. Findings from a study conducted by Cameron, Peters & Gregory (1990) indicated that caregivers could maintain a higher degree of health if appropriate formal support services were in place.

It thus seems clear that, although the "thrust in the direction of health care resources undeniably needs to be in the development of community resources to keep the elderly out of institutions as long as possible, not only to reduce costs, but to enhance quality of life" (C.M.A., 1984), this important and valuable goal must not obscure the needs of those elderly that cannot be looked after in the community. Nor is it prudent that this alternative be forced upon families so that hardship ensues or guilt is experienced when institutionalization appears to be the only alternative. Although the elderly which require institutionalization comprise only a small segment (5.7% of the population according to the Price Waterhouse Report, 1987) they are among the most vulnerable and so steps must be taken to protect their interests. Providing quality, cost effective care for the frail elderly is the challenge presently facing PCHs in Manitoba.

2.2.3 Quality of Health Care

As already alluded to above, the frail elderly in PCHs are generally suffering from various chronic conditions, such

as arthritis, dementia and behavioural problems (Allen & Hall, 1988; Evans, 1986; Forbes, Jackson & Kraus, 1987; Jerome-Forget 1986). Given that no cure exists for these problems and that the elderly are susceptible to the iatrogenic problems of medical over-treatment, the medical model of providing health care, with the emphasis on cure including high technology extraordinary means of intervention, has been identified not only as contributing to the high cost of caring for the elderly but also as not being appropriate. Sommerville (1986) even contends that over-treatment can be considered unethical. Fries (1989) proposes that, in the future, health care workers will recognize natural death due to aging, provide the necessary support and allow elderly to die rather than institute extraordinary means for prolonging life.

The emphasis on cure may lead staff to ignore or mismanage the major resident problems in PCHs, such as dementia and problem behaviour. One study found that the sixty-one per cent of 136 elderly in a PCH who suffered moderate to severe cognitive impairment received poorer medical and nursing care as cure was not seen as possible and supportive measures not seen as important (Fleishman, 1985). Separate studies found the same to be true for residents with mental and behavioural problems (Caston, 1983; Zimmer, Watson & Treat, 1984). Caston (1983), studied the management of mental illness in eight American PCHs. He concluded that

mentally ill residents did not receive treatment even though they accounted for between 60% to 80% of the residents, not so much because nurses were not able to recognize signs of mental illness, but because registered nurses did not have the necessary resources. That is, funding agencies did not provide an adequate number of registered nursing staff and medical caregivers were unwilling to respond to consultation.

Especially detrimental to institutionalized elderly is the premise of the medical model that all care should, not only be given, but also be determined by the caregivers-physicians and nurses. Rodin (1986) and Schwirian (1982) found that the elderly perceived a loss of control resulting from the above premise which created feelings of depression, sadness and anger.

A model of health care that focuses on 1) increasing the quality of life of the frail elderly by providing assistance in the activities of daily living, 2) prevention of further complications, and 3) provision of comfort measures would thus appear to be more appropriate than the medical model (Caston, 1983; Hirst, 1989; Mantle, 1988; Mohide, French, Caulfield, Chambers & Bayne, 1983; Ryden & Rustad, 1985; Zimmer, Watson & Treat 1984). This model of health care is supported by Peters who in her review of the literature, described quality in health care as "...the functional improvement of the client, modifications in the environment that eliminate physical and psychological barriers to the individual's

desired autonomy, and issues relating to quality of life" (1989, p.62).

2.2.4 The Role of Nurses

Nursing care is the primary service offered in PCHs and nurses are present at all times, therefore, examining the role of registered nurses in providing quality care is important. Furthermore, research on quality in long term care indicates that the "number of skilled nurses are an effective indicator of quality care, and that skilled nursing hours are the most effective proxy measure of nursing home quality" (Mezey, 1989, p. 158).

Nurses, for instance, have demonstrated that they can improve the quality of life of residents by using a quality of life approach. An example is the internationally recognized model of a quality of life approach referred to as the Priory Method. Developed by a Canadian nurse, Vera McIvor, this method includes not only custodial, physical care but seeks to use and strengthen the remaining resident capabilities to engage in various activities of daily living (McIvor, 1978). The results from using the Priory Method have been quite dramatic in that residents increased their ability and desire to participate in their own care and in various social activities. McIvor was able to institute this method because her job was expanded to include various psycho-social responsibility and greater autonomy to use various approaches.

More recently, nurses have demonstrated the recognition that quality of nursing care is based on improvement of the quality of life for elderly. The Canadian Gerontological Nursing Association has adopted standards, a statement of philosophy and a conceptual framework based on enhancing the quality of life of elderly in community and institutional settings (Standards of Gerontological Nursing, 1990).

There is increasing recognition that the complex, quality health care, which the elderly in PCHs require, will need to be provided with less funding in the future (Canadian Medical Association, 1984; Forbes, Jackson & Kraus, 1987; Horne, 1986). The efficient and appropriate use of staff is seen as important in the containment of the high cost of institutional care and increased quality of care (Barer, Evans, Hertzman & Lomas, 1986; Horne, 1986; Kappeli, 1984). Flett, president of Vancouver General Hospital, interviewed by Health Care magazine on perceived changes in health care in Canada in the nineties, is quoted as saying: "I don't think the big issue of the '90s will be the shortage of nurses so much as it will be the role of the nurse" (Rajkumar, 1990). He also believes that the hierarchical system in hospitals will change in the next few years.

2.3 Outcomes of the Work of Registered Nurses

Discussed below is research which indicates that registered nurses are able to provide quality and cost-

effective care while experiencing job satisfaction, if their job structure permits (Canadian Nurses Association, 1980; Horne, 1986; Kinlein, 1977; Mendalhall, Repicky Neville, 1980; Mundiger, 1980).

2.3.1 Quality of Nursing Care

Quality assurance systems attempt to assess the quality of care given by evaluating the structure, process, and outcome of work processes (Mezey, 1989). Tayler and Haussmann (1988) suggest that measuring the quality of health care provided by nurses is difficult because quality cannot be reduced to tasks and nurse patient relationships but is multidimensional. Measuring the quality of health care provided by nurses in nursing homes is especially difficult because quality of life measures, important in PCHs, are not well developed. Outcome measures presently in use are well developed for measuring physical, emotional, and social status, but they are not well developed for measuring quality of life satisfaction and perceived health status (Avorn, 1984; Drummond, Stoddart & Torrance, 1988; Forbes, Jackson & Kraus, 1987; Haight, 1984; Mezey 1989; Mutch, Devaney & Ogston, 1989; Peters, 1989; Weissert, 1985). The use of changes in residents' activities of daily living as quality outcome indicators of professional performance, is especially inaccurate. According to Mezey's investigation of the literature, changes in activities of daily living remain

fairly stable over time with no difference between high and low ratio of RNs or other health care resources (1989). Other indicators of quality of nursing care thus become important.

2.3.1.1 Registered Nurse Utilization

According to Mezey, in her summary of research on caregivers and quality of care in PCHs (1989), there is a direct relationship between the use of registered nurses and the quality of care received by residents. A survey report on the role of the registered nurse in PCHs, by Jones, Bonito, Gower & Williams in 1987, is described by Mezey (1989). The primary work involvement included: assigning and supervising physical care, administering tasks such as routine and complex therapies, developing nursing care plans, and teaching and counseling residents. The involvement of registered nurses in the planning, supervising, and coordinating the needed care in PCHs was especially seen by residents, their families, and researchers as contributing to the quality of nursing care. Furthermore, research also indicates that nursing assessments yield the most descriptive and valid indicators of the quality of care needed by residents (Peters, 1989). Also important to quality of care is the fact that nurses are readily available to provide the frequent resident reassessment required due to the unpredictability of the aging process. Likewise, their availability at all times makes registered nurses good

candidates for coordinating the care needed by elderly in PCHs (Forbes et al, 1987).

Registered nurses are also seen by many health care economists as a cost-effective substitute for some medical services (Horne, 1986; Sweet, 1986). Stevens (1985) recommends that in an economically-tight era, nurses could take over the entrepreneural opportunities that come closest to its strength, such as in nursing homes, for instance. Based on well documented Canadian studies, Horne estimates that an expansion of nurse practitioners (registered nurses with advanced training) would yield a 10 to 20 per cent overall reduction in health care costs without sacrificing quality (1986). Studies, such as the Burlington randomized trial of the nurse practitioner, have demonstrated that nurses can function more autonomously and provide satisfactory and cost-effective service if their job structure is expanded (Spritzer, Sackett, Sibley, Roberts, Gent, Kergin, Hacket & Olynich, 1974). A recent literature review by Askin (1990) confirmed that nurse practitioners have shown to be able to provide safe and efficacious health care and are well received by patients. A survey of the American Journal of Nursing found that 75% of the registered nurse respondents, performed 12 of 63 procedures for which doctors received reimbursement in 1991. Although most of the research on nurse practitioners is based on their work in the community and acute care hospitals, recent research demonstrates the benefits of nurse

practitioners in PCHs. An academic nursing home program was established at a 160 bed veterans nursing home in the United States which relied on geriatric nurse practitioners for day-to-day patient management (Wieland, Rubenstein, Ouslander & Martin, 1986). The nurses were part of an extensive interdisciplinary educational program. The beneficial outcome of the nurses' role expansion is reported to include a decrease in patient transfers and improvements in functional status, patient satisfaction and morale with only a minimal increase in cost.

2.3.1.2 Work Structure

Job structure would thus seem to be an important determinant of the quality of nursing care. The previously described medical model of health care has had a pervasive effect on the way health care workers, especially nurses have structured their work around tasks, often physician determined (Allen & Hall, 1988; Wahn, 1987). Mauksch (1981), however, points out that physician delegated tasks have never been the main component of nursing care. The major functions consist of health maintenance and health and self care education, followed by care of the ill and dying.

1. Routine and Efficiency

Providing nursing care under the medical model usually stresses that tasks be structured around routines and efficiency is greatly valued by proponents of this system.

While one cannot but recognize the many virtues of routines and efficiency, there are also several negative effects on the elderly. Depersonalization, for instance, often results as everyone is treated the same and people are "herded" together for various activities (Forbes et al, 1987). Kappeli (1984), based on her study of elderly care needs and nursing approaches, observed that a commitment to medical model tasks and routines, instead of commitment to the individual patient needs, resulted in the neglect of psycho-social needs and in fostering dependence. Schwirian (1982) in her study, Life Satisfaction Among Nursing Home Residents, confirmed that undue concern with tasks and routines leaves little time and energy for other than physical needs.

2. Division of Labour

Preoccupation with efficiency and task orientation can also result in the fragmentation of care as a division of labour staffing pattern develops. In Manitoba PCHs many categories of staff including registered nurses, licensed practical nurses, assistants, physicians, occupational therapists, physiotherapists, social workers and activity workers are employed. As the division of labour increases, a greater variety of staff is introduced into the institutional environment. Kappeli (1984), found that with this kind of staffing pattern no one has total responsibility for the residents' care, therefore, depersonalization is increased. Kappeli also found that the many kinds of staff can be very

confusing to elderly who are already having difficulty in coping with their environment.

3. Reliance on non-professional staff

Division of labour in nursing departments of PCHs has resulted in staffing patterns which rely heavily on non-professional staff. This can be attributed to the fact that the work carried out in PCHs has often been seen as primarily custodial and task oriented by administrators and funding agencies (Eliopoulos, 1983; Mantle, 1988; Mezey, 1989; Mezey, Lynaugh & Cartier, 1988; Mohide, French, Caulfield, Chambers & Bayne, 1983). Mezey (1989), however, in a review of research into the relationship between category of caregivers and quality nursing care, cites several studies which indicate "that the number of skilled nurses are an effective indicator of quality care, and that skilled nursing hours are the most effective proxy measure of nursing home quality" (p. 158).

4. Staff Allocation

In Manitoba, the task oriented, division of labour staffing pattern in PCHs is reinforced by the method of reimbursement and staff allocation. Government funding to PCHs is based on a Patient Classification System using The Nursing Dependency Guide (1987). Residents are assessed annually, by the Manitoba Health Services Commission, to determine their need for nursing assistance in their activities of daily living (Forbes, Jackson & Kraus,1987). Professional nursing intervention time is based "---only on specific tasks " such

as medications, blood pressures, and special skin care (Manitoba Health Services Commission, Nursing Dependency Guide, 1987). Based on her investigation on the effects of the use of classification systems in Canada on the practice of nursing, Campbell, however, concludes that "Nurses restrain their decisions and service provision when their time (per person) is limited" (1987, p.466). She suggests that patient classification systems especially decrease the use of professional nursing judgment.

Mitty (1989), based on a similar system of reimbursement in the United States for PCHs, also points out that the above method of reimbursement based on tasks and medical orders "...belies and belittles the knowledge and planning the nurse brings to the maintenance function of patient care". Her argument is that if nurses are able to increase the ability of a resident to function more independently or even maintain function, the resident is classified at a higher level of functioning and a decrease in funding ensues. More than that, the matter of the resident need for quality of life is entirely ignored.

5. Professional Isolation

Yet the work of nurses is more than tasks. Especially important to quality nursing care in PCHs are nurses who possess gerontological skills and knowledge, managerial skills, and the ability to establish good interpersonal relationships (Mezey, 1989; Peters, 1989). Nevertheless PCHs,

for the most part, employ predominantly non-professional staff and remain apart from the mainstream of the health care system (Mohide, French, Caulfield, Chambers & Bayne, 1983) and apart from research and educational programs (Burke & Donely, 1987; Mezey et al, 1988; Schneider, Wendland, Zimmer, List & Orgy, 1984). This separation from education and research can create academic and professional isolation and can result in poorer quality of care and decreased job satisfaction for registered nurses.

PCHs affiliated with teaching centers have been shown to improve the quality of care given to residents and to provide increased job satisfaction to nurses. In Canada, the first teaching nursing home was recently established at the Brownstone Nursing Home of Hamilton in conjunction with McMaster University in 1988. Due to its recent establishment, Canadian data evaluating benefits is not yet available (Ritchie, personal communication, 1990). In the United States, where teaching centers have been established for the past ten years, indications are that many positive results can occur. The most extensive teaching nursing home experiment, to involve nurses specifically is, the Robert Wood Johnson Foundation Teaching Nursing Home Program cosponsored by the American Academy of Nursing (Burke & Donely, 1987; Aiken, Mezey & Lynaugh, 1985; Mezey, Lynaugh & Cartier, 1988). Nurses in these PCHs were involved in various educational programs like university nursing programs and continuing education, had

access to gerontological specialists such as clinical nurse specialist, and were involved in various research programs. An important outcome of this affiliation was the expansion of the role of the nurse to include the nurse initiated management of resident problems such as incontinence, pressure sores, falls, and confusion (Huey, 1985). Positive outcomes are reported to include, research based practice (Braden, Smith & Bergstrom, 1988; Mezey et al, 1985), improved standard of nursing care (Huey, 1985; Wieland, Rubenstein, Ouslander & Martin, 1986), improved interdisciplinary team practice (Burke & Donely, 1987; Hickey, 1985), increased interest in gerontological nursing and enhanced image of staff nurses (Burke & Donely, 1987; Mezey et al 1988; Wells, 1985).

6. Autonomy

Important to the relationship of quality of care and how the job is structured is also the concept of autonomy. Management and nursing literature often link autonomy and appropriate authority to productivity and job satisfaction (Burton, 1986; Beyers, 1983; Hertzberg, 1968; Mintzberg, 1983; Northcraft & Neale, 1990; Peterson & Allen, 1986; Schlesinger & Balzer, 1985; Ulrich, 1978). Autonomy is defined by Hackman & Oldham (1980, p.79), in the previously described model, as "The degree to which a job provides substantial freedom, independence, and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out".

Autonomy appears to be especially important to professional employees. Mintzberg (1983) explains that in an organization which depends on the skills and knowledge of its workers a "professional bureaucracy" can develop. This he defines as being "....democratic, disseminating its power directly to its workers and provides them with extensive autonomy" (p. 205). Necessary skills have been standardized during the educational and indoctrination process and so considerable control over their work can be given to professionals. The decentralization of decision making in this type of organization occurs both vertically and horizontally because the work is complex and the necessary information is held by the professional. This allows not only more power but also greater autonomy over more of the work.

If excessive control is imposed upon the professional, dysfunctional behaviour such as, working for the benefit of the organization not the client, disturbance in client professional relationships and a decrease in innovation, often occurs (Mintzberg, 1983). Raelin, Sholl & Leonard (1983) isolated more specific deviant behaviours affecting productivity and quality performance resulting from less than desired autonomy. Based on a self selected study of 128 professional men, these researchers identified behaviours such as work-to-rule, absenteeism, choosing to spend time on projects more important to the individual than the organization, sometimes to the exclusion of the organization,

and demonstrating a stronger allegiance to professional organizations than to the employer.

A study of client advocacy is a nursing example of a negative outcome of decreased autonomy. Perry (1986), based on a random sample of 300 registered nurses, found a relationship between nurses' perceived autonomy and a client advocacy role. The greater the perceived autonomy, the greater was the likelihood that the nurse would be prepared to act as the client's advocate.

For nurses, the relationship between the amount of responsibility and the amount of delegated authority appears to be important. Simpson and Sears (1985), using job satisfaction, low staff turnover rates, and low absenteeism rates as proxy indicators for quality of nursing care in four acute care hospitals in San Francisco, found a correlation between these measures and the relationship between responsibility and the amount of delegated authority. Caston (1983) also found a relationship between responsibility and authority in PCHs he looked at. In examining the care of mentally ill residents of nursing homes, he found that although nurses were responsible for providing care to a large proportion of mentally ill, organizational structures did not provide them with resources and enough authority for obtaining appropriate care for mentally ill residents.

2.3.2 Job Satisfaction

Research has been inconclusive in establishing a direct correlation between quality performance and job satisfaction, the second work outcome of interest to City PCH. Nevertheless, enough data exists which indicates that job satisfaction does affect the quality of work. For instance, Hummel (1985), using a meta-analysis methodology, concluded that there appears to be a stronger association between job satisfaction and performance than has historically been recognized. Hummel suggests that moderator variables may strongly influence this association. It is interesting to note that there seems to be a stronger association for females, which may be important for a female dominated profession like nursing.

Kappeli (1984) also found such an association. She studied the needs of hospitalized elderly and the nursing care they received. She described four nursing approaches to providing nursing care: (1) the cooperative, who contributed most to the quality of life of elderly patients because these nurses were concerned with the needs and desires of the elderly and co-operated with the patients; (2) the conditional-cooperative, who contributed to the quality of life to those elderly who easily conformed to the dictates of staff; (3) the non-cooperative who gave minimal physical care with no concern for improving the quality of life for the elderly not co-operating with the wishes of the patients; and (4) the non-operative, who actually subtracted from elderly

quality of life by not providing any care or actually becoming abusive. She found a strong relationship between the approach used by individual staff members, and not only their commitment to the elderly but also the degree of job contentment.

Perhaps the most important study, for nurses, that links job satisfaction, job structure, and quality nursing care is the Magnet Hospitals study sponsored by the Academy of Nursing (McClure, Poulin, Sovie & Wandelt, 1983). Hospitals were selected that had a reputation for providing quality nursing care, were good places to work, and were successful in attracting and retaining nurses. Interview results identified the prevalent theme that nurses' job satisfaction was closely linked to certain factors in the setting that allowed them to provide quality nursing care. Factors that staff nurses identified as contributing to job satisfaction and their ability to provide quality nursing care included, a delivery system of care that allowed autonomy over their work (similar to primary nursing care), interdisciplinary planning of patient care, work feedback, and self controlled quality assurance programs. Nurses, participating in a 1989 follow-up study on Magnet Hospitals, rated organizational structure (staffing, benefits, staffing mix) and professional practice (interdisciplinary relations, job-related independence, nursing care delivery system) as the two most important contributions to nurses' job satisfaction (Kramer and

Schmalenberg, 1991). Specific trends that are reported to increase quality care and job satisfaction include an increase in the reliance on registered nurses, fewer middle managers, autonomous self-government at the unit level and participatory government at the larger organizational level, and experimentation with the primary nursing care delivery system. Important recommendations from these studies included an expansion in the role of the nurse in planning and implementing nursing care and modification of the medical model, with its emphasis on illness and physician centered care.

Job satisfaction is also important apart from the potential for improving performance. Specific job characteristics and positive environmental factors, for instance, are important criteria for selecting occupations as well as for increasing productivity and the quality of work, and in promoting job satisfaction (Charns & Schaefer, 1983; Deckard, Hicks & Rountree, 1986; Hackman & Oldham, 1980; Kramer & Schmalenberg, 1988; O'Brian, Knutson & Welch, 1987). The validity of this concern is supported by Forbes, Jackson & Kraus (1987). In their book on the institutionalization of the elderly in Canada, they suggest that not enough qualified staff may be attracted to institutions that care for the elderly because job satisfaction is perceived to be limited. A potential nursing shortage may accentuate this difficulty. Employment and Immigration Canada (1988) project that the

present overall Canadian deficit of approximately 1000 registered nurses will increase to approximately 5000 nurses by the year 1995. Manitoba is presently not experiencing a nursing shortage because of the many bed closures in acute care facilities. This decrease in nursing jobs may very well only be a time of transition that would change as community based health programs expand and the population continues to age. An increase in better career options for women affects recruitment of new nursing students by further decreasing the potential number of nurses (Baumgart & Larsen, 1988). PCHs may be most affected as the work of registered nurses in PCHs is often not seen as having much potential for job satisfaction (Cotler & Kane, 1988; Mantle, 1988; Rountree & Deckard, 1986).

Providing job satisfaction is also important because nurses, like other members of our workforce, have been affected by societal changes which have created a certain amount of work alienation. This alienation often results in an increase in turnover, absenteeism and a concomitant decrease in productivity (Burton, 1986; Chernecki, 1985; Hackman & Oldham, 1980; Herzberg, 1968; Simpson, 1985; Sims, Szilagyi & Keller, 1976) as worker expectation does not meet the reality of the work situation. Nurses no longer look upon organizations they work in with confidence and full commitment (Peterson & Allen, 1986). Instead, unions and professional organizations, which have become more influential, are looked to for support and guidance. The influence of unions and

professional organizations have contributed to better educated nurses who are more assertive and more aware of their actual and potential professional contribution to the health care system. Unions have also improved factors such as salary and working conditions. Workers who have such improved working conditions are more apt to demand changes in the workplace including job structure.

Canada is experiencing unrest among nurses. Manitoba nurses, for instance, recently demonstrated their dissatisfaction by remaining on strike for an unprecedented one month long. Salaries are partially responsible, but there are other equally important factors. Concerns such as poor working conditions, lack of recognition of nurses' role in the Health Care System, exclusion from participation in the decision making process regarding patient care, limited shared governance within the organization and the model of practice used, all contribute to nurses' feelings of dissatisfaction (Cairns & Cragg, 1987; Hindshaw & Atwood, 1984; McClure, 1984; McClure et al, 1983; Manitoba Nurses Union, 1989; Frisina & Murray, 1988).

Cabot and Dees, management representatives in labour disputes, suggest that employees are more apt to turn to unions for help if employees believe that their interests differ from their employer (1988). A study on what causes nurses to unionize (Roberts, Cox, Baldwin & Baldwin, 1985) appears to substantiate this. According to the questionnaire

responses received, nurses not only were concerned with salary and benefits but a significant correlation was established for statements indicating a desire for a challenging job and an active role in planning patient care. Similarly, Imberman (1989), in comparing managerial practices of 31 striking and 31 non-striking hospitals, identified quantitative differences in four areas: (1) grievance handling; (2) handling of prolonged overtime and weekend work; (3) degree of employee participation and involvement; and (4) employee perceptions of administration (feedback). For registered nurses the lack of participation was found to be especially detrimental as they greatly valued opportunities to contribute ideas in patient care and to unit administration.

Although the work of nurses in PCHs is still often viewed as "routine and the patient care problems predictable" (Eliopoulos, 1983, p.30), indications are that the potential exists for nurses' jobs in PCHs to be both satisfying and of great benefit to their elderly clients. A study, examining job satisfaction among registered nurses in skilled nursing facilities (PCHs), found that nurses working elsewhere held a much more negative perception of the work in PCHs than did nurses working in these facilities (Cotler, 1987). Other researchers have obtained similar results (Deckard, Hicks & Rountree, 1986; Mullins, Carnot, Busciglio, & Weiner, 1988). Greater autonomy, making difficult clinical decisions, and administrative and supervisory roles have been identified as

a source of satisfaction by nurses in PCHs (Cotler, 1987; Mezey, 1989).

2.3.2.1 Job Structure and Satisfaction

Dissatisfaction for nurses in PCHs is often found to be related to how the job is structured, not with the job itself. Rublee (1986) in examining correlates of turnover in five PCHs in the United States found that dissatisfaction with how the work was structured to be a particularly strong correlate. Job satisfaction was higher with job structures that provided for participation in nursing care decision-making, a more decentralized organizational structure, and greater motivation through reward of personal performance. Specifically, job structures that lacked (1) feedback regarding work outcome (2) skill variety (3) identity with the results of care (4) opportunities for advancement and (5) contact with other professionals (Cotler, 1987; Cotler & Kane, 1988; Deckard, Hicks & Rountree, 1986; Mezey, 1989; Mullins, Nelson, Busciglio & Weiner, 1988; Patterson, 1987; Ryden & Rustad, 1985) were identified as resulting in more job dissatisfaction.

As can be surmised from the above, job design is an important factor in determining the outcome of the work performed by registered nurses.

2.4 Theories of Job Design

Performance and job satisfaction are the result of a variety of interacting components (Dessler, 1979; Dessler & Duffy, 1984; Cohen, Fink, Gadon & Willits, 1980; Hinshaw & Atwood, 1984; Stoner, 1982). Factors - such as individual characteristics, the task itself, the rewards that accrue from the work, organizational factors (like structure and leadership), and how organizational changes are determined and implemented - all interact to bring about important results in the work place. Job design, which specifies the content and methods of the work of individuals and groups (Stoner, 1982), is one important variable which influences individual affective and behavioural responses (Brannon, Smyer, Cohn, Borchardt, Landry, Garfein, Malonebeach & Walls, 1988; Campion & Thayer, 1987; Clegg, 1984; Dessler, 1979; Fried & Ferris, 1987; Hackman & Oldham, 1980; Pierce and Dunham, 1976; Pierce, Dunham & Cummings, 1984; Stoner, 1982). Various theories of job design will be briefly outlined in this section.

Many approaches developed by management scientists to improve job satisfaction and quality of work are based on the assumption that the worker must change rather than the work itself (Baker, 1988; Frankenhaeser,1989; Hackman & Oldham, 1980; Johnson, Johansson & Hall, 1988). As these authors point out, however, there is often a limitation to how much change can be expected if the work itself is designed in a way that,

not only inhibits a favourable outcome, but is detrimental to the health of employees (Dessler, 1979; Dessler & Duffy, 1984; Cohen, Fink, Gadon & Willits, 1980; Hinshaw & Atwood, 1984; Stoner, 1982).

An alternative assumption is presented by job design models. These models assume that favourable work outcomes are more likely to occur if the job itself is restructured (Brannon, Smyer, Cohn, Borchardt, Landry, Jay, Garfein, Malonebeach & Walls, 1988; Campion & Thayer, 1987; Clegg, 1984; Dessler, 1979; Fried & Ferris, 1987; Hackman & Oldham, 1980; Pierce and Dunham, 1976; Pierce, Dunham & Cummings, 1984; Stoner, 1982).

Although job structure is partially determined by the task the organization needs to carry out and the technology available, independent choices regarding structural arrangements and the pattern of local control are still possible (Clegg, 1984). Clegg's (1984) theoretical work structure model explains that there is a choice that organizations can make about how to design jobs in order to deal with the environment and obtain maximum performance. In an organization that is heavily dependent on the skills and knowledge of its workers, for instance, a structure can develop that Mintzberg (1983) calls a "Professional Bureaucracy". This he defines as being ".....democratic, disseminating its power directly to its workers and provides them with extensive autonomy" (p.205). The organization can

decentralize some of its control because the necessary skill and knowledge has been standardized, although usually during a lengthy training period outside the organization. Control is maintained by monitoring and evaluation of outputs (Clegg, 1984).

2.4.1 Approaches to Designing Jobs

Campion and Thayer (1987) found that there were basically four major approaches to designing jobs - biological, perceptual/motor, mechanistic, and motivational. The approaches differ mainly in their emphasis on outcomes and values.

The biological job-design approach, based on the sciences of body movement, work physiology, occupational medicine, and the study of body measurement (Campion & Thayer, 1987) aims to ensure that the design of jobs does not exceed the physical capabilities of workers. Given that the work in PCHs requires heavy physical labour, performed primarily by women, consideration of this approach is becoming important, especially in the field of ergonomics. Work and Safety regulations are being adjusted as conditions, such as back injury, are costly both for the employee and the organization (Joint Adjustment Committee, 1988).

The perceptual/motor approach, is based on experimental psychology research and focuses on human capabilities and limitations in regards to attention, concentration, and

physiological and psychological responses (Campion & Thayer, 1987). A repetitive job provides little stimulation, which results in activation decline followed by the substitution of activities such as daydreaming and errand running.

Both the biological and the perceptual/motor job design approaches have important outcomes, such as improved health, potential increase in job satisfaction, and more effective use of workers, but fail to be broad enough to serve as a conceptual model.

The mechanistic approach to job design reflects the classic management and industrial engineering values of time and motion studies of the early 1900 (Campion, 1988; Campion & Thayer, 1987. Emphasis is on simplification, division of labour, routinization, ease of supervision and replacement, monetary rewards, and strong centralized management (Dessler, 1979; Hackman & Oldham, 1980; Stoner, 1982).

Charles Babbage, an early proponent, stressed the division of labour and believed that each worker would then become more proficient, fewer errors would be made, training time would decrease and workers would be more easily replaced. Taylor expanded the theory to include financial rewards as motivation for increased performance and an emphasis on matching the employee with the demands of the job (Dessler, 1979; Hackman & Oldham, 1980; Stoner, 1982). Foyal, another proponent of the classical organization theory, (Stoner, 1982) also favoured a strong centralized form of management.

The mechanistic approach is seen as producing valuable outcomes, such as efficiency, decreased training time, higher utilization level, lower likelihood of error, and less chance of mental overload (Campion and Thayer, 1987). Unfortunately, negative outcomes, such as lower job satisfaction, lower motivation, higher absenteeism (Campion & Thayer, 1987), apathy and boredom (Dessler, 1979), and sometimes an underutilization of people in the work force (Hackman & Oldham, 1980) make the mechanistic approach inappropriate for professional nurses.

The functional method of providing nursing care (used by many PCHs) is an example of the mechanistic approach. In this method the required nursing care is divided into smaller, specific tasks and assigned to various staff members, not just nurses, according to the complexity of the task and the qualification of the worker (Marram van Servellen, Schlegel & Bevis, 1974). Functional nursing has also been associated with decreased job satisfaction (McClure et al, 1983).

The motivational approaches to job-design emerged in response to worker dissatisfaction with the mechanistic approach. Motivational approaches attempt "...to design work in a way that achieves high work productivity without incurring the human costs that are associated with traditional approaches" (Hackman & Oldham, 1980, p.52) by enhancing the motivational nature of jobs.

Changes in the design of jobs based on motivational theories are known as job enrichment. Included in this are increases in the number and variety of tasks that are performed in the work setting and increases in the degree to which job incumbents control the planning and execution of the job and participate in setting organizational policy (Pierce & Dunham, 1976). Generally, positive outcomes of job design approaches using motivational theories are said to include, higher job satisfaction, higher job motivation, greater job involvement, higher job performance and, lower absenteeism (Campion & Thayer, 1987). Difficulties sometimes encountered with motivational approaches to job design include, increased training time, lower staff utilization levels, greater chance of mental overload and stress, and higher financial cost (Campion & Thayer, 1987).

2.4.2 Motivational Job Designs

The Human Needs model is one example of a motivational approach to job design. Early behavioural scientists sought to improve on the mechanistic approach by pointing out that this approach neglected the higher level of needs governing human behaviour (Dessler, 1979).

Abraham Maslow developed a hierarchy of human needs theory which is often used by behavioural scientists. Based on observations in his practice as a clinical psychologist (Dessler, 1979), he identified five categories of needs - physiological, safety, social, ego, self actualization. He

theorized that these become active only when succeeding lower level needs are satisfied.

Douglas McGregor (1960) also saw the weakness of the mechanistic approach in that it ignored the higher level needs of employees. He described the higher level needs as (1) those that relate to self-esteem, like self respect and self confidence, autonomy, achievement, competence and knowledge, and (2) those like the need for status, recognition and respect, that relate to reputation. He argued that organizations would meet the needs of their employees and utilize their potential better if they assumed that people can find work to be a source of satisfaction and will commit themselves to an organization not only through coercion but because the above higher level needs are met.

Frederick Herzberg applied the concept of two level needs to the workforce, in his two-factor Motivator-Hygiene theory (Herzberg, 1968). He argues that providing hygiene factors such as good company policies, working conditions, and salary is essential to avoid job dissatisfaction but not sufficient to avoid motivational problems that show up as decrease in employee production, and increase in turnover and absenteeism. To stimulate motivation it is necessary to address factors intrinsic to the job itself. Employees, Herzberg says, are motivated positively by challenging jobs which provide achievement, growth, advancement, recognition and enjoyment of the work itself. His suggestion to problems of motivation was

job enrichment. That is, designing jobs with built in motivators aimed at higher level needs.

A successful application of job enrichment using Herzberg's theory was instituted at AT&T (Ford, 1969). Guidelines for implementation were generated and beneficial results for both the organization and the employees were obtained. Most employees appeared to have experienced more job satisfaction, production increased, and absenteeism and turnover decreased.

Replication of Herzberg's study, using employee self report methodology, has resulted in similar results (Dessler, 1979). Studies using more objective methods have sometimes found less support for Herzberg's theory (House & Wignor, 1967). One possible explanation is that there may be overlap between hygiene satisfiers and motivators (King, 1970). Another explanation is that the determinants of job satisfaction and performance are more complicated than is explained by this theory. Victor Vroom also offers another explanation of why Herzberg's two level approach is not consistent. Employees, according to him, tend to blame other, extrinsic factors for dissatisfaction and take credit for themselves for their satisfaction (Dessler, 1979). Hackman & Oldham (1980), also point out the difficulty of measuring the motivating factors making empirical testing diagnosis difficult.

Nursing studies using Herzberg's theory indicated that an overlap between satisfiers and motivators exists for nurses (Hinshaw & Atwood, 1983; Pincus, 1986; Simpson, 1985; Ulrich, 1978). Using the Minnesota Satisfaction Questionnaire, Simpson found that nurses expressed dissatisfaction not only with hygiene factors but also with motivating factors. Although his results were generally consistent with Herzberg's theory, Ulrich (1978) found that nurses expressed dissatisfaction with two specific intrinsic factors, excessive responsibility and lack of achievement opportunity.

There seems, however, to be agreement that, although oversimplified, Herzberg's theory is useful in looking at motivation in the workplace (Dessler, 1979; Hackman Oldham, 1980; Simpson, 1985; Stoner, 1980; Ulrich, 1978). Hygiene factors are essential, but relatively finite, but motivators can have powerful, longer lasting effects.

Motivational approaches to job design also include cognitive models, like the expectancy and equity theories, which are based on rational decision-making processes. The expectancy theory postulates that employees will perform effectively if the rewards are of value to them and if they believe that it is possible that their performance can result in obtaining a reward (Charns & Schaefer, 1983; Dessler, 1979; Simpson, 1988; Stoner, 1982). The equity theory as defined by Stoner (1982, p.463) posits that not only is the reward important but individuals' subjective evaluation between their

effort/reward ratio and the effort/reward ratio of others in similar situations. Nursing studies have found a strong relationship between a nurses' expectation of the job with turnover and job satisfaction (Hindshaw & Atwood, 1984). The basic criticism of the cognitive theories is that most people do not always employ a rational decision making process (Dessler, 1979; Roberts and Glick, 1981).

The recognition that social systems influence how work is performed and that they affect the health of employees led to the development of another motivational approach to job design, the sociotechnical approach. Social systems are examined for compatibility with health, safety and with a democratic working life (Johnson, Johansson & Hall, 1988, p.631). The sociotechnical approach looks at ways that social systems and technology can be integrated to the benefit of the organization and the individual (Deutsch, 1988). One health care system study pointed out the need for such an approach. The researchers found that the high degree of horizontal and vertical fragmentation resulting from the use of the prominent medical and administrative models contributed to patient and personnel dissatisfaction, a lack in staff development, as well as personnel health problems (Gustavsen, 1989).

The job characteristics theory is the last motivational approach which will be discussed. This approach focuses on the development of job characteristics that "..create conditions

for high work motivation, job satisfaction, and performance " (Hackman & Oldham, 1980). This theory also recognizes that individuals respond differently to the same job.

Turner and Lawrence (Hackman & Oldham, 1980) found that the more a job included attributes like variety, autonomy, opportunity for interaction, knowledge and skill, and responsibility, the greater was employee satisfaction and the less absenteeism occurred.

Hackman and Lawler's work provided further evidence of the effect of measurable job characteristics on employee attitudes and behavior. Their prediction, that the job characteristics of variety, task identity, autonomy and job-based feedback would act as a self generating incentive, was generally supported by their research. Differences in reactions to job characteristics were explained in terms of an individual's need for growth and development at work (Oldham & Hackman, 1981).

2.4.3 Hackman-Oldham Model

Hackman and Oldham (1980) developed a job characteristics model of job enrichment incorporating the motivational approaches of job design (Figure 1). Work outcomes in this model are not those resulting through changes in the job context but with the job itself. The model also goes beyond job enlargement (increasing the number of horizontal work functions and job depth (giving the employee more autonomy) to

focus on job characteristics that can improve work outcomes (Northcroft & Neale, 1990; Stoner, 1984). A job is considered to have a motivating potential if the following five core job dimensions are present.

2.4.3.1 Job Characteristics

Skill Variety: The degree to which a job requires a variety of different activities in carrying out the work which involve the use of a number of different skills and talents of the employee.

Task Identity: The degree to which a job requires completion of a whole and identifiable piece of work from beginning to end with a visible outcome.

Task Significance: The degree to which a job has a substantial impact on the lives or work of other people.

Autonomy: The degree to which the job provides substantial freedom, independence and discretion of the employee in scheduling the work and in determining the procedures to be used in carrying it out.

Feedback from the Job Itself: The degree to which carrying out the work activities results in employees obtaining direct and clear information about the effectiveness of their performance.

2.4.3.2 Work Outcomes

Hackman-Oldham (1980) suggest that integration of the above job characteristic can foster work outcomes of: (1) internal work motivation; the job itself becomes motivating, (2) personal growth satisfaction; satisfaction with the opportunity for personal growth and learning, (3) job satisfaction with the work itself, often expressed by a decrease in absenteeism and turnover, and (4) work effectiveness, especially in terms of quality goods and services produced.

2.4.3.3 Psychological States

These researchers further theorize that the effect of job characteristics is mediated by certain critical psychological states the jobholder experiences. These psychological states are described as: (1) experienced meaningfulness of work - the feeling that the work is important in one's own value system; (2) experienced responsibility for the results of the work - the belief that one is personally accountable for the outcome; and (3) knowledge of results - an awareness of whether one's job is performed well or poorly. The model suggests that these psychological states are not directly manipulable in designing or managing work but that job characteristics, which can enhance psychological states, are open to manipulation. Based on various research, Hackman and Oldham (1980) identified specific job characteristic that create specific psychological

states. This is well summarized by Hackman and Oldham as follows (1975). Experienced meaningfulness of the work is enhanced primarily by skill variety, task identity and task significance. Experienced responsibility for work outcomes is increased when a job has high autonomy and knowledge of results is increased when a job is high on feedback.

Jobs high in motivating potential will, according to this model, not affect all individuals in the same way. Three conditions are seen as able to moderate the outcomes of job restructuring using the above job characteristic guidelines. First is the knowledge and skill possessed by the jobholder. If the jobholder is not capable of doing the work there will not be a positive reinforcement of the work itself. This model is considered to be a job enrichment approach and so a second necessary condition is the value the jobholder has for personal growth and accomplishment. A third aspect to consider is how satisfying the employee considers the job context to be. Poor working conditions can negate positive psychological states created by the richness of the work itself.

2.4.4 Model Limitations

Although the Hackman- Oldham model has been found to be a useful aid in planning job design changes and in guiding research, several limitations have been noted that should be considered when interpreting results (Fried & Ferris, 1987; Hackman & Oldham, 1980; Pierce & Dunham, 1976).

While a multidimensional job characteristic model seems to be most representative of job structures, not all studies have supported the five job dimension model (Fried & Ferris, 1987). Related to this is also the lack of clarity regarding the relationship between job characteristics and psychological states. Job feedback and autonomy, for instance, have been found to influence most of the psychological states described by the model (Fried & Ferris, 1987; Hackman & Oldham, 1980). Various explanations for this inconsistency have been offered (Hackman & Oldham, 1971; Kulik, Oldham & Langner, 1988). Job dimensions, for instance, may not be completely independent and so a certain amount of overlapping between the characteristics exists. Alternatively, the instrument used to measure job characteristics may not be sensitive enough to delineate the differences. Another explanation given for the inconsistent results of the five dimensions has been that outcomes are influenced by individual determinants. However, Fried and Ferris (1986) found that management jobs, younger workers, and educated workers were more likely to reproduce the five job characteristics suggested by the model. Registered nurses fit within this category and have demonstrated the appropriateness of the five job dimensions model. Studies of nurses, using the model, were able to successfully distinguish differences in job characteristics between nursing specialties (Joiner, Johnson & Corkrean, 1982)

and the specific job characteristics which contribute to job satisfaction (Deckard, Hicks & Rountree, 1986).

Considerable controversy also exists about the reasons for individual differences in reaction to job characteristics (Fried & Ferris, 1987; Gerhart, 1987; Roberts & Glick, 1981). Some studies suggest that dispositional factors are not stable and can be influenced by situational factors in the work place and over time (Gerhart, 1987; Kemp & Cook, 1983; Oldham, Nottenburg, Kassner, Ferris, Fedor & Masters, 1982). Ferris & Gilmore (1984), using a sample of nursing service employees in a PCH, confirmed J. Champoux's premise that a complex job can even substitute for a poor job context. Never the less, studies indicate that job complexity does have more explanatory power than just the employees' inherent characteristics (Gerhart, 1987) or situational factors (Oldham & Hackman, 1981).

Support for growth need as a moderator of the job characteristic effect has also not been consistent, but, generally, findings show that people with high growth needs enjoy a more complex job (Fried & Ferris; Roberts & Glick, 1981; White, 1978). Zierden (1980) in comparing the effect of job enrichment on employees with low growth needs with those with high growth needs, found that both responded positively to enriched jobs. Employees with low growth needs responded only somewhat negatively to the absence of both a rich job and an organic management style (allowing employees more autonomy)

while those with high growth need responded more negatively. This would thus seem to indicate that most employees would benefit from an enriched job and an organic management approach. More dramatic results of job enrichment have been obtained when a direct assessment is made of the desire for job enrichment (Cherrington & England, 1980) and when growth need strength is considered as a moderator between the relationship of job characteristics and job performance (Fried & Ferris, 1987).

Although many favourable outcomes, such as increased job satisfaction and quality performance, have been observed several, outcomes such as increased training time, greater chance of mental overload and higher financial cost have also ensued from job enrichment (Campion & Thayer, 1987).

2.4.5 Successful Model Implementation

In spite of these weaknesses the job enrichment approach to job redesign using the job characteristic model has been used successfully in a variety of settings (Hackman & Oldham, 1980) including nursing settings (Brannon, Smyer, Cohn, Borchardt, Landry, Jay, Garfein, Malonebeach & Walls, 1988; Ferris & Gilmore, 1984; Joiner, Johnson, Chapman & Corkrean, 1982) and PCHs (Brannon et al, 1988; Deckard, Hicks & Rountree, 1986; Rountree & Deckard, 1986). Evidence suggests that, generally, improved work related behaviour is associated with an enriched job (Dessler, 1979; Fried & Ferris, 1987;

Pierce & Dunham, 1976; Stoner, 1982). Better long lasting results have been obtained when (1) the organization is receptive to change (2) concurrent organizational changes, like decentralization of control and change from an autocratic, close supervisory style are implemented (3) the employees desire job enrichment and (4) if the need for change is correctly diagnosed (Hackman & Oldham, 1980).

In nursing settings the Hackman-Oldham model has been used successfully for the purpose of (1) confirming that the work of nurses in PCHs can provide job satisfaction (Rountree & Deckard, 1986), (2) increasing productivity (Guthrie, Mauer, Zawacki & Couger, 1985), (3) restructuring jobs (Brannon et al, 1988), (4) determining levels of practice (Roedel & Nystrom, 1987) and (5) comparing nursing specialties for motivating potential (Joiner, Johnson, Chapman & Corkrean, 1982).

Perhaps the most successful implementation of job enrichment, in the nursing context, is the primary nursing care delivery system (McClure et al, 1983; Andres, 1980; McClure, 1984). This is a change from the functional nursing care delivery system described previously. A comparison made by the project investigator (Andres, 1980) between the principles used in instituting primary care nursing and those suggested by Hackman and Oldham (1980), yielded a marked resemblance. The primary nursing care delivery system is a change from the functional nursing care delivery system

described previously. Total patient care becomes the focus for planning activities and staffing. It differs from other nursing care delivery systems in that staff nurses, usually registered nurses

1. are delegated responsibility and autonomy to plan and implement total nursing care.
2. are made accountable for this care.
3. hold colleagues accountable for the implementation of nursing care plans in their absence.
4. communicate directly with the physician and other health team workers to plan coordinated comprehensive patient care.
5. are assigned specific patients on admission.

Critics of the primary nursing care delivery system, as with other job enrichment programs, have noted that sometimes there is an associated increase in cost, some nurses do not desire more responsibility and autonomy, and that organizational adjustments (like decentralization and head nurse role changes) are necessary (McClure, 1987). For the most part the increase in authority and autonomy is said to result in greater job satisfaction for many nurses and improved care and satisfaction of patients (McClure et al, 1983; Ciske, 1974; Marram van Servellen, Schlegel, & Bevis, 1974; McCarthy & Schifalacqua, 1978). Primary nursing also decreases the need for direct supervision, allowing for the decrease in the number of supervisory staff. Henry (1990)

found that although the research to date is limited and mostly anecdotal, a modified primary nursing care model in long term care is possible within a limited budget. An increase in job satisfaction for nurses and a decrease in family and resident complaints was observed.

2.4.6 Model Suitability for this Project

The Hackman-Oldham model is well suited to be used for this project. Not only is the focus on outcomes of job satisfaction and quality performance in congruence with that of City PCH, but the suggested moderators - necessary skills and knowledge, growth need strength and context satisfaction - apply well to registered nurses in Manitoba.

In the near future nurses in Manitoba will be required to complete a baccalaureate degree in nursing as the minimum education for entry to the practice of nursing in Manitoba. This will mean that nurses will possess even more knowledge and skill, and they will be capable of taking on an expansion in their role as caregivers.

An increasing number of nurses are also coming into the profession from educational programs that have stressed professionalism, autonomy and the need for personal growth (Comartin, 1986; McClure, 1984). Fried and Ferris (1986) found that employees with increased education and position levels better fit the five job dimension model.

Nursing unions are not only working to improve "hygiene" factors such as salary and working conditions but are also influencing nurses to demand an expansion of their role in the health care system (Burton, 1986; Chernecki, 1985; MONA, 1989; Simpson, 1985).

All the above lend confidence in the use of the Job Characteristic Model in the job structure of registered nurses.

2.5 Summary

The literature reviewed for this project clearly shows that job structure is an important determinant of the work outcomes of job satisfaction and quality performance of registered nurses in PCHs. Furthermore, examining the work structure of registered nurses in PCHs is valid because they are important to the care of elderly. It would also be reasonable to conclude that using the Hackman-Oldham Job Characteristic Model is appropriate for this project. Various modified primary nursing care systems, for instance, which incorporate the job enrichment principles suggested by the model, have already been successfully implemented by various health care institutions. Based on this literature review, the job structure of registered nurses was examined in order to assess if changes in job design could facilitate quality care and job satisfaction.

CHAPTER 3

METHODOLOGY AND PROCEDURE

3.1 Introduction

As discussed previously, this practicum project was designed using a needs assessment approach. The job structure of registered nurses was examined, using the concept of triangulation to look at data from a variety of sources, to determine if any changes in job design could facilitate increased quality nursing care and job satisfaction at City PCH. The project investigator selected the Job Diagnostic Survey (JDS), content analysis of various organizational documents, a literature review, and an orientation process, as methods to aid in the identification of any changes in job design which could facilitate job satisfaction and quality care. The methodology, including the planning process, data collection and analysis for this project, is outlined in this chapter. Included are also issues of validity and ethical consideration.

3.2 Setting

City PCH is a 150 bed non-profit personal care home whose primary purpose (Statement of Philosophy and Purpose, 1986) is to provide a home and multi-disciplinary therapeutic services

to elderly persons unable to live at home because of physical or mental disability and\or because of care-giver inability to provide care at home. City PCH also provides care for the most disoriented, whose behaviour is deemed to be disturbing if placed in the regular living areas, in a separate ten bed Special Care Unit. Two of the beds at City PCH are available to the community for the respite of caregivers who need relief from heavy caregiving duties. All except two rooms are single occupancy.

Another purpose for City PCH is as a resource to the community by becoming more involved in meeting the needs of the elderly and their families and in formal and informal education of health professionals, volunteers, and family members.

City PCH was founded by a group with a common religious and cultural background whose aim was, and still is, to serve those in need in their community. Although it now receives funding from the provincial government and operates under license of the Manitoba Department of Health, the founding group retains moral and legal responsibility for all operations of the PCH.

A 1991 nursing dependency assessment by the Manitoba Health indicated that 70% of City PCH residents require three and four levels of nursing care, considered to be the highest levels of functional disability. The remainder have been evaluated to need level two nursing care. City PCH, as most

other PCHs, has for the last few years experienced pressure from the community to admit a greater number of residents that require a high level of nursing care. PCHs in Manitoba are only funded to provide nursing care to 60 percent of residents requiring level of care over two. Admitting a higher percentage of residents requiring high levels of nursing care means not only that more staff is required, but that a larger number of the staff need to be professional nurses. The present ceiling in funding creates a great deal of pressure on nurses to cope with a heavier work-load as City PCH succumbs to community pressure and takes on a higher percentage of elderly which require maximum care. A profile outlining City PCH's organizational structures and processes is found in Appendix A.

3.3 Project Planning

This practicum project was initiated in response to an invitation from City PCH's previous Director of Nursing. The planning and development of this project was carried out in collaboration with, and support of, the Board and Management of City PCH, based on their expressed interest in promoting quality nursing care and job satisfaction. Permission for instituting a project at City PCH was granted by its Board of Directors. The project was planned in collaboration with a new Director of Nursing who was particularly interested in restructuring the job of registered nurses.

3.4 Methodology

According to Seashore (1983), the best determination of need for change can be made if the assessment methodology is multifocal and if a triangulation methodology is used. In accordance with this observation, the following assessment methods were selected for this practicum project:

(1) The Job Diagnostic Survey

The staff nurses' perception of their job structure was examined using the Job Diagnostic Survey (JDS) developed by Hackman and Oldham (Appendix B). This questionnaire was administered by the project investigator to assess the characteristics and the motivating potential of the registered nurses' job at City PCH.

The JDS was also used to examine the perception that a non-staff nurse group on the work of the registered staff nurse. The questionnaire was administered to nurses working in a management and educator capacity. This was done in order to obtain another perspective of the work of registered staff nurses.

(2) Organizational Documents

Various organizational documents such as organizational charts, job descriptions and routines, Statement of Philosophy and Purpose, and organizational policies and procedures were examined to obtain information regarding their possible effect on job design.

(3) Literature Review

The literature was reviewed for examples of the use of the Hackman-Oldham Job Characteristics Model and the JDS, which have resulted in increasing quality care and job satisfaction. This was done to gain a better understanding of the results obtained in this project and to facilitate the comparison with norms established by other research projects.

(4) Orientation Process

The project coordinator received an orientation to the facility. Included in this orientation were five days spent on the various shifts observing the work of registered nurses and discussions with staff nurses about the characteristics of their work. Also, included were several meetings with the Administrator, Director of Nursing, the Staff Development Coordinator and the Evening Supervisor to clarify their role and to obtain a greater understanding about the nursing service department at City PCH. This information was used to verify the data obtained from other sources.

3.5 Sample and Nurse Recruitment

The population of interest for this project was all registered nurses employed by City PCH at the staff nurse level. Included were nurses working full time, part time and on a casual basis, regardless of length of employment. These registered nurses shared a common job description.

Prior to implementation of data gathering and orientation of the project investigator, a meeting was held for all nurses and letters of information were sent (Appendix C). All registered nurses in the nursing service department were informed about the purpose and methodology of this practicum project and given an opportunity to ask questions. Times for the administration of the questionnaires were scheduled and posted throughout a one month period of time. The time and day varied with the work schedule in place at City PCH and at the convenience of the nurses.

3.6 Data Collection

Various data sources and collection methods were used as outlined in Table 1.

3.6.1 The Job Diagnostic Survey

In order to operationalize their model, Hackman and Oldham (1975) developed the Job Diagnostic Survey (Appendix B). Based on the previously described theoretical framework, the JDS was developed for the purpose of diagnosing existing jobs to determine if, and how, they might be redesigned to improve employee productivity and satisfaction and for evaluating the effectiveness of job changes (Hackman & Oldham, 1974).

TABLE 1. DATA COLLECTION

Data Source	Method	Time Frame
Staff Registered Nurses	JDS	Administered over 1 Month
Management and Education Nurses	JDS	Administered over 1 Month
Organizational Documents	Original Documents Examined	Duration of the Project
Literature Review	Written Notes	Duration of Project
Investigator (based on orientation)	Written Notes	Varied with the Event

The JDS uses a Likert style questionnaire to obtain quantitative measures of

"1. The objective characteristics of jobs, particularly the degree to which jobs are designed so that they enhance the internal work motivation of people who do them.

2. The personal affective reactions of individuals to their jobs and to the broader work setting.

3. The readiness of individuals to respond positively to jobs which have high measured potential for generating internal work motivation" (Hackman & Oldham, 1974, p.1).

Copies of the JDS and information and advice on its use was received from Roy W. Walters & Associates, a management consulting firm using the JDS. The JDS was administered following the directions of the developers of this instrument, Hackman & Oldham (undated text received from Roy W. Walters & Associates).

Only the biographical information section of the JDS was adapted by the author of this practicum to better suit the background of the participants (Appendix D).

In accordance with the above directions, the questionnaire was administered by the investigator to small

groups of participants in a meeting room at City PCH during work periods. The times varied to accommodate the work of the participants. The JDS administration occurred on all three shifts, day, evening, and night.

3.6.1.1 Process of JDS administration

The project investigator was present throughout the completion of the JDS. She distributed the JDS with an accompanying response sheet to each respondent just prior to completion of the questionnaire. The groups included both staff nurses and educational and management nurses. An explanation of the project, as outlined in the letter sent to all nursing staff (Appendix C), was offered to everyone and given when requested. The voluntary nature of the project was stressed and that participation could be withdrawn at any time.

The project investigator explained that the purpose of the questionnaire was to ascertain the nurses' perception of the job of staff nurse at City PCH and requested that respondents fill in all blanks. Any questions arising during the completion of the JDS were answered by the project investigator. Respondents were asked not to discuss or compare answers while completing the questionnaire.

Upon completion of the questionnaire, the respondents were requested to insert the response sheets into a common envelope. The biographical section was placed into the

envelope separately so that the responses could not be identified by the handwriting. The project coordinator did not examine the response sheets, instead she mailed them to Roy W. Walters & Associates for quantitative computer analysis. The response sheets were destroyed upon project completion, only the computer analysis of the questionnaires is held by the project coordinator.

3.6.2 Organizational Documents

A second source of data for this project was a variety of non-confidential organizational documents. Documents examined included: organizational and nursing departmental policies and procedures, administrative manual, organizational and nursing department organizational charts, personnel policies, nursing department job descriptions, nursing departmental routine for delivering care, and organizational committee structure. The documents were examined using the Hackman-Oldham Model (Figure 1) as a guideline. The core job dimensions (skill variety, task identity, task significance, autonomy, and feedback) and moderators of the core dimensions (knowledge and skills, growth need strength and context satisfaction) were used as themes to gather and structure information. These themes were interpreted as defined by the developers of the model as summarized previously. This information is outlined in City PCH's profile developed by the project investigator (Appendix A).

3.6.3 Orientation Process

As already indicated, the investigator obtained an orientation to the facility and to the work of registered nurses in order to better evaluate results and develop recommendations. Five days were spent observing what work nurses performed and in engaging them in informal discussion. No evaluation was made regarding the quality of their work. Part of this orientation also consisted of semi-structured interviews with: the administrator, the director of nurses, the evening supervisor, the staff development coordinator and the nurses union supervisor. Informal written notes were made and used in the development of a City PCH profile.

3.6.4 Literature Review

The literature was reviewed to gain a better understanding of job structures and of how the principles of the Hackman-Oldham model have been successfully adapted in the workforce. This is summarized in chapter two and was used in developing recommendations.

3.7 Data Analysis

3.7.1 Job Diagnostic Survey

Completed questionnaires were sent to Roy W. Walters & Associates, an American management consulting firm which provides computer analysis services. Roy W. Walters &

Associates compiled the quantitative data based on the following elements of the Hackman-Oldham model: (1) five core job dimensions, (2) psychological states, (3) feedback from supervisors and others, (4) individual growth need strength, (5) satisfaction with job context (pay, security, social, supervisory growth), and (6) affective responses (general satisfaction and internal work motivation).

The scoring method has been described by the developers of the JDS (Hackman & Oldham, 1980). According to this information, the scores for the individual elements are calculated on the basis of values from 1 (lowest) to 7 (highest) chosen by the participants for each question. Each element has specific questions assigned to it. The average obtained from all the questions pertaining to each particular element is then calculated. Score profiles are computed and expressed as the average score for each group. Questionnaires completed by staff nurses were analyzed separately from those completed by the other group of nurses. Only cumulative data is reported for each group.

The overall Motivating Potential Score (MPS) for the job being examined is calculated based on the averages obtained for each element using the following formula (Hackman & Oldham, 1980).

$$MPS = \frac{\text{Skill Variety} + \text{Task Identity} + \text{Task Significance}}{3} \times \text{Autonomy x job feedback}$$

3.7.2 Other Data Sources

A content analysis methodology was used to give meaning and structure to the collected data obtained from the remaining data sources. Core job dimensions and the moderators, as developed and defined by Hackman & Oldham in their model and discussed previously, were used as themes to guide the analysis. Qualitative information based on the perception of the investigator, was obtained from the examination of organizational documents and from the orientation experience. Evaluation of the information was based on the investigator's literature review and her past experience as a registered nurse. The profile describing City PCH (Appendix A) summarizes this qualitative information. The qualitative data was used to verify the quantitative data obtained from the JDS.

3.8 Validity

3.8.1 Job Diagnostic Survey

The reliability and validity of the JDS was determined by the developers by using data obtained from 658 employees, working at 62 different jobs in 7 organizations (Hackman &

Oldham, 1975; Hackman & Oldham, 1974). The JDS questionnaire was administered to employees and a companion instrument, the Job Rating Form, which measures only job dimensions, was completed by supervisors and outside observers. Employee work performance was rated by management. Absentee data was examined by the researchers as another measure of job dissatisfaction. Normative data for JDS results was developed based on 6930 respondents for 876 different jobs in 56 United States organizations (Hackman & Oldham and Stepina, 1979).

There is general agreement that the JDS' measures of the five core job characteristics of variety, autonomy, identity, significance and feedback, have reported reliability above 0.70 (Hackman & Oldham, 1971; Oldham & Hackman, 1981; Pierce & Dunham, 1976; Rountree & Deckard, 1986). Concerns have, however, been expressed about the validity of this measurement, both in terms of construct validity and internal validity (Fried & Ferris, 1987; Roberts and Glick, 1981). The JDS, for instance, relies heavily on the perception of job incumbents which leads to the question of whether this perception can indicate objective measurement of job characteristics. However, Sims, Szilagyi and Keller (1976) point out that it is not only the objective job characteristics, but also the perception of them, that is important in determining their effect. Hackman & Oldham report (1981), that there is substantial convergence between employee, supervisor, and observer job rating. This is further supported

by a meta-analysis performed by Fried and Ferris (1987). These conclusions lend a fair degree of validity to the measurement of job characteristics using employees' perceptions.

Another validity concern is the intercorrelation among the five core job characteristics and the inconsistent replication of the five core job dimensions that has been observed (Fried & Ferris, 1986; Hackman & Oldham, 1975), especially among skill variety, autonomy, and task significance. Oldham & Hackman (1981) report this to range between 0.20 to 0.48, with a median of 0.35. Explanations for this has been that the concepts are not completely independent and that the instrument is not sensitive enough (Hackman & Oldham, 1971; Kulik, Oldham & Langner, 1988). Fried and Ferris (1986) found that management staff, younger workers, and educated workers were more likely to reproduce the five-factor solution suggested by the model. Registered nurses would seem to fit into this category. Nursing studies, using the JDS, were able to identify differences in job characteristics between nursing specialties (Joiner, Johnson & Corkrean, 1982) and the specific job characteristics which contribute to job satisfaction (Deckard, Hicks & Rountree, 1986). Although results are not conclusive at this time, indications are that a multidimensional model of not more than five dimensions is appropriate and that the Motivating Potential Score (MPS), a total score obtained from measurement of the five job

characteristics, is a good predictor of the work outcomes described by the researchers (Fried & Ferris, 1987).

Hackman & Oldham (1971) report that, generally, the relationships among the JDS dimensions are substantial and in the direction predicted by their model. This also demonstrates a certain amount of instrument validity as the models predictions are verified. An analysis of variance, to test for the ability of the JDS to differentiate between jobs, reached statistical significance for all of the JDS dimensions, according to Hackman and Oldham (1980).

3.8.2 Orientation Data

The project investigator recognizes that the use of a more structured approach to observation of the work of registered nurses and interviews could possibly have increased the validity of this data. Seashore (1983), who developed this type of approach to job analysis based on the Hackman-Oldham model found this method to be very time consuming and requiring the observer to be very well trained. The scope and time frame of this practicum project did not allow for this more structured approach, combined with the JDS. Furthermore, the observation quidelines are not well developed as yet. The project investigator increased the validity of the data obtained from observations and interviews in three ways. One way was to use the themes established by the model to analyze the content of her written notes. The second was to discuss

her interpretation of observations with the Director of Nursing and staff nurses. A third way was to use this data to verify the results obtained from the JDS and thus use more than one method.

3.8.3 Organizational Documents

As with information obtained from the orientation process, the qualitative data obtained from organizational documents relies heavily on the perception of the investigator and thus a decrease in validity can result. The validity of the data obtained from the content analysis of organizational documents was increased similarly to the ways discussed above. The already discussed job dimensions and context variables were used as themes to guide the collection and analysis of data, investigator perceptions confirmed by nursing staff, and the information used to verify the data obtained from the JDS.

3.9 Ethical Consideration

Ethical factors were considered and maintained throughout the course of this practicum. Prior to proceeding with the practicum and the administration of the JDS, permission was obtained from City PCH's Board of Directors and Management Committee. Furthermore, approval was obtained from the Ethical Review Committee of the University of Manitoba School of Nursing (Appendix E). The project was also discussed with representatives of the nursing union at City PCH.

Participation in the project was strictly voluntary and clearly indicated through written and verbal means. In addition, information as to the purpose and use of the data was provided to potential participants so that they could make an informed choice. Information was provided via a letter to all potential participants, a meeting open to all nurses, and through personal discussion with any nurse who desired clarification (Appendix C).

Confidentiality of persons involved in the project was protected since all questionnaires were anonymous and only cumulative data is reported. Furthermore, reports and publications will not identify where the project was conducted. The JDS was administered by the investigator with no involvement of management and only the investigator and Roy W. Walters & Associates had access to the answered questionnaires. The developers of the JDS have found that respondents experience a greater degree of privacy and confidentiality when this method is used. Formal consent forms were not requested by the investigator in order to further protect the confidentiality of participants as no written record of who participated was kept. Only the computer analysis of the questionnaires will be retained by the project investigator, all other raw data was destroyed after completion of the project.

The cost, in terms of time, to participants was minimal. The JDS took approximately 20 to 30 minutes to complete and

was administered at City PCH at a time most convenient for the participants. In contrast, the information procured through the project has potential benefit for staff nurses and City PCH. Completing the JDS gave nurses an opportunity to indicate their perception of their job structure and their desire for change of this structure. The Director of Nurses received information which can help guide decision-making for further job changes which are in line with the wishes of her staff. All participants were given the opportunity to receive information as to project results.

3.10 Limitations of the Project

This practicum project has some limitations. The project focuses only on the work of registered nurses, for instance, even though the work in PCHs is interconnected with many other health care workers. As the literature indicated, registered nurses are essential in the provision of quality nursing care and as the nursing service department makes up a large percentage of the facilities total budget, examining their job structure can be an important first step. If changes in nurses' job structure are found to be effective, the same approach can be used to asses the work of other employees. In addition, the JDS results can also be used as a basis for measuring the effects of job structure changes.

Although the specific results of this project are limited to City PCH, the resulting information could be useful to

other PCHs in Manitoba who are planning changes in job structure. Results may also confirm that nurses working in PCHs can experience job satisfaction. This is useful information in the recruitment of nurses and potential nursing students.

The JDS relies heavily on the perception of job incumbents (Roberts & Glick, 1981). The relationship between job characteristics, and performance and job satisfaction, which is the focus of this project, however, seems to be sufficiently captured by employees' perceptions (Fried & Ferris, 1987; Gerhart, 1988; Sims et al, 1976). To partially compensate for this perceived limitation, a comparison was made between the perceptions of staff and non-staff nurses regarding the registered nurses' job structure.

The questionnaire methodology, also, presents inherent limitations in that responses may be based on misunderstanding or bias and can apparently, be "faked" (Argyris, Putnam & Smith, 1985; Jenkins, Nadler, Lawler, & Cammann, 1975; Nadler & Jenkins, 1983). On the other hand, the JDS possesses characteristics which makes it advantageous for this project. This questionnaire was developed by experienced and well recognized management researchers and has been used extensively. Compared to other methods such as observation and interviews, the questionnaire also does not depend heavily on extensive expert knowledge and experience, is not time consuming and costly, and a larger sample size can be obtained

for the same expenditure in time and cost (Cammann, Fichman, Jenkins & Klesh, 1983). Thus, this investigator was able to sample all registered nurses. The triangulation methodology used also helped to compensate for the limitation of relying on information obtained solely from the questionnaires.

A final limitation noted by the project investigator is that the needs assessment approach is often accused of lacking the rigor of classical experimentation. The approach is, nevertheless, an important and effective tool which is used extensively by organizations and management consultants (Argyris, Putnam & Smith, 1985; Cohen, Fink, Gadon, & Willits, 1980; Seashore, 1983). It should, therefore, be an appropriate tool for a practicum project. This project investigator is confident that the replication of a research based, well recognized model and measurement tool lends credibility to this project and can contribute to a broader understanding of the effects of job design on job satisfaction and quality nursing care.

CHAPTER 4

Findings and Interpretation

4.1 Introduction

The Hackman-Oldham model of job design was used to guide the collection of data as described in the last chapter and to express and interpret the findings. The results from the JDS are presented in this chapter. Reported are also the findings that emerged from a comparison between results obtained from the analysis of City PCH's staff nurses' JDS with (1) City PCH manager and educator group JDS results, (2) norms established by Hackman & Oldham (1980), both for general job groups and for professional job groups (which include registered nurses), and (3) scores obtained by nursing researchers using the JDS in other job situations (Deckard, Hicks & Rountree, 1986; Joiner, Johnson, Chapman & Corkrean, 1982; Rountree & Deckard, 1986). Integrated in the presentation of JDS findings is information resulting from an examination of various organizational documents, information gained by the project investigator during the orientation process, and from the literature reviewed.

4.2 Job Diagnostic Survey

The JDS was constructed to measure variables presented in the Hackman-Oldham model of work motivation (Figure 1) for a

minimum sample size of four (Hackman & Oldham, 1980). The JDS measures the job characteristics (skill variety, task identity, task significance, autonomy, and job feedback), the current levels of motivation and satisfaction, and the level of growth needs (desire for an enriched job). The survey also provides a measure of the job's overall motivating potential (MPS). Included in the JDS are measurements of two job characteristics not part of the model; feedback from others and dealing with others. Feedback from others directly or indirectly involved in the work supplements information on feedback from the job itself. Dealing with others reflects the extent to which the job requires work with other people (Hackman & Oldham, 1980).

Two variables presented in the model but not measured by the JDS are the of level of employee knowledge and employee work effectiveness (quality of work performance). The authors (Hackman & Oldham, 1980) explain that since these two factors are specific to an organization, generalization across organizations is meaningless and so cannot be measured by the JDS.

All scores are expressed on a 7 point scale, where 1 is low, 4 is neutral or the median, and 7 is high. Five is the first positive score on the answer scale and therefore scores of around 4 and below may be indicative of problem areas. The total motivating potential score (MPS) can range from 1 to 343. A range from 200 to 343 indicates a well designed job. A

100 to 200 range indicates that, generally, the job is acceptable, but parts of the job could be improved. A score below 100 is considered to be poorly designed. According to information received from Roy W. Walters & Associates, an MPS of 125 is considered the base level for a well designed job. The above information for a well designed job was used as a guideline and the scores obtained were compared to this guideline.

Normative data for various existing job categories has been established by Oldham and Hackman (1980) based on research projects both across different jobs and for related jobs (Table 2).

This normative information was based on data obtained from approximately 6,930 employees working on 876 jobs in 56 organizations in the United States. The American Dictionary of Occupational Titles' description was used to establish job categories. Registered nurses were included in the professional and technical category. This normative data is not based on organizations with "ideal" job structures.

In order to get a better understanding of how City PCH's scores compare with the above normative data, the project investigator calculated confidence intervals for the Hackman-Oldham normative data and for City PCH means using a coefficient of 0.95 (Table 3). The confidence intervals for the normative data were based on information found in a 1979 document Norms for the Job Diagnostic Survey by Oldham,

TABLE 2. JDS SCORES FOR CITY PCH AND OTHER STUDIES

Organization	City PCH			Hackman-Oldham Data[1]				R.N.[2]	Other Specialties[3]		
	Nurses		Management	General Average		Professional		L.T.C.	M/S	Psych.	Other
JDS Descriptor	Mean	S.D.	Mean	Mean	S.D.	Mean	S.D.	Mean	Mean	Mean	Mean
Skill Variety	4.6	1.23	4.8	4.5	1.7	5.4	1.0	5.8	5.77	5.14	6.06
Task Identity	3.7	1.37	3.5	4.9	1.4	5.1	1.2	5.1	4.25	4.79	4.82
Task Significance	6.2	0.78	5.9	5.5	1.3	5.6	0.95	6.1	6.21	5.71	6.33
Autonomy	4.9	1.18	5.2	4.8	1.4	5.4	1.0	5.7	5.04	5.10	5.51
Feedback From Job	4.5	1.04	4.5	5.0	1.4	5.1	1.1	5.3	4.91	4.69	5.19
Feedback From Others	3.6	1.34	3.3	4.0	1.6	4.2	1.4				
Dealing With Others	6.5	0.55	6.2	5.3	1.3	5.8	0.96				
Meaningfulness Of Work	5.7	1.18	5.7	5.1	1.1	5.4	0.87	5.7			
Responsibility For Work	5.6	0.80	5.5	5.5	0.90	5.8	0.72	6.0			
Knowledge of results	5.0	1.16	4.4	5.2	1.1	5.0	0.99	5.3			
General Satisfaction	5.2	1.25	4.7	4.6	1.2	4.9	0.99				
Internal Work Motivation	5.9	0.64	5.7	5.4	1.0	5.8	0.65				
Pay Satisfaction	5.2	1.47	4.2	4.3		4.4	1.5	4.6			
Security Satisfaction	4.6	1.32	3.1	5.0		5.0	1.2	5.9			
Social Satisfation	5.7	0.72	5.3	5.4	0.90	5.5	0.85	6.3			
Supervisory Satisfaction	4.9	1.30	3.1	5.3	1.3	4.9	1.3	6.1			
Growth Satisfaction	5.0	0.99	4.4	4.8	1.3	5.1	1.1				
Individual Growth Need	5.0	0.77	4.9	4.8		5.6	0.57				
Motivational Potential	107.0	55.74	111.0	125	73	154	55	171.2	139	129	166

[1] Hackman and Oldham (1980), used with permission, Addison-Wesley Publishing Co.

[2] Rountree and Deckard (1986), used with permission, American College of Health Care Administration.

[3] Joiner, Johnson, Chapman and Corkrean (1982), used with permission, J.B. Lippincott Co.

Hackman and Stepina. Unfortunately the exact individual sample size for the professional/technical job category was not available and so a conservative estimate was established based on the number of groups sampled (72) times four, the minimum number per group recommended by the above authors.

4.3 Project Findings

JDS results for City PCH staff nurses and the management and educator group as well as standard deviations for staff nurses' means are presented in Table 2. Included in this table are overall average means based on a variety of jobs and professional means compiled by Hackman and Oldham using the JDS (1980) and means for several nursing specialties. Joiner, Johnson, Chapman and Corkrean (1982) report core job dimension scores and motivational potential scores for registered nurses working in the nursing specialties of medical-surgical (M/S), psychiatric (Psych.), and other specialties (Other).

Rountree and Deckard (1986) report on core job characterisitics of work performed by nurses in a variety of long term care (LTC) facilities and on the nurses' perceived psychological state, specific satisfaction and the job's motivating potential.

Information gathered by way of various organizational documents and from the project investigator's orientation is

TABLE 3. COMPARISON OF CITY PCH JDS RESULTS WITH CONFIDENCE INTERVALS FOR NORMATIVE PROFESSIONAL JOB MEANS [1]

JDS Descriptor	City PCH			Professional [2]		
	Mean	LCL	UCL	Mean	LCL	UCL
Skill Variety [3]	4.6	4.11	5.25	5.4	5.28	5.52
Task Identity [3]	3.7	3.13	4.39	5.1	4.96	5.24
Task Significance [3]	6.2	5.84	6.56	5.6	5.49	5.71
Autonomy	4.9	4.35	5.45	5.4	5.28	5.52
Feedback From Job	4.5	4.02	4.98	5.1	4.97	5.23
Feedback From Others	3.6	2.95	4.18	4.2	4.04	4.36
Dealing With Others [3]	6.5	6.25	6.75	5.8	5.69	5.91
Meaningfulness Of Work	5.7	5.37	5.92	5.4	5.30	5.50
Responsibility For Work	5.6	5.24	5.98	5.8	5.72	5.88
Knowledge of results	5.0	4.31	5.39	5.0	4.89	5.11
General Satisfaction	5.2	4.62	5.78	4.9	4.79	5.01
Internal Work Motivation	5.9	5.64	6.24	5.8	5.73	5.88
Pay Satisfaction	5.2	4.54	5.90	4.4	4.23	4.57
Security Satisfaction	4.6	4.02	5.24	5.0	4.87	5.14
Social Satisfaction	5.7	5.37	6.03	5.5	5.40	5.60
Supervisory Satisfaction	4.9	4.34	5.54	4.9	4.75	5.05
Growth Satisfaction	5.0	4.54	5.46	5.1	4.97	5.23
Individual Growth Need [3]	5.0	4.67	5.39	5.6	5.53	5.67
Motivational Potential [3]	107.0	81.23	132.47	154.0	147.0	160.0

[1] Based on a confidence coefficient of 0.95 and Standard Deviation given in Table 2

[2] Estimated sample size of 288

[3] Significantly Different

summarized in a City PCH Profile (Appendix A). This was used to validate JDS results and will be presented as part of the interpretation.

4.3.1 Biographical Information (Table 4)

The biographical information obtained from the participants was analyzed separately from the JDS. Eighteen (90%) out of a possible twenty staff nurses responded. Only two casual nurses declined. Not surprisingly, the majority of nurses were female. The largest number of nurses were between 1-50 years old. None of the respondents was younger than 31 years. This is similar to the findings in other long term care facilities (Cotler, 1987; Deckard, Hicks & Rountree, 1986). All had a comparable basic nursing education background from a diploma school of nursing. One nurse had a baccalaureate nursing degree and another a baccalaureate arts degree.

4.3.2 JDS Findings and Interpretation

The steps outlined by the developers of the JDS were used in interpreting project findings (Hackman & Oldham, 1980; Hackman, Oldham, Janson and Purdy (1975). These steps will be referred to below.

4.3.2.1 Work Outcomes

One of the most important steps is to relate the existing level of job satisfaction and quality of performance to job structure. This step is based on the Hackman-Oldham' premise

TABLE 4. BIOGRAPHICAL INFORMATION

Gender	Age Category	Education
Male ---- 1	20 - 30 --- 0	Diploma (Nursing) --- 18
Female --- 17	31 - 40 --- 5	Baccalaureate (BN) --- 1
	41 - 50 --- 8	Baccalaureate (BA) --- 1
	51 - 65 --- 5	Nursing Specialty Psychiatry --- 1 Rehabilitation --- 1

that better changes to job structure can be made if the need for change exists and desire for change is present. Information from this step can also be used as a baseline for measuring the effects of change.

1. Job Satisfaction

Job satisfaction is the first outcome of interest for this project. The JDS is constructed to measure only the affective reactions to a job, such as satisfaction and internal work motivation. City PCH's 5.2 JDS score for general job satisfaction is moderate indicating that registered nurses at City PCH appeared to be moderately satisfied and happy with their jobs. As already noted, a score of 5.0 is the first positive score on the scale of 1 to 7 used by Hackman and Oldham. This response is similar to the average professional score of 4.9 and overlaps with its confidence interval (Table 3). This finding was consistent with information obtained from conversations with staff nurses. Reinforcing this perception was the low absenteeism and turnover rate. Records showed that a very low turnover exists as only one nurse left in the last two years although no job shortage existed in Manitoba at this time. Even though job satisfaction is only one factor associated with absenteeism and turnover it has been shown to be an important precursor (Hackman & Oldham, 1980; Hinshaw & Atwood, 1984; Kramer & Schmalenberg, 1991; Larson, Chikamoto,

Brown & Shorr, 1984; Miller & Norton, 1986; Registered Nurses Association of British Columbia, 1989; Seybolt, 1986).

JDS results under the section identified as specific satisfaction, that is satisfaction with pay, security, social, supervision and growth, further support the above observations that a moderate degree of job satisfaction exists (Table 2). These satisfaction scores for City PCH range close to the moderate score of 5.0, are similar to scores for other groups and overlap with the confidence intervals established for the professional job category.

As well moderate satisfaction appears to be present with the opportunity for self-direction and personal accomplishments (growth satisfaction 5.0), a score congruent with the average need for growth also 5.0. Nevertheless a sign that the opportunity for staff growth may be less than desirable is the frequent mention of the decrease in funding for educational projects.

Even though nurses at City PCH appeared to possess a level of job satisfaction, the formation of a local nurses' union reflects a degree of dissatisfaction. The formation of a union was sudden and unexpected as City PCH nurses had rejected unionization for many years. The past rejection was based on the fact that benefits at City PCH were comparable to those at health care facilities with unions and unionization was not considered necessary. Because ratification of a first contract had not occurred at the time of administration of the

JDS, the project investigator did not examine documents relating to unionization. Informal conversations with registered nurses at City PCH revealed that salary was not the issue. The JDS score for pay satisfaction supports this observation. The 5.2 mean is higher than that recorded for other groups and falls just inside the upper confidence interval established for the professional group. The reasons for unionization appeared to stem from several important organizational changes that were instituted by management within the last two years. Changes which registered nurses identified as affecting their job satisfaction included: (1) sudden dismissal of a popular director of nurses; (2) alterations in the nursing service organization, staffing pattern, and work routines (3) the introduction of more supervisory nursing staff; (4) unclear criteria for the placement of staff into available positions; and (5) decreased funding for educational purposes. Common themes developed as reasons for the sudden decision to unionize. Nurses at City PCH, for instance, perceived that the above changes were made by management without consultation with the nurses and with little communication as to the reason and purpose for these changes. They appeared to find that these changes resulted in an unclear and unsatisfactory distribution of tasks and a feeling of job insecurity. The perception of job insecurity seems to be reflected in the low 4.6 score. While in line with the management group, the score for job insecurity appears

lower than for other nurses in long term care. With the current lack of nursing jobs in Manitoba one would expect the perception of job insecurity to increase. The above are prevalent reasons given in the literature for union formation and strikes (Hibberd, 1992; Imberman, 1989; Roberts, Cox, Baldwin & Baldwin, 1985).

Dissatisfaction with communication between management and staff was frequently expressed by both staff nurses and by management. This dissatisfaction can be inferred from the very low 3.6 score obtained for feedback from others and the borderline score for supervisory satisfaction (4.9). Satisfaction with supervision is particularly low in comparison with the 6.1 score reported for other nurses in long term care. City PCH management group's perception of how nurses view satisfaction with supervision (3.1) is lower than the 4.9 score for the perception held by staff nurses. This difference in score may be seen as evidence that communication difficulties between the two groups exists.

2. Quality Work Performance

Quality work performance is the second outcome of interest for this project. The nursing service manual states that the criteria for measuring quality of nursing care is based on the Standards of Nursing Care developed by The Manitoba Association of Registered Nurses (1981). Since the JDS is not designed to measure quality performance directly

personal conversations with staff nurses, nursing and organizational managers and several indirect indicators of quality performance were relied upon to make the assumption that the existing degree of quality of nursing care provided by registered nurses was acceptable to City PCH.

Job satisfaction, for instance, can be one indirect indicator of quality performance. Research findings linking performance with job satisfaction have been historically inconclusive but a meta-analysis of cumulative research findings on job satisfaction and performance revealed a stronger positive association than previously thought (Hummel, 1985). The argument is made that job satisfaction cannot be ignored when quality performance is desired. Based on this reasoning, the general job satisfaction that appears to be present for registered nurses at City PCH would indicate that a degree of quality performance is present.

A stronger argument for this assumption can be made by considering the JDS score for internal work motivation. In their research studies Hackman and Oldham found indications that the degree to which employees are self-motivated to perform effectively is related to the quality of their work (1980). They explain that employees with an innate motivation to perform well have a greater potential for quality work. The internal work motivation for registered nurses at City PCH is reported as being fairly high, 5.9. This compares favourably

with the average for professionals (5.8) and one could anticipate an acceptable performance level.

A more direct although general measurement of performance quality is the facility-wide quality assurance program in place at City PCH. Conversations with nursing managers indicate that they appear to be generally satisfied with the quality of registered nurses' performance. Tools to measure the quality of nursing care are not yet well developed (Hodges & Icenhour, 1990; Tayler & Haussmann, 1988) and not surprisingly the auditing tool used at City PCH is useful only as a general indicator of quality performance. A significant limitation of the nursing service auditing tool can be attributed to the fact that its development was based on standards for registered nurses but is used to measure the total care given by all levels of staff. This makes registered nursing interventions difficult to isolate and evaluate. Furthermore, identifying nursing intervention outcomes is difficult because the auditing tool focuses primarily on structure and process rather than outcome. Ongoing evaluation and the initiation of appropriate policy changes may be slow as the audit committee making recommendations only meets four times per year. The usefulness of this tool as a feedback mechanism to nursing staff is also questioned because no permanent committee existed at the time data was collected due to a lack of staff willing to volunteer.

Quality care improvements are realized when feedback from residents and families is obtained through mechanisms such as Resident Councils and resident conferences. The multi-disciplinary meetings involving residents and families and the Resident Council provide City PCH with an indicator of the quality of care as perceived by the recipients and their families. Even though resident and family views are not used as a quality indicator, staff use this information in planning and improving the quality of nursing care.

Another important indicator of quality care is the voluntary, national accredidation process participated in by City PCH. City PCH's 1990 review resulted in the renewal of accredidation, but for a shorter length of time, indicating a need for improvement. A recommendation for the nursing service department was to review its excessive use of the medical model approach in providing nursing care.

This brief survey indicates that although a degree of both job satisfaction and quality performance did in fact exist, there was evidence that a closer examination of the job structure was desirable. For example, there appeared to be dissatisfaction with the distribution of tasks and the use of the medical model. As discussed in the literature review, these have been associated with a decrease in both job satisfaction and quality performance. This same literature also shows that job structure can be an indirect indicator of job performance and job satisfaction.

4.3.2.2 Motivational Potential Score

When indications are present that a degree of dissatisfaction with the job structure exists and that improvement in performance appears to be desirable, the second step in the process of interpreting JDS findings is the examination of the motivational potential score. This score indicates the overall potential of a job to foster internal work motivation, that is the degree to which an employee is self motivated to perform effectively. The total motivational potential score is calculated using the scores obtained for each of the five job dimensions. The average MPS for staff nurses at City PCH was 107, lower than the norm of 125 held to be a base score for a well designed job using the concepts of the Hackman-Oldham model. This score is significantly lower than the 154 mean MPS for the professional group. The difference becomes even greater when compared to the scores reported for registered nurses in other long term settings (171.2).

Consultants and researchers using the JDS agree that jobs with a MPS between 100 and 200 are generally well designed but that parts of the job may require change.

4.3.2.2 Job Characteristics or Job Dimensions

The third step looks at the individual job characteristics to determine what aspects of the job are

causing the difficulty. An advantage of examining specific job characteristics is that particular strengths and weaknesses can be identified. This identification can assist in determining the need for change and point out which parts of the job need particular attention.

During the orientation to City PCH the investigator gained the perception that nurses felt their work to be generally motivating, challenging and extremely important. Unprompted statements such as "I like working with residents in PCHs and feel it to be important work" were commonly made during conversations. The nurses believed their work had substantial impact on the lives of the residents and their families and on the work of the personal care aides. Frustration existed with the lack of opportunity to be involved in planning resident's care and in doing a job from beginning to end with a visible outcome. Comments such as "my influence over the care given to a resident, ends at the end of the shift" and "is often limited by the necessity of performing essential but routine tasks such as giving medications and treatments" indicated to the project investigator a degree of frustration. Other frequent comments by registered nurse reflected frustration with their inability to influence organizational policies and to communicate with management, statements like "Management does not listen to us".

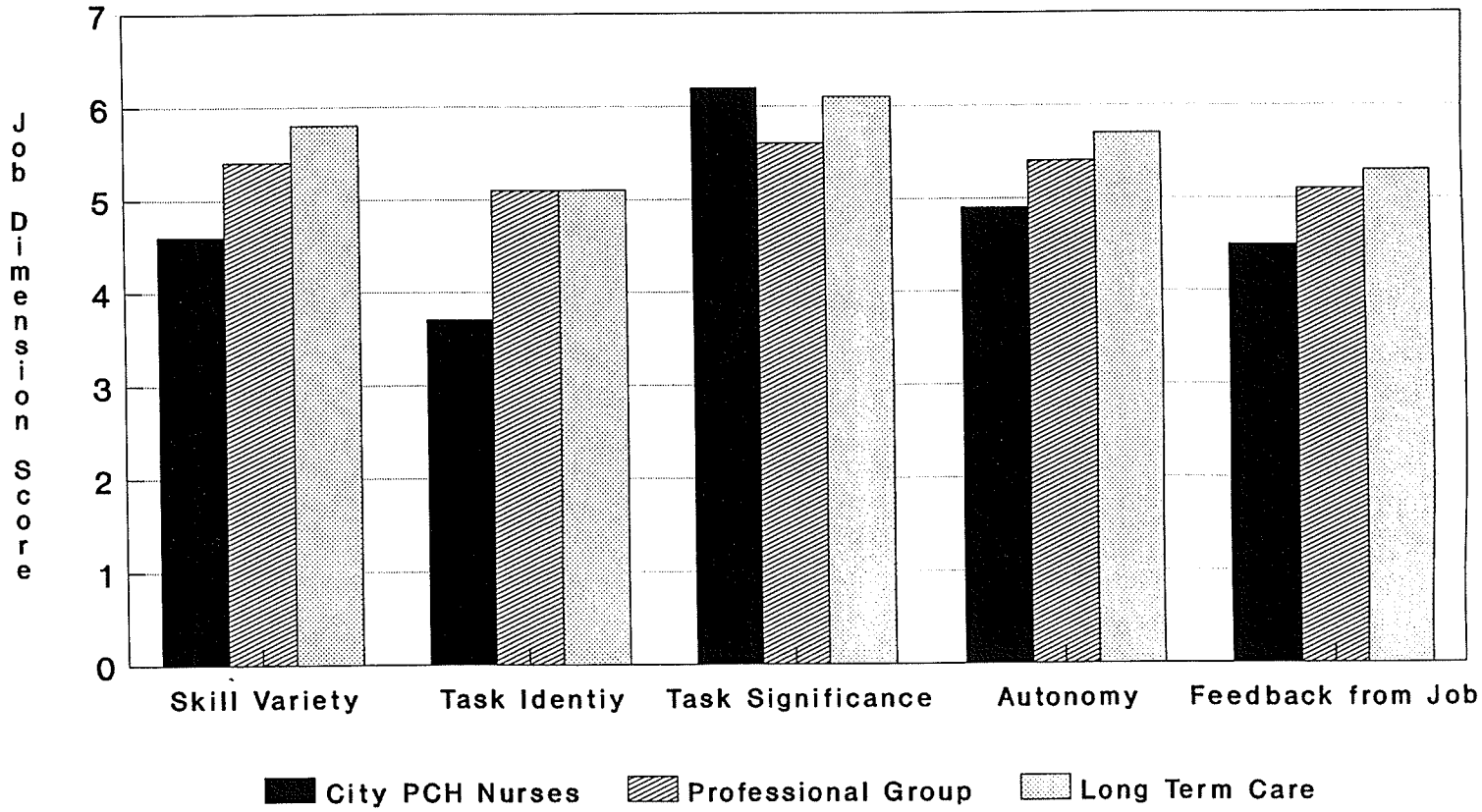
The job dimension results of the JDS for staff nurses at City PCH discussed below mirrored the investigator's perceptions. Figure 2 depicts the core job dimension score results in relation to the 7 point continuum scale of the JDS. A score of 7 indicates a job high on that particular job dimension, 1 the lowest score on the continuum and five the first indicator of a good design.

1. Task Identity

The low score on task identity (3.7) suggests that the degree to which the job requires the completion of a "whole" and identifiable piece of work - doing a job from beginning to end with a visible outcome - may be one aspect of the job that could be improved. Supporting this observation is the fact that the score is well below the lower confidence limit for the professional group.

In contrast to this low score on task identity is the high score, 6.5, for the degree to which the staff nurses' job requires them to work closely with other people. The need for staff nurses to work closely with others was confirmed by conversations with staff nurses and by observation and examination of the nurses' job description and ward routines. The need to work closely with the resident care coordinators (head nurses) and personal care aides was especially evident.Staff nurses relied heavily on personal care aides both for observation of changes in residents and to provide

Figure 2. Comparison of Job Dimension Score for City PCH Nurses, Professional, and Long Term Care Nurses*



*Hackman and Oldham (1980), Rountree and Deckard (1986) -- used with permission

residents with help for all activities of daily living. The result was often fragmentation of the staff nurses' work process which was exacerbated by assigning important functions, such as admission data gathering and care planning, to resident care coordinators. Staff nurses performed these additional functions only at the discretion of the resident care coordinator. Staff nurses' continuity with planning care for a particular resident was not consistent. Furthermore, nurses were required to incorporate directives and suggestions from physicians and other professionals such as social workers and occupational therapists. This need to work closely with other groups in conjunction with difficulty in task identity may reflect that the work of caring for the residents was fragmented among several category of staff.

The use of the medical model may also have contributed to the sense of low task identity. As already described, the use of the medical model often results in work fragmentation and a decreased control over work outcome contributing to both job dissatisfaction and decreased quality of nursing care.

2. Feedback

Not only does there appear to be a perceived lack of control by staff nurses for work outcome (task identity) but also a lack in knowledge of work outcomes. Reduced knowledge of work outcome appears to be evident in the modest score on feedback from the job itself (4.5). This is defined as the

degree to which carrying out the work activities results in employees obtaining direct and clear information about the effectiveness of their performance. Although not significantly different from other scores the 4.5 is not only below the acceptable level of 5.0 but the average score pertaining to feedback from others is low as well (3.6) and just within the lower confidence limit for professional means (Table 3). Work fragmentation may partially account for this lack of feedback but a low emphasis on nursing care outcome may be of equal concern. As the previous discussion on the quality assurance process suggests, a focus on outcome can serve as an excellent feedback mechanism.

Perceived difficulty in communication could have contributed to the possible reduced knowledge of work outcome as well. Staff nurses felt that there was a lack of clear information about their performance from supervisors and from others. Further supporting this perception was the recurring theme in conversations with both staff nurses and nurse managers that communication both up and down the hierarchy was not clear. Staff nurses often mentioned that management decisions did not reflect the information they had communicated to management. An examination of written information contained in the ward communication book suggested that the information flow tended to be in the form of directives down the hierarchy. Reinforcing the perception of one way communication was also the lack of a formal mechanism

like a committee where staff nurses and management could meet regularly and air their concerns. Registered staff nurses were represented at the departmental level on the Nursing Department Committee and the Interdisciplinary Team Committee and informally at weekly meetings with the director of nursing but staff nurses were not part of any committee which develops organizational policies. The fact that the nursing department had the largest number of employees was not reflected in organizational committee membership. Additionally, agendas for committee meetings were generally not set by staff nurses but by management.

Written interdepartmental communication regarding day to day activities was through a formalized 24 hour written report form that all departments were expected to use and through action memos. The use of action memos was a new communication tool developed by the Director of Nursing and could not be evaluated at the time. Indications were that this could be a potentially effective method of providing feedback.

3. Task Significance

In spite of the perception that communication was unclear, conversations with staff nurses supported the high JDS result for task significance (6.2). This score is outside the upper confidence limit for the professional group. Nurses stated emphatically that their work had a high degree of substantial impact on the lives and work of others.

Examination of staff nurses' job description indicated that they were in fact responsible for all aspects of the daily care of residents, for the work of the personal care aides, and for implementing treatments ordered by physicians. Nurses as part of their work are involved with a large number of people inside and outside the facility and through this have the potential to greatly affect the quality of care received by residents.

In contrast to the nurses' perception that their work was valuable was the view they held that their work was not valued by the organization. This theme emerged especially in conversations about their decision to unionize and is not unusual. Hibberd (1992) in an analysis of six recent province wide strikes concludes that administrators consistently fail to recognize the wide dimensions of nurses work focusing more on the fact that nurses are generally not prepared at university level while other professionals are.

4. Skill Variety

The nurses' perception that their work was not valued may be related to the surprisingly modest score (4.6) that the JDS showed for skill variety. Skill variety is the degree to which a job requires a variety of different activities in carrying out the work which involve the use of different employee skills and talents. There is a significant difference between City PCH score (4.6) and the score for other professionals

(5.4) as it falls just below the lower confidence limit. Additionally the skill variety score is lower than the score reported for other nurses in long term care (5.8). The lower score may be partially explained by the daily routine prescribed for registered nurses at City PCH. While their job description outlined a variety of tasks, tasks actually performed by registered nurses appears to be more limited. Investigator observation corroborated that the need to implement tasks such as administering medications and treatments leaves little time for assessment, supervision and planning which requires the use of the wider range of talents and skills that registered nurses possess.

The comparatively modest score could perhaps be explained by the rather tall, hierarchical organizational structure of the nursing department with its six levels of staff. Mintzberg (1983) notes that such an organizational structure dictates a fragmentation of the total work process which may not be appropriate for professionals. The assignment pattern used at City PCH, a mixture of team and functional nursing, reflects a fragmentation of work. The underlying philosophy of this assignment pattern is to utilize each member of the health team - registered nurses, licensed practical nurses and personal care aides - according to their capabilities. The team provides care to a group of residents under the supervision of the resident care coordinator or supervisor. The nurse in charge is responsible for the planning and

implementation of all nursing care to be given on a particular shift but the care itself is divided among several people. Due to the diversity and varying complexity of the tasks that need to be performed and the varying skills of the different levels of staff this pattern of work assignment requires a great deal of supervision and coordination.

5. Autonomy

City PCH's organizational structure could also explain the moderate score (4.9) on the fifth job dimension measured by the JDS - autonomy. Although not significantly different from the score for professionals or nurses in long term care the score is only within a low moderate range on the JDS continuum. Autonomy is defined as the degree to which the job provides substantial freedom, independence, and discretion to the employee in scheduling the work and in determining the procedures to be used in carrying it out. According to Mintzberg (1983) professional bureaucracies, like City PCH, depend on the knowledge-based skill of professionals. These professional bureaucracies can give considerable control over the professional work to employees because they rely on the standardization of skill professionals received through their educational process. City PCH staff nurses share a similar diploma educational background. Organizations sometimes respond to perceived problems of coordination, quality of work outcomes, or need for innovation with the introduction of

external control like increased direct supervision or standardization of work processes and outcomes which can reduce autonomy (Mintzberg 1983). City PCH has introduced such controls. Within the last year there was an addition to the supervisory nursing staff of a third resident care coordinator, an evening supervisor and an assistant to the director of nursing. Standardized ward routines and procedures for the care of residents were formalized and the expectation was that they be closely followed. Nursing care was monitored by monthly audits based on prescribed work processes.

In addition, several professions have a strong effect on how the nurses' work is carried out. This may also limit staff nurse perceptions of autonomy. The medical profession was especially influential in determining the work of nurses. Not only by way of direct orders but indirectly through the funding process. The funding body which assesses the requirement for registered nurses is greatly influenced by the number of physician ordered treatments and not by treatments initiated by nurses (Manitoba Health Assessment Guidelines).

4.3.2.4 Experienced Psychological States

Hackman and Oldham theorized that job characteristics do not directly affect work outcomes. Instead, the Hackman-Oldham view is that the psychological states mediate between the job characteristics (dimensions) and the affective and behavioural employee responses. In order to better understand the

potential effect of job dimensions the psychological effects of the job characteristics on employees need to be examined. The psychological impact of the job on employees can be determined by measuring meaningfulness of the work, responsibility for the outcomes of the work and knowledge of results.

1. Meaningfulness of the work

Contributing to the meaningfulness of work - the degree to which employees experience their job as one which is generally meaningful, valuable, and worthwhile - are the job dimensions of skill variety, task identity, and task significance. The high score (5.7) reported for the experienced psychological state of meaningfulness of the work reflects City PCH nurses' perception that their work has a very high and substantial impact on the physical and psychological well being of residents, families and co-workers (task significance). The perception that their work is significant may tend to obliterate the fact that (based on the low score for task identity and skill variety) their job could be more meaningful if more of their skills and talents were used and if they could complete more of the whole job (Hackman & Oldham, 1980). The literature on job satisfaction shows that work fragmentation, especially between planning and implementation, can cause the dilution of the meaningfulness of a job for nurses and possibly result in a decrease in

positive work outcome. The low score the JDS showed on the job dimensions of skill variety and task identity could indicate that 'the potential exists for this dilution of the experienced meaningfulness of the work carried out at City PCH. Staff nurses' perception that their work was not valued by managers and other professionals may also serve to dilute the feeling that the work is meaningful.

2. Responsibility for work outcome

Responsibility for work outcome - the degree to which the employee feels accountable and responsible for the result of their work - is the second psychological state said to be necessary for positive outcomes such as job satisfaction and quality care. Staff nurses at City PCH appear (based on the JDS result of 5.6) to have a high sense of responsibility for work outcome. This is not significantly different from other groups. For nurses a high sense of responsibility may not always lead to positive work outcomes. According to Ullrich (1978), nurses as a group have traditionally experienced a high sense of responsibility for their work but have not always found a great deal of responsibility to be a satisfying experience. The need to take on more responsibility when it co-exists with lack of experience, education, or autonomy was especially perceived to be dissatisfying to nurses. Simpson (1985) reports on a study which indicates that a discrepancy between a sense of responsibility and of the amount of

perceived autonomy can additionally be detrimental to the quality of nursing care. This discrepancy is explained by the observation of developmental psychologists that women's development is organized around central concepts of responsibility and care based on their own experience and perceptions (Gilligan, 1982). Imposed expectations and arbitrary requirements will be viewed as burdens (Belenky, Clinchy, Golberger and Tarule, 1986). Autonomy for City PCH is low (4.9) in contrast to the high score for sense of responsibility (5.6). The discrepancy between autonomy and the sense of personal responsibility may potentially affect job satisfaction and quality care.

3. Knowledge of Results

The lowest score noted in the JDS results for the three psychological states was that for knowledge of results (5.0). This is described as the degree to which employees know and understand, on a continuous basis, how effectively they are performing based on feedback from the job itself. This score reflects the low scores recorded by the JDS for the perception of feedback from the job itself (4.5) and feedback from others (3.6). Investigator observation coupled with the high score (6.5) for dealing with others point out that the work of staff nurses requires them to work very closely with other people. The combination of the need to work closely with others and the perception that nurses are not receiving a high degree of

feedback may decrease the quality of work performance and job satisfaction (Hackman & Oldham, 1980). This could occur because improvement in performance is more likely to happen if the result of work activities is known (Dessler, 1979; Hackman & Oldham, 1980). Job satisfaction often is more likely to result when the outcome of work activities is seen as positive not only by the employee but by others. Contributing to the perceived dissatisfaction with feedback could also be the low score expressed for skill identity. Registered nurses at City PCH appear not to have control over their job as a whole from beginning to visible outcome. Better outcome of nurses' work has been observed when nurses are able to focus more on the results of their work rather than performing only a small segment of the whole (Marram van Servellan, Schlegel & Bevis, 1974; Registered Nurses Association of British Columbia, 1989).

4.3.2.5 Moderators

The discussion of the findings of the JDS has focused on the relationship between job characteristics, their psychological effects and the potential work outcomes of job satisfaction and quality performance. Not all individuals respond to jobs with high scores on the core job dimensions with an increased degree of job satisfaction and quality performance. Factors which may moderate this relationship and are important considerations when making changes in job

structure are depicted in the model as moderators. Three moderators that Hackman and Oldham found to be especially influential are the knowledge and skills that the employees possess, the growth need strength, and satisfaction with the job context.

1. Knowledge and Skills

Hackman and Oldham reasoned that employees who lack the knowledge and skill to perform the necessary work could not be positively reinforced by a good performance. Enriching a job would tend to create more negative than positive feelings. The JDS is not designed to measure knowledge and skill. An indirect measure that City PCH staff nurses possess adequate skills for an enriched job can be found in staff records which show that all but two nurses are registered nurses. Furthermore the biographical data shows that the nurses have several years experience, not only as nurses, but in gerontological nursing. How much more knowledge and skills would be needed depends on the changes which would be made to the job structure.

2. Growth Need Strength

The second moderator described by Hackman and Oldham (1980) is growth need strength - a measure of how intensely the respondents feel the need for self-direction, learning, and personal accomplishment at work. Their theory suggests

that the more employees desire an enriched job the more likely they are to respond with an increase in job satisfaction and quality performance. The JDS is designed to measure how intensely the respondents feel the need for stimulation and how ready they are for changes in job content. The JDS score for City PCH (5.0) compares to the 4.8 general average and is outside the confidence interval established for professionals. Although this score appears to reflect only a moderate desire for an enriched job this may not preclude satisfaction with an enriched job. A study by Zierden (1980) fosters the notion that low growth needs may not be a barrier to job enrichment changes. He theorized that growth needs are sociologically derived expectations and that actual experience with an enriched job may be a better indicator of a successful outcome of job enrichment changes than a measurement of desire for one in itself. He found that job satisfaction occurred after the implementation of job enrichment not only for employees with a high degree of growth need strength but even for employees with low growth needs. This is an important finding for nurses as employee expectation is an important variable in nurses' job satisfaction and turnover (Larson, Chikamoto, Brown & Shorr, 1984; Seybolt, 1986; Simpson, 1988). Schutzenhofer (1988) described a study which demonstrates that socialization and expectation additionally affect registered nurses' ability and willingness to act autonomously. Nurses, as members of a group of physicians and consumers, consistently failed to

contribute opinions other than those expressed by physicians in the group. The author expressed the opinion that nurses were socialized to defer to the opinions of physicians and because this expectation has been internalized nurses find it difficult to act autonomously. Schutzenhofer (1988) suggests changes in nursing practice and education as ways to develop increased autonomous behaviour.

In order to obtain a better sense of the need to make changes to job structure the JDS developers suggest a comparison with the MPS. This is based on the assumption that motivational trouble ensues when people with high growth needs are assigned to a poorly structured job. Such a comparison between City PCH's JDS scores shows that there may be a less than good fit. The desire for an enriched job appears moderate while the motivation potential score of 107 appears comparatively low.

3.Satisfaction with the Work Context

The third moderator which was found by Hackman and Oldham to influence the relationship between job characteristics and work outcome was that of employee satisfaction with the context of the work (1980). Factors such as dissatisfaction with pay, job security, co-workers, and supervisors, can affect the willingness or ability to expend more energy on an enriched job. The JDS measures the degree of satisfaction with a few such context factors. Although staff nurses seemed to be

dissatisfied with job security, communication patterns, participation in making decisions perceived cut-back in funding and support for nurses' educational programs JDS indicated satisfaction with many aspects of their work context.

4.3.3 Nursing Management and Educator Group

Important to the interpretation of JDS findings is the perception of City PCH management and educator group who were asked to complete JDS questionnaires in order to present another perspective. The group consisted of seven respondents, 100% of the total eligible.

A comparison of the JDS findings for this group with the findings for staff nurses showed a marked similarity for most of the responses consistent with reports in the literature (Figure 3).

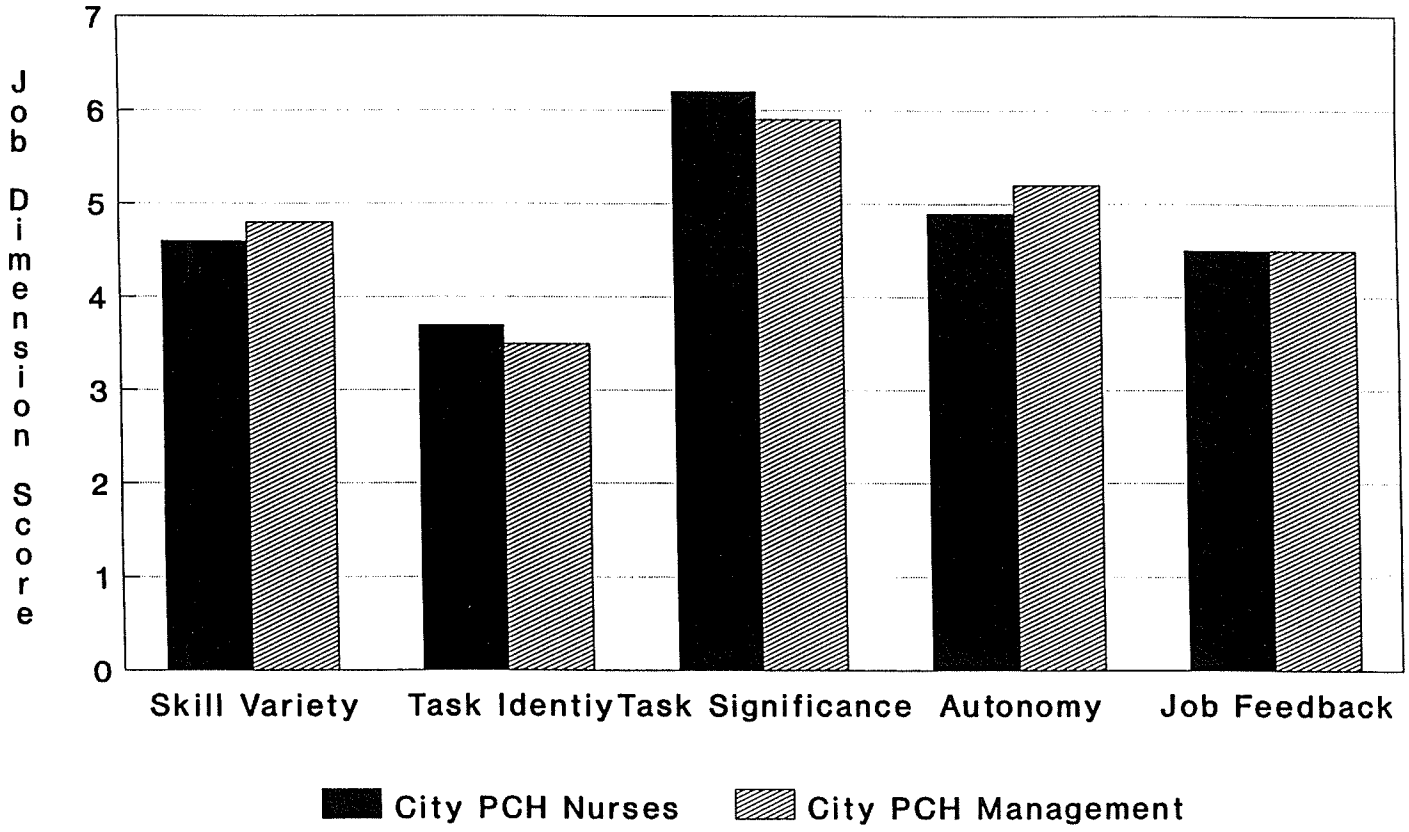
The section that manifested the greatest divergence was in the perception of the work context. Except for satisfaction with co-workers, the management group appeared to think that staff nurses were more dissatisfied with the work context than indicated by staff nurses themselves. Satisfaction with pay, job security, supervision, opportunity for growth all scored lower as by the management-educator group. This perception could be coloured by the negotiations with the union still in progress.

Another notable exception was the score of 4.4 obtained for knowledge of results. This could be a confirmation of the project investigator's previous comment that the management group also perceived a communication difficulty.

4.4 Conclusion

The practicum findings as interpreted by the project investigator in this chapter indicate that several changes in job structure could potentially result in increased job satisfaction and quality performance for staff nurses working at City PCH. Most notable is the job dimension of task identity, followed to a lesser degree by skill variety and feedback from the job. Supporting this conclusion is the MPS score which seems to indicate that although generally the job is satisfactorily structured some changes may be indicated. A discussion of recommended changes is found in the next chapter.

Figure 3. Comparison of Job Dimension Score for City PCH Nurses and Management Group



CHAPTER 5

Discussion and Recommendations

5.1 Introduction

The findings presented in the previous chapter were used as a basis for answering the questions established for this project. Additionally, the discussion and resulting recommendations for change were based on relevant findings in the literature and the use of the implementing principles described by Hackman and Oldham (1980).

The discussion and recommendations are organized to address the questions established for this practicum project starting with more general aspects and proceeding to more specific ones.

(1) Is the work of registered nurses employed at City PCH designed in a way that quality care and job satisfaction are likely to occur?

(2) Do the registered nurses desire change?

(3) What changes in the job design of registered nurses are more apt to facilitate quality nursing care and job satisfaction?

(4) Do organizational structures support a job design that is likely to provide quality care and job satisfaction?

5.2 Discussion and Recommendations

5.2.1

Is the work of registered nurses employed at City PCH designed in a way that quality care and job satisfaction are likely to occur?

The project findings indicated that staff nurses were moderately satisfied with their work and that management was reasonably satisfied with their performance. However, the motivating potential score 107.0 was lower than the Hackman-Oldham norm of 125.0 for a well designed job (Hackman and Oldham, Undated instructions for the administration of the JDS obtained from Roy W. Walters and Associates). Hackman and Oldham's experience has been that jobs with a MPS between 100 and 200 are generally well designed but changes to some parts may result in beneficial outcomes such as increased job satisfaction and quality performance. Changing parts of the staff nurses' job structure may thus result in increased job satisfaction and quality performance.

Recommendation 1

City PCH consider making changes to those parts of the job identified in this practicum as contributing to the low MPS. (Specific recommendations and examples as to how this could be done are discussed in section 5.2.3)

5.2.2

Do the registered nurses desire change?

An important consideration when making changes to job structures to effect enrichment is the need for change and the desire for change on the part of job incumbents. The Individual Growth Need Strength, an average of the groups individual scores for growth need, is designed to indicate the degree to which the group as a whole desires variety and stimulation from their jobs (Hackman, Oldham, Janson & Purdy, 1975). The score of 5.00 for City PCH reflects a desire for enriched work albeit to a moderate degree. This modest score need not preclude the success of integrating job enrichment changes.

The previously mentioned study by Zierden (1980), for instance, supports the notion that low growth needs may not need to be a barrier to job enrichment changes. He found that job satisfaction occurred after implementing job enrichment changes for both employees with a high degree of growth need and for those with low growth needs.

Registered nurses have shown excellent response to enriched jobs. Even though some fall into the category McClure (1984) called "blue collar" who may be less receptive to an enriched job, the number of nurses in this category is small. Kramer and Schmalenberg (1991) report that more than 80% of registered nurses surveyed indicated that enriched job

structures with job-related independence was very important. Primary nursing, a job enrichment structure presented earlier, has shown that nurses respond by increased job satisfaction and quality nursing care when exposed to an enriched job. An approach that accommodates both a diversity in growth needs and exposes individual nurses to job enrichment is the clinical career ladder. This type of work structure is based on the clinical competence and desire of individual nurses for an enriched job and has the added advantage of rewarding clinical competence and giving opportunity for horizontal promotion (Bracken & Christman, 1978; Elpern, 1977; McClure, Poulin, Sovie, Wandelt, 1983; Weeks & Vestal, 1983).

Essential to a successful implementation of a job enrichment model of nursing practice is not simply exposure to an enriched but a clear knowledge of what is expected of them as well as supportive organizational structures (Fairbanks, 1980; Zander, 1980). Haffer (1986) in a review of methods of effecting change recommends that modifications be keyed to needed changes and that a non-directive strategy is appropriate for those with moderate willingness to change. Additionally, education strategies are important both in clarifying held values and in establishing new ones.

Since indications that a moderate score in desire for an enriched job need not preclude changes in job structure if an appropriate strategy is used the following recommendation is made.

Recommendation 2

City PCH select changes that are desirable for an enriched job, as suggested in the next section, then clearly outline and communicate to staff nurses what these changes are and the intended outcome of these changes. Furthermore, involving staff nurses in this process and providing them with an educational program and opportunity for exercising a degree of latitude in participation, would increase the probability of success.

5.2.3

What changes in the job design of staff nurses are more apt to facilitate quality nursing care and job satisfaction?

5.2.3.1 Discussion

This section discusses specific recommendations emerging from the findings outlined in the last chapter. An advantage of examining specific job characteristics is that particular strengths and weaknesses can be identified. This strategy can assist in determining the need for change and point out which parts of the job need particular attention. The findings described in the previous chapter show that City PCH staff nurses, although basically happy with their work and its significance, do have concerns. Job characteristics embodied in these concerns appear to be similar to the medical model of work structure which often, as discussed in the literature

review, decreases nurses' job satisfaction and quality performance. Staff nurses (1) perceive the variety of tasks to be modest (organized around tasks such as medications and treatments and dependent on routines), (2) experience reduced identity with the work as a whole (work fragmentation) (3) experience low feedback from the job itself, (4) find that there is a need to interact with many others (division of labour), (5) experience only a moderate autonomy in organizing and making decisions about their work, and (6) perceive the feedback from others to be low (lack in interdisciplinary communication).

The low 3.7 task identity score is of special concern. As already noted task identity signifies a reduction in the degree to which staff nurses complete a job from beginning to end with a visible outcome and often results in fragmentation of the nurses' work process. An examination of the nursing process model helps clarify the low task identity score. As depicted in Figure 4, the nursing care process consists of five component parts: assessment, analysis (problem identification), plans (goal setting), implementation, and evaluation (Griffith & Christensen, 1982; Riehl & Roy, 1980). The evaluation component becomes the mechanism for feedback.

Figure 4

The Nursing Process

Assessment-->Analysis-->Plans-->Implementation-->Evaluation

<---- Feedback <-----

Although staff nurses at City PCH participate in all parts of the nursing process at various times, they do not carry out the complete process for either individuals or groups of residents. This is especially apparent in long term care plans for residents. Observations were that nurses spend a large amount of time on the implementation component of the nursing process, especially on physician ordered tasks such as administering medications and treatments, allowing less time for other aspects of the process.

The need to carry out specific, routine tasks (e. g. the administration of medication) could also explain the rather modest 4.6 score for skill variety and 4.5 score for feedback from the job. The large amount of time required to complete these tasks and the need to supervise personal care aides, left little time for the other component parts of the nursing process and for evaluating the outcome of nursing care. Apart from decreased job satisfaction and quality care the consequence may be less than optimum use of the many skills nurses possess.

Job enrichment systems such as primary nursing, clinical career ladder and case management have shown to be important in providing both job satisfaction and quality care (McClure, 1984; McClure, Poulin, Sovie, Wandelt, 1983; Registered Nurses Association of British Columbia, 1989; Sandhu, Duquette & Kerouac, 1992). Proponents of job enrichment systems view them as especially effective in correcting work fragmentation and in enlarging the scope of nursing practice (Culpepper, Ritchie, Sinclair, Stephens & Betz, 1986; Maas & Specht, 1990). This could be of special benefit to City PCH because, as was just pointed out, findings of this practicum indicate a possible work fragmentation and reduced task variety.

The success of introducing job enrichment forms of nursing practice has been shown to be contingent on how well the care delivery system has been adapted to the needs of a facility and on existing organizational conditions. Kramer (1990), based on her review of nursing care delivery systems, notes that although commitment to the principles of primary nursing was still held to be essential, diversity and experimentation was evident and that this experimentation is expected to continue into the 1990's. City PCH may need to experiment with various approaches to find a nursing care delivery system suitable for them.

Several determinants for successful adaptation were found in the literature. Patients' dependence on professional nursing care is one important determinant of the need for a

type of primary nursing system (Shukla, 1982). As discussed in the literature review, residents in facilities like City PCH may not require as much direct professional care as patients in critical care units, but their many chronic conditions require frequent assessment, evaluation, planning and a high degree of coordinated nursing care. A recent nursing care innovation in the delivery of nursing care is the case management system of nursing practice. A major difference from the primary nursing system is the recognition that not all patients need continuous managed care. The case manager concentrates on the planning, coordinating, and evaluating aspects of the nursing process and is more selective in the implementation of basic nursing activities than the primary nurse (Kramer, 1990). It may well be that that a type of case management system is more appropriate than a "pure form" of primary nursing for City PCH.

A second determinant for a successful adaptation of job enrichment is the length of time a patient stays in a facility (Kramer, 1990). Establishing a relationship with a patient who only remains a few days may not be realistic. In PCHs, on the other hand, where residents stay for long periods of time a system which promotes the development of a relationship between nurses and residents and their families becomes more feasible and important as the facility becomes "home" to residents.

A third determinant for adapting primary nursing to a facility is the number of registered nurses available who can take on the required work without a large increase in cost (Henry, 1990; Shukla, 1982; Zander, 1985). Zander (1985), in her evaluation of how primary nursing has been realistically adapted, found that an all registered nurse staff is not necessary. Enough registered nurses who can be held accountable for nursing care outcomes resulting from assessment, planning, and evaluation are nevertheless necessary. Henry (1990) reviewed the literature to determine the cost effectiveness of instituting primary nursing in PCH's. Her conclusion was that a modified system was cost-effective for non-profit nursing homes that do not need to increase the number of professional nursing staff and that primarily require only a change in accountability.

Since City PCH already has a large number of registered nurses and the results of this practicum project indicate that changes in job structure could result in both increased job satisfaction and quality care changes in the nursing care delivery system are indicated.

5.2.3.2 Specific Recommendations

Specific recommendations are made that are intended to increase task identity, job variety and job feedback taking into account the above ideas and using Hackman and Oldham's

principles for implementing job enrichment changes in job structure (Hackman, Oldham, Janson & Purdy, 1975). These principles include combining tasks, forming natural work units, establishing client relationships, vertically loading a job, and opening feedback channels. The implementing principles are designed to deal with specific job characteristic weaknesses but in actual application more than one job characteristic may be affected.

The job characteristic that received the lowest score on the JDS was task identity. Two implementing principles are suggested by Hackman and Oldham to address this perceived fragmentation of the whole work process; combining tasks and forming natural work units.

Forming Natural Work Units

A natural work unit for registered nurses encompasses the entire nursing process as shown in Figure 4. This would, of course, not involve daily 24 hour care. Nor would it be reasonable that registered nurses would implement all tasks that need to be performed. Instead, registered nurses would assess nursing care needs of specific residents, plan the necessary care, decide which tasks could best be done by others and be given authority to hold their colleagues accountable for the implementation of their nursing care plans when they are absent. Control of the whole work process remains with the nurse. The result of instituting such a

natural work unit could decrease work fragmentation and dependence on established routines.

Recommendation 3

City PCH consider restructuring the work process of registered nurses into natural work units, such as assigning each resident a specific nurse at admission who would be given continuing responsibility for the whole nursing process for that resident.

Vertical Loading

The delegation of the entire nursing process to individual nurses would also serve to combine tasks and so increase the variety of tasks for which nurses have consistent responsibility. Increase in skill variety does not only mean an increase in the number of tasks but also in the vertical loading of tasks. Vertical loading is said to occur when the gap between the implementation, planning and control of the work is narrowed (Hackman & Oldham, 1980; Herzberg, 1968). This could be achieved if registered nurses are held responsible for planning and implementing nursing care for individual residents and if in addition they are given the authority to oblige co-workers to put these into effect in their absence. Participation in evaluating nursing outcomes would further increase variety. Vertical loading can reinforce the feeling of autonomy when authority is granted to an

employee. City PCH's policies and procedures and highly prescribed daily routines would have to accommodate this change.

Recommendation 4

City PCH consider making vertical loading changes in staff nurses' job structure that would include implementation, planning, evaluation, and the control of nursing care outcomes.

Client Relationships

Establishing client relationships is another implementing principle that affects skill variety and autonomy. This is described as enabling employees to establish relationships with various consumers, clients and other employees directly involved in the work (Hackman, Oldham, Janson, & Purdy, 1975). These researchers suggest that apart from adding to the variety of tasks, autonomy is increased because employees can establish and maintain their own relationships.

Improved client relationships may follow if registered nurses at City PCH were given the responsibility of establishing relationships with family members and physicians of residents assigned to them and to consult directly with other health care professionals when necessary. Families, residents and other health care workers would likewise benefit

as they would not have to relate to a great number of staff nurses in order to have input into care plans.

Recommendation 5

City PCH consider providing staff nurses with more opportunity to establish increased direct client relationships by delegating the responsibility of gathering information and consulting with families and health care workers of residents assigned to the nurse.

Feedback Channels

Establishing client relationships, besides increasing the variety of the work, assist in opening feedback channels by providing additional opportunities for the individual staff member to receive information, praise and criticism. Feedback from the job itself only measured 4.5 on the JDS score signifying that changes may be necessary.

Another example of how feedback channels can be opened is through placing quality control measures evaluating work outcomes close to the employee (Hackman & Oldham, 1980). More direct information regarding nursing care outcomes would make it easier for staff nurses to take goal directed, appropriate action. This would have the added advantage of identifying the benefits of nursing interventions. Chart audits are performed at City PCH but there appears to be a lack of interest by staff. In addition, the auditing tool seems to emphasize

process rather than nursing outcomes. A written form, like a checklist for example, based on desired nursing care outcomes could be developed to guide nurses in monitoring outcomes resulting from nursing interventions. Alternatively, nursing care plans already in use at City PCH could be adapted for this purpose. City PCH management can still maintain control of quality of care by setting outcome standards, goals, and policies.

Recommendation 6

City PCH develop a process whereby registered nurses are able to monitor and evaluate the nursing care outcomes of residents assigned to them.

5.2.4

Do organizational structures support a job design that is likely to provide quality care and job satisfaction?

5.2.4.1 Introduction

Job enrichment reorganization has been found to be more successful if the need for change exists, if the shift is not instituted too quickly, if staff understands the changes and if the organizational climate supports and encourages these changes (Hackman & Oldham, 1980; Kramer & Schmalenberg, 1991; Raelin, Sholl & Leonard, 1985; Shukla, 1982; Zander, 1985). Organizational structures which do not limit the complexity of

a job, which promote employee discretionary behaviour, and which limit the extent of standardization of procedures are important in establishing an organizational climate capable of supporting job enrichment changes (Conner & Lake, 1988; Griffen, 1987; Hackman & Oldham, 1980; Henry, 1990; McClure et al, 1983; Mullins, Nelson, Busciglio & Weiner, 1988; Northcraft & Neale, 1990; Van De Ven & Ferry, 1980; Zierden, 1980).

Hackman and Oldham (1980) have identified several organizational constraints on the implementation of job redesign. They have arranged these as falling under organizational systems (structures) and organizational practices.

5.2.4.2 Organizational Systems

Organizational structures which Hackman and Oldham consider to have a direct bearing on job structure are the technological, personnel, and control systems in place. Hackman and Oldham (1980) suggest that when a job's technology is based on the employee's knowledge, a fair degree of discretionary behaviour is necessary. Under these conditions, personnel systems need not develop job descriptions that are rigid and elaborate. Furthermore, mechanical control systems influencing employee behaviour by methods such as budgets and cost accounting systems, production and quality control reports, and attendance measuring devices can be changed to

allow employees more of the responsibility for controlling their own work processes.

Nursing studies confirm these findings. Professional nurse job satisfaction and quality nursing care are more likely to exist in an organization with a flat organizational structure which has very few middle managers and a decentralized supervisory approach that allows professional staff nurses self-governance of their work (Kramer, 1990; Kramer & Schmalenberg, 1991; Maas & Specht, 1990; McClure, 1984). Registered nurses value participation and involvement in organizational issues but differentiate between self-governed operation at the unit level and representative involvement in wider organizational issues (Kramer, 1990; Maas & Specht, 1990). Also important is the desire by nurses for interdisciplinary participation (McKay, 1983; Singleton & Nail, 1984).

Residents in PCHs like City PCH, although their health is fairly stable over time, have needs which are complex, unpredictable and individualized. For this reason the required care relies heavily on the knowledge, skills and discretionary behaviour of registered nurses. Alexander and Bauerschmidt (1987) studied the relationship between technology and structure to quality nursing care. The evidence appeared to be that reliance on nursing discretionary ability requires an organic organizational structure that allows a high degree of

participation in decision-making, low specification of tasks and few procedures.

Contrary to this approach, City PCH has developed many procedures, and a detailed job description and outline of daily routines for registered nurses. The allocation of professional staff based on a strict patient classification system may further regiment the work of registered nurses working at City PCH. Some critics of this type of control system point out that nurses tend to focus on tasks decreasing their valuable decision-making function and that work fragmentation is more likely to result (Campbell, 1987). In addition, City PCH used a quality assurance program that relied heavily on the process used rather than outcomes achieved thus further controlling how nurses perform their work. Several administrative layers is another method used by organizations to direct and closely monitor the work of employees (Mintzberg, 1983). As pointed out previously, City PCH has increased the number of administrative levels in the last two years and staff nurses had few channels for participation in organizational decision-making.

The Registered Nurses Association of British Columbia (1989) has issued a report based on an extensive literature review in which they outline strategies that have been shown to be successful in both improving job satisfaction and quality of nursing care. Many of the recommendations contained in this report are based on decentralization of decision

making to the unit level and the establishment of various multi-disciplinary committees (for example quality circles) and self-managed cohesive work teams that include nurse participation at all levels of the organization. For such strategies to work an organizational structure with few administrative levels is necessary (Kramer & Schmalenberg, 1991).

Researchers of job enrichment in PCHs make similar recommendations. Henry (1990), Maas and Specht (1990), and Mullins, Nelson, Busciglio and Weiner (1988), all conclude that nurses want to make decisions regarding their own work and participate in interdisciplinary organizational issues.

Given that staff nurses at City PCH are capable of using a great deal of discretionary behaviour in providing the necessary nursing care, want a better communication structure, want to participate in organizational decision-making, and have a detailed job description the above findings are relevant and were used in developing the following recommendations.

Recommendation 7

City PCH consider preparing a job description and job routines directed at nursing care outcomes rather than process in order to allow staff nurses increased discretionary behaviour in providing nursing care.

Recommendations 8

City PCH consider changing present organizational control systems in order to allow for a greater degree of decentralization to the unit level while still providing quality care within budgetary constraints.

Recommendation 9

City PCH consider decreasing the number of administrative levels delegating more decision-making and quality monitoring of direct nursing care to staff nurses and allowing them more discretionary behaviour in providing direct care.

Recommendation 10

City PCH consider (1) establishing various interdisciplinary committees that include staff nurse participation (e.g. quality circles and self-managed cohesive work team) for planning improved care and (2) include staff nurses in committees that make organizational policies.

5.2.4.3. Organizational Practices

When job enrichment changes are made organizational practices and policies can constrain the success of these changes. Hackman and Oldham have found that training practices, career development practices, compensation practices, and supervisory practices are especially likely to affect a lasting outcome. This has also been the experience of

job enrichment programs in nursing practice (Bracken & Christman, 1978; Ciske, 1974; Elpern, 1977; Kramer & Schmalenberg, 1991; McClure, 1984; Mullins et al , 1988; Registered Nurses Association of British Columbia, 1989; Weeks & Vestal, 1983; Zander, 1985).

Complex jobs require a high degree of knowledge and skills not only in technology but also in interpersonal relationships and in the decision-making process. Providing training for this new job is considered to be an essential element in the change process. An approach that many PCH's have found to be effective in increasing the necessary skills and knowledge of their staff and in improving the quality of nursing care without a large increase in cost has been an association with educational and research facilities (Huey, 1985; Mezey, Lynaugh & Cartier, 1988; Mohide, French, Caulfield Chambers & Bayne, 1983; Schneider, Wendland, Zimmer, List & Ory, 1985).

Recommendation 11

City PCH develop orientation, continuing education, and research policies to help nurses obtain the knowledge and skills necessary for dealing with an expanded job structure. Flexible work schedules could assist nurses to participate in education programs outside the facility (e.g. university programs).

Related to the increased knowledge and skill requirement is the previously examined conjecture that not all employees including nurses desire a job with a larger scope. Career development practices that match the needs of the organization with employee aspirations have been found to be successful in promoting nurse job satisfaction as well as quality nursing care (Hackman and Oldham, 1980). Clinical promotion systems such as clinical career ladders provide career development opportunities that are not entirely dependent on promotion to management and educational positions. There is the additional advantage of allowing individual choice. Clinical promotion is especially important in PCH's where a source of job dissatisfaction is often a lack of promotional opportunities (Cotler & Kane, 1988; Deckard, Hicks & Rountree, 1986). Providing staff nurses an opportunity to be involved in resident care research projects is another way that the job could be enhanced without promotion to management positions.

Recommendation 12

City PCH consider developing clinical promotion systems and research projects that are not dependent on promotion to management or educational positions.

Another factor often constraining the success of job enrichment is the strain on the role of first line managers. When an employee has increased autonomy by taking on decision-

making responsibility, discretion, and quality control activities formerly performed by supervisors, the work of supervisors changes. Another frequent consequence is the reduction in the number of supervisors that are necessary. Although the recognition that there is no need for many layers and numbers of supervisors is becoming accepted practice the transition can be difficult (Kramer & Schmalenberg, 1991). Hackman and Oldham suggest redesigning supervisors' work to focus on activities that provide support to subordinates. Suggested are functions like, data gathering for long range planning, consultation, coordination and improving communication.

Recommendation 13

City PCH examine the work of first line supervisors to assess what changes to their work structure is necessary in order to allow staff nurses to have increased discretionary and decision-making authority and adjust the functions as described above. This examination should include a review of the number and layers of management.

Sometimes instituting more complex jobs results in a demand for more compensation for the work performed. This is an important consideration for health care facilities during this time of cost constraint. Kramer and Schmalenberg (1991) conclude that successful organizations have dealt with this

issue by instituting salaried status, rather than an hourly, clock punching policy and the introduction of salary decompression based, not only on education and length of service but on quality performance as well. An increase in cost does not necessarily emanate from instituting job enrichment measures. Duplication of tasks is sometimes eliminated and a decrease in the number of supervisory staff often takes place.

Essential to making changes at this time of cost containment is the need to evaluate the effectiveness of changes, the benefits, and the ensuing cost (Drummond, Stoddard & Torrance, 1988).

Recommendation 14

City PCH develop a method to evaluate the cost-effectiveness of changes before they are actually made. The findings from this practicum can be used as a basis for evaluating the outcomes of changes to job structure.

5.3 Conclusion

The project assumption - that job structure is an important determinant of work outcomes such as quality performance and job satisfaction - was supported by the literature reviewed. The recommendations evolved from the information obtained via the assessment tools (JDS, organizational documents, and literature review) in response to the questions established for this project. The use of a

theory-based scientific investigation adds credibility to the findings.

The intent of this project was that the findings and recommendations serve as information for City PCH's strategic planning process. Moreover the expectation is that these findings will provide staff nurses with information in their negotiation for a job structure that will give them job satisfaction and allow for quality performance.

Although the recommendations which evolved from this practicum are specific for City PCH, the project can have a wider significance. Based on experience and the literature reviewed for this practicum the job structure of staff nurses at many PCHs is comparable and other PCHs could benefit from similar changes. In addition this practicum project could serve as a model for need assessment projects in other PCHs. Replication of this practicum project would serve to test the merit of this type of need assessment approach and of its findings. The JDS could be tested on a larger sampling of PCH nurses in Manitoba.

The findings of this practicum project add to the nursing practice knowledge base as information about the job structure of registered nurses working at the staff level is limited. This knowledge becomes essential as the care of residents in PCHs is becoming more complex and economic constraints increase .

As well the applied research approach adds to the general knowledge base regarding the concept of job enrichment and how the principles can be adapted to enhance both job satisfaction and quality performance. This can be useful to both managers and unions.

Several research questions were generated during this practicum project as gaps in knowledge became evident. One such gap was the measurement of changes in quality of life. A primary benefit for frail elderly in institutions is an increase in quality of life not necessarily cure or life years gained. Evaluations of health care programs require that both costs and benefits be considered but measuring benefits such as improved quality of life has proved to be elusive (Drummond, Stoddart & Torrance, 1988). An approach that appears promising is the cost-utility analysis method developed by the above authors. This method assigns numeric values to different states of well-being and changes are measured using these values. Mohide et al developed a tool successful in measuring the well-being of elderly caregivers (Mohide, Torrance, Streiner, Pringle & Gilbert, 1988). A instrument like this measuring changes in quality of life would demonstrate more directly the effect nursing care has on residents and so better staffing and nursing intervention decisions could be made. Related to measures of changes in quality of life is also a need to develop quality assurance measures for outcome of nursing care intervention.

Another gap that became evident from the literature review is the lack of knowledge regarding the appropriate ratio of registered nurses to other category of staff for PCHs. This may be partially due to the lack of knowledge about the effect that the work of registered nurses have on resident's quality of life. Contributing to this gap in knowledge about appropriate staffing for PCHs the assessment tool used by Manitoba Health to determine funding for staffing patterns. As discussed in the literature review, this form seems to have difficulty in recognizing nursing interventions which enhance quality of life and which prevent health complications.

Nurses, the general public, and our health care system generally would benefit from better scientific based approaches to the use of a valuable resource -- health care workers.

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APPENDIX A

City Personal Care Home (PCH) Profile

The City PCH profile outlined here was based on information from several organizational sources. Included were the following.

A. An examination of documents such as:

1. Organizational Statement of Philosophy and Purpose
2. Organizational Charts
3. Job Descriptions
4. Work Routine Outlines
5. Nursing Department; Purpose, Philosophy, and Goals
6. Informal survey results of nurses' perception of the present level of quality of nursing care and job satisfaction at City PCH (gathered by the past Director of Nursing).

B. Discussion with City PCH Management and Staff

1. Communication with the Board Chairman, Administrator and Director of Nursing.
2. Nursing Coordinators
3. Staff Nurses, Personal Care Aides

C. Attendance and/ or presentation at meetings such as:

1. Staff nurses monthly meetings
2. Personal Care Aide monthly meeting
3. Interdisciplinary Resident Care Conference
4. The Manitoba Health Services Commission's assessment of levels of residents' need for nursing care
5. Board of Directors

D. Participant observation of registered nurses and personal care aides in order to obtain information regarding general work activity

1. Observation of two day shifts, one evening shift and a partial night shift

General Description

City PCH is a 150 bed non-profit personal care home whose primary purpose (according to its Statement of Philosophy and Purpose, 1986) is to provide a home and multi-disciplinary therapeutic services to elderly persons unable to live at home because of physical or mental disability and\or because of care-giver inability to provide care at home. City PCH provides care for the most disoriented, whose behaviour is

deemed to be disturbing if placed in the regular living areas, in a separate ten bed Special Care Unit. Two of the beds at City PCH are available to the community for the respite of caregivers who need relief of heavy caregiving duties. All except two rooms are single occupancy.

Another purpose expressed by City PCH is to be a resource to the community. Included is involvement in meeting the needs of the elderly and their families and in the formal and informal education of health professionals, volunteers and family members.

City PCH was founded by a group with a common religious and cultural background whose aim was and still is to serve those in need in their community. Although it now receives funding from the provincial government and operates under license of the Manitoba Department of Health, the founding group retains moral and legal responsibility for all operations of the PCH.

A 1990 nursing dependency assessment by the Manitoba Health Services Commission indicated that 70% of City PCH residents require three and four levels of nursing care, considered to be the highest levels of functional disability, as measured by the assessment guide used in Manitoba. The remainder are evaluated to need level two nursing care. City PCH, as most other PCHs, has for the last few years experienced pressure from the community to admit a greater number of residents that require a high level of nursing care. PCHs in Manitoba are, however, only funded to staff a 60 level three and four /40 level two per cent ratio. Admitting a higher per percentage of residents requiring high levels of nursing care means not only that more staff is required, but that a larger number need to be professional nurses. The present ceiling in funding, creates a great deal of pressure on nurses to cope with a heavier work load as City PCH succumbs to community pressure and takes on a higher percentage of elderly which require maximum care.

Organizational Structure

City PCH's organizational chart reflects a pyramid shaped, hierarchical organization indicating a superior subordinate authority relationship. The director of nursing is part of the management committee and has responsibility for the nursing units, medical records, infection control, staff health and quality assurance.

Nursing Service Department

The organization of the nursing department also reflects a fairly tall, hierarchical structure with six levels of staff. The nursing service personnel consist of three Resident Care Coordinators, one evening supervisor, one replacement supervisor, one staff development coordinator and 16 registered nurses as well as 4 licensed practical nurses two of which work part time. In addition, there are 32 full time

and 50 part time personal care aides. A varying number of casual nursing and personal care aide staff is also available.

Coordination

The daily work of the nursing service personnel is coordinated and directed by the resident care coordinators and evening supervisor and to a great extent through standardization. Ward routines and procedures, used in the care of patients, are formalized and the expectation is that they be closely followed. Standardization is also obtained by the similarity of the educational background of the registered nurses (primarily from diploma schools).

Job Description

The job description of staff registered nurses at City PCH includes responsibility for (1) resident assessment, (2) planning of nursing care for all nursing service personnel, (3) the implementation of care by delegating and supervising or teaching others in giving the necessary care or, (4) as in the giving of medication and treatment, providing the care themselves (5) evaluation of nursing care outcomes and the performance auxiliary staff and (6) the documentation of resident progress and of the care provided. In addition, registered nurses are also expected to help co-ordinate the activities of other departments.

Work Routine

The above job description indicates responsibility for a great variety of work requiring a variety of skills. The written routine outlined for registered nurses appears to be more limited. Investigator observation confirmed that the need to carry out the tasks of administering medications and treatments to an entire ward of residents leaves less time for assessment, supervision, and planning especialy for long term nursing care.

Work Assignment Pattern

The assignment pattern used at City PCH seems to be a mixture of team and functional nursing. The underlying philosophy is to utilize each member of the health team- registered nurses, licensed practical nurses and personal care aides- according to their capabilities. The team provides care to a group of residents under the supervision of the resident care coordinator or supervisor. The nurse in charge is responsible for the planning and implementation of all nursing care to be given on a particular shift but the care itself is fragmented as several people provide part of the care. Due to the diversity and varying complexity of of the tasks that need to be performed and the varying skills of the different levels of staff employed, this pattern of work assignment requires a great deal of supervision and coordination.

Communication and Decision- Making

Organizational communication and the making of decisions, by registered nurses, seem to be, as the organizational chart indicates, quite centralized through the hierarchy.

Registered staff nurses are represented at the departmental level via the Nursing Department Committee and via the Interdisciplinary Team Committee and informally via weekly meetings with the director of nursing. Written interdepartmental communication, regarding day to day activities, is through a formalized 24 hour report form that all departments are expected to use and through action memos if appropriate. Agendas for committee meetings are generally not set by staff nurses. The communication book examined by the investigator showed communication directed down the hierarchy.

A common theme that recurred frequently, from conversation with various nursing staff, was that communication, both up and down the hierarchy, was not clear. Both management and staff nurses expressed this view.

Although the work of nurses is not directly supervised, routine and procedures govern their work. Several professions, especially physicians, have a strong influence on how nurses carry out their work. This occurs indirectly via the funding methods and sometimes directly through orders of nursing care procedures.

Quality of Nursing Care

The Audit Committee is an important committee to City PCH's Quality Assurance program. The terms of reference mandate that the committee include all levels of nursing staff, that all residents are to be evaluated yearly, and that this committee meet four times per year. The audit is based on auditors observation of residents physical condition at that specific time, the nursing care plans, and on the nurses notes on the chart, and appears to be primariy geared to identifying the structure of what needs are isolated and how the resident needs are met. Conversations with management appear to indicate that they feel generally satisfied with the nursing care, but recognize that quality of nursing care is difficult to measure.

Working Conditions

Registered nurses only recently voted to join the Manitoba Nursing Union. Since the pay scale and benefits at City PCH have always been comparable to those in health care facilities whose nurses are unionized this was not the major issue for registered nurses. The first contract was not ratified at the time of the project and so no formal documents could be examined. Several common themes, however, emerged from informal verbal communication with staff nurses. The issues for the formation of a union local seemed to revolve around the above mentioned unclear communication pattern, a

perception that staff nurses had little affect on decisions made in the workplace, and job security was at risk.

City PCH's Philosophy and Objectives (1986) clearily states that professional and personal growth is encouraged and expected. Furthermore, provision is made for this through the staff development coordinator position. Although no formal changes have been made to the organizational policy regulating the financial support of continuing education programs, a perception exists among staff nurses that a cut back regarding educational support for staff nurses has occurred.

Current Organizational Changes

City PCH has experienced several recent changes that have contributed to some feeling of uncertainty and unease on the part of staff, especially nurses. One change is an extensive expansion both to the PCH and by the addition of an attached senior citizen residence. Although nursing staff is not responsible for the daily care of these seniors, they are required to respond to emergencies. A second change is the continuous pressure to admit a larger percentage of high level dependent residents and the limited government funding available. A third change is the sudden departures of the director of nursing and staff development coordinator. Contemplated changes to the organizational and nursing service structures by the administrator and the new director of nursing, is a fourth change.

APPENDIX B

The Job Diagnostic Survey

Obtained from Roy W. Walters & Associates, Inc.
45 Whitney Road
Mahwah, NJ 07430

Biographical Information

Before beginning this survey, please place your job title in the space provided at the upper right hand corner of the answer sheet.

1. Identify your gender with a check mark (✓) in the appropriate space.

2. List your age in the space provided.

3. Using the following scale, list your educational background in the space provided on answer sheet.

   (1) Grade School

   (2) Some High School

   (3) High School Degree

   (4) Some Business College or Technical School Experience

   (5) Some College Experience (other than business or technical school)

   (6) Business College or Technical School Degree

   (7) College Degree

   (8) Some Graduate Work

   (9) Master's or higher degree

Section 1

This part of the questionnaire asks you to describe your job, as objectively as you can.

Please do not use this part of the questionnaire to show how much you like or dislike your job. Questions about that will come later. Instead, try to make your descriptions as accurate and as objective as you possibly can.

A sample question is given below.

A. To what extent does your job require you to work with mechanical equipment?

1----------2----------3----------4----------5----------6----------7

Very little; the job requires almost no contact with mechanical equipment of any kind.

Moderately

Very much, the job requires almost constant work with mechanical equipment.

List the number which is the most accurate description of your job in the space provided on the answer sheet.

If, for example, your job requires you to work with mechanical equipment a good deal of the time - but also requires some paperwork - you might write the number six.

A. 6

If you do not understand these instructions, please ask for assistance. If you do understand them, begin now.

4. To what extent does your job require you to work closely with other people (either "clients," or people in related jobs in your own organization)?

1---------2---------3---------4---------5---------6---------7

Very little; dealing with other people is not at all necessary in doing the job.	Moderately; some dealing with others is necessary.	Very much; dealing with other people is an absolutely essential and crucial part of doing the job.

5. How much autonomy is there in your job? That is, to what extent does your job permit you to decide on your own how to go about doing the work?

1---------2---------3---------4---------5---------6---------7

Very little; the job gives me almost no personal "say" about how and when the work is done.	Moderate autonomy; many things are standardized and not under my control, but I can make some decisions about the work.	Very much; the job gives me almost complete responsibility for deciding how and when the work is done.

6. To what extent does your job involve doing a "whole" and identifiable piece of work? That is, is the job a complete piece of work that has an obvious beginning and end? Or is it only a small part of the overall piece of work, which is finished by other people or by automatic machines?

1---------2---------3---------4---------5---------6---------7

My job is only a tiny part of the overall piece of work; the results of my activities cannot be seen in the final product or service.	My job is a moderate-sized "chunk" of the overall piece of work; my own contribution can be seen in the final outcome.	My job involves doing the whole piece of work, from start to finish; the results of my activities are easily seen in the final product or service.

7. How much variety is there in your job? That is, to what extent does the job require you to do many different things at work, using a variety of your skills and talents?

1---------2---------3---------4---------5---------6---------7

Very little; the job requires me to do the same routine things over and over again.	Moderate variety.	Very much; the job requires me to do many different things, using a number of different skills and talents.

8. In general how significant or important is your job? That is, are the results of your work likely to significantly affect the lives or well-being of other people?

1---------2---------3---------4---------5---------6---------7

Not very significant; the outcomes of my work are not likely to have important effects on other people.	Moderately significant.	Highly significant; the outcomes of my work can affect other people in very important ways.

9. To what extent do managers or co-workers let you know how well you are doing on your job?

1---------2---------3---------4---------5---------6---------7

Very little; people almost never let me know how well I am doing.	Moderately; sometimes people may give me "feedback;" other times they may not.	Very much; managers or co-workers provide me with almost constant "feedback" about how well I am doing.

10. To what extent does doing the job itself provide you with information about your work performance? That is, does the actual work itself provide clues about how well you are doing - aside from any "feedback" co-workers or supervisors may provide?

1---------2---------3---------4---------5---------6---------7

Very little; the job itself is set up so I could work forever without finding out how well I am doing.	Moderately; sometimes doing the job provides "feedback" to me; sometimes it does not.	Very much; the job is set up so that I get almost constant "feedback" as I work about how well I am doing.

Listed below are a number of statements which could be used to describe a job.

You are to indicate whether each statement is an accurate or an inaccurate description of your job.

Once again, please try to be as objective as you can in deciding how accurately each statement describes your job - regardless of whether you like or dislike your job.

Write a number in the appropriate space on the answer sheet, based on the following scale:

How accurate is the statement in describing your job?

1	2	3	4	5	6	7
Very Inaccurate	Mostly Inaccurate	Slightly Inaccurate	Uncertain	Slightly Accurate	Mostly Accurate	Very Accurate

11. The job requires me to use a number of complex or high-level skills.

12. The job requires a lot of cooperative work with other people.

13. The job is arranged so that I do not have the chance to do an entire piece of work from beginning to end.

14. Just doing the work required by the job provides many chances for me to figure out how well I am doing.

15. The job is quite simple and repetitive.

16. The job can be done adequately by a person working alone - without talking or checking with other people.

17. The supervisors and co-workers on this job almost never give me any "feedback" about how well I am doing in my work.

18. This job is one where a lot of other people can be affected by how well the work gets done.

19. The job denies me any chance to use my personal initiative or judgment in carrying out the work.

20. Supervisors often let me know how well they think I am performing the job.

21. The job provides me the chance to completely finish the pieces of work I begin.

22. The job itself provides very few clues about whether or not I am performing well.

23. The job gives me considerable opportunity for independence and freedom in how I do the work.

24. The job itself is not very significant or important in the broader scheme of things.

Section 3

Now please indicate how you personally feel about your job.

Each of the statements below is something that a person might say about his or her job. You are to indicate your own, personal feelings about your job by marking how much you agree with each of the statements.

Write a number in the blank for each statement, based on this scale:

How much do you agree with the statement?

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral	Agree Slightly	Agree	Agree Strongly

25. It's hard, on this job, for me to care very much about whether or not the work gets done right.

26. My opinion of myself goes up when I do this job well.

27. Generally speaking, I am very satisfied with this job.

28. Most of the things I have to do on this job seem useless or trivial.

29. I usually know whether or not my work is satisfactory on this job.

30. I feel a great sense of personal satisfaction when I do this job well.

31. The work I do on this job is very meaningful to me.

32. I feel a very high degree of personal responsibility for the work I do on this job.

33. I frequently think of quitting this job.

34. I feel bad and unhappy when I discover that I have performed poorly on this job.

35. I often have trouble figuring out whether I'm doing well or poorly on this job.

36. I feel I should personally take the credit or blame for the results of my work on this job.

37. I am generally satisfied with the kind of work I do in this job.

38. My own feelings are not affected much one way or the other by how well I do on this job.

39. Whether or not this job gets done right is clearly my responsibility.

Section 4

Now please indicate how satisfied you are with each aspect of your job listed below. Once again, write the appropriate number in the space on the answer sheet.

How satisfied are you with this aspect of your job?

1	2	3	4	5	6	7
Extremely Dissatisfied	Dissatisfied	Slightly Dissatisfied	Neutral	Slightly Satisfied	Satisfied	Extremely Satisfied

40. The amount of job security I have.

41. The amount of pay and fringe benefits I receive.

42. The amount of personal growth and development I get in doing my job.

43. The people I talk to and work with on my job.

44. The degree of respect and fair treatment I receive from my boss.

45. The feeling of worthwhile accomplishment I get from doing my job.

46. The chance to get to know other people while on the job.

47. The amount of support and guidance I receive from my supervisor.

48. The degree to which I am fairly paid for what I contribute to this organization.

49. The amount of independent thought and action I can exercise in my job.

50. How secure things look for me in the future in this organization.

51. The chance to help other people while at work.

52. The amount of challenge in my job.

53. The overall quality of the supervision I receive in my work.

Now please think of the other people in your organization who hold the same job you do. If no one has exactly the same job as you, think of the job which is most similar to yours.

Please think about how accurately each of the statements describes the feelings of those people about the job.

It is quite all right if your answers here are different from when you described your own reactions to the job. Often different people feel quite differently about the same job.

Once again, write a number on the answer sheet for each statement, based on scale:

How much do you agree with the statement?

1	2	3	4	5	6	7
Disagree Strongly	Disagree	Disagree Slightly	Neutral	Agree Slightly	Agree	Agree Strongly

54. Most people on this job feel a great sense of personal satisfaction when they do the job well.

55. Most people on this job are very satisfied with the job.

56. Most people on this job feel that the work is useless or trivial.

57. Most people on this job feel a great deal of personal responsibility for the work they do.

58. Most people on this job have a pretty good idea of how well they are performing their work.

59. Most people on this job find the work very meaningful.

60. Most people on this job feel that whether or not the job gets done right is clearly their own responsibility.

61. People on this job often think of quitting.

62. Most people on this job feel bad or unhappy when they find that they have performed the work poorly.

63. Most people on this job have trouble figuring out whether they are doing a good or a bad job.

Section 6

Listed below are a number of characteristics which could be present on any job. People differ about how much they would like to have each one present in their own jobs. We are interested in learning how much you personally would like to have each one present in your job.

Using the scale below, please indicate the degree to which you would like to have each characteristic present in your job.

1	2	3	4	5	6	7
Would like having this only a moderate amount (or less)			Would like having this very much			Would like having this extremely much

64. High respect and fair treatment from my supervisor.

65. Stimulating and challenging work.

66. Chances to exercise independent thought and action in my job.

67. Great job security.

68. Very friendly co-workers.

69. Opportunities to learn new things from my work.

70. High salary and good fringe benefits.

71. Opportunities to be creative and imaginative in my work.

72. Quick promotions.

73. Opportunities for personal growth and development in my job.

74. A sense of worthwhile accomplishment in my work.

Section 7

People differ in the kinds of jobs they would most like to hold. The questions in this section give you a chance to say just what it is about a job that is most important to you.

For each question, two different kinds of jobs are briefly described. You are to indicate which of the jobs you personally would prefer - if you had to make a choice between them.

In answering each question, assume that everything else about the job is the same. Pay attention only to the characteristics actually listed.

Two examples are given below.

JOB A	JOB B
A job requiring work with mechanical equipment most of the day.	A job requiring work with other people most of the day.

1	2	3	4	5
Strongly Prefer A	Slightly Prefer A	Neutral	Slightly Prefer B	Strongly Prefer B

If you like working with people and working with equipment equally well, you would write the number 3, on the answer sheet.

Example 1. 3

Here is another example. This one asks for a harder choice - between two jobs which both have some undesirable features.

JOB A	JOB B
A job requiring you to expose yourself to considerable physical danger.	A job located 200 miles from your home and family.

1	2	3	4	5
Strongly Prefer A	Slightly Prefer A	Neutral	Slightly Prefer B	Strongly Prefer B

If you would slightly prefer risking physical danger to working far from your home, you would write the number 2, on the answer sheet.

Example 2. 2

Please ask for assistance if you do not understand exactly how to do these questions.

	JOB A	JOB B
75.	A job where the pay is very good.	A job were there is considerable opportunity to be creative and innovative.

1----------2----------3----------4----------5

Strongly Prefer A	Slightly Prefer A	Neutral	Slightly Prefer B	Strongly Prefer B

76.	A job where you are often required to make important decisions.	A job with many pleasant people to work with.

1----------2----------3----------4----------5

Strongly Prefer A	Slightly Prefer A	Neutral	Slightly Prefer B	Strongly Prefer B

77.	A job in which greater responsibility is given to those who do the best work.	A job in which greater responsibility is given to loyal employees who have the most seniority.

1----------2----------3----------4----------5

Strongly Prefer A	Slightly Prefer A	Neutral	Slightly Prefer B	Strongly Prefer B

78.	A job in an organization which is in financial trouble - and might have to close down within the year.	A job in which you are not allowed to have any say whatever in how your work is scheduled, or in the procedures to be used in carrying it out.

1----------2----------3----------4----------5

Strongly Prefer A	Slightly Prefer A	Neutral	Slightly Prefer B	Strongly Prefer B

79.	A very routine job.	A job where your co-workers are not very friendly.

1----------2----------3----------4----------5

Strongly Prefer A	Slightly Prefer A	Neutral	Slightly Prefer B	Strongly Prefer B

80.	A job with a supervisor who is often very critical of you and your work in front of other people.	A job which prevents you from using a number of skills that you worked hard to develop.

1----------2----------3----------4----------5

Strongly Prefer A	Slightly Prefer A	Neutral	Slightly Prefer B	Strongly Prefer B

	JOB A	JOB B
81.	A job with a supervisor who respects you and treats you fairly.	A job which provides constant opportunities for you to learn new and interesting things.

1----------2----------3----------4----------5

Strongly Prefer A	Slightly Prefer A	Neutral	Slightly Prefer B	Strongly Prefer B

82. A job where there is a real chance you could be laid off.

A job with very little chance to do challenging work.

1----------2----------3----------4----------5

Strongly Prefer A	Slightly Prefer A	Neutral	Slightly Prefer B	Strongly Prefer B

83. A job in which there is a real chance for you to develop new skills and advance in the organization.

A job which provides lots of vacation time and an excellent fringe benefit package.

1----------2----------3----------4----------5

Strongly Prefer A	Slightly Prefer A	Neutral	Slightly Prefer B	Strongly Prefer B

84. A job with little freedom and independence to do your work in the way you think best.

A job where the working conditions are poor.

1----------2----------3----------4----------5

Strongly Prefer A	Slightly Prefer A	Neutral	Slightly Prefer B	Strongly Prefer B

85. A job with very satisfying team-work.

A job which allows you to use your skills and abilities to the fullest extent.

1----------2----------3----------4----------5

Strongly Prefer A	Slightly Prefer A	Neutral	Slightly Prefer B	Strongly Prefer B

86. A job which offers little or no challenge.

A job which requires you to be completely isolated from co-workers.

1----------2----------3----------4----------5

Strongly Prefer A	Slightly Prefer A	Neutral	Slightly Prefer B	Strongly Prefer B

APPENDIX C

Explanation of the Project to Nurse Participants

My name is Wanda Andres, a student in the Master of Nursing Program at the University of Manitoba. I am interested in the work of of registered nurses in personal care homes (PCH) because I believe it is crucial to the quality of care residents receive. Another concern is the false perception that sometimes exists that the work in personal care homes cannot provide job satisfaction to registered nurses. As part of my practicum at Bethania Mennonite Personal Care Home, I have developed a project that looks at the job of nurses at Bethania PCH and whether it is structured in a way that allows you to provide quality nursing care, while at the same time obtaining job satisfaction.

I am inviting you to participate in this project. If you agree to do so, I will ask you to complete the Job Diagnostic Survey. This questionnaire was developed by Hackman and Oldham (1980)* for the purpose of analyzing jobs to determine what restructuring of work could make it more effective while providing job satisfaction to employees.

The plan is to administer the questionnaire to small groups of registered nurses, at times convenient to you. Completing the questionnaires will take approximately 20 minutes. All registered nurses are invited to participate.

Participation in this project is, of course, voluntary and your information will be confidential and anonymous. The questionnaire does not request your name and will be computer analyzed by a consulting firm. Only cumulative results are reported, as it is the job per se that is examined. The questionnaires will be destroyed upon completion of the study. You may have a summary of the findings if you wish.

The project was planned with the permission and support of the Board of Directors and Management of your facility. I anticipate that the information obtained through this project will assist the management of Bethania PCH to assess your job structure.

Thank you for your attention as your participation can make this project successful. I will be happy to answer any

questions about this project. You can reach me at . If you wish to speak to my supervisor, Dr. Jenniece Larsen, she can be reached at the University of Manitoba, School of Nursing, at 474-9201.

*Hackman, J.R. & Oldham, G. R. (1980). Work Redesign. Reading, Massachusetts: Addison-Wesley Publishing Company.

APPENDIX D
Biographical Information

1. Your job title is:_____

2. Identify your gender with a check mark in the appropriate space:

Male ( )

Female ( )

3. Please check your appropriate age category:

20-30 ( )

31-40 ( )

41-50 ( )

51-65 ( )

4. Please indicate your educational background by a check mark:

Diploma School of Nursing ( )

Baccalaureate Degree in Nursing ( )

Another University Degree ( )

Which?_____

Certificate in a Nursing Specialty ( )

Which?_____

APPENDIX E

The University of Manitoba

SCHOOL OF NURSING
ETHICAL REVIEW COMMITTEE

APPROVAL FORM

Proposal Number N#91/01

Proposal Title: "Diagnosing the Need for Change in the Job Structure of Nurses in a Personal Care Home"

Name and Title of Researcher(s): Wanda Andres, B.N., R.N.
Graduate Student
Master of Nursing Program

Date of Review: February 4, 1991

APPROVED BY THE COMMITTEE: February 04, 1991.

Comments:

Date: Feb. 11/91

E. J. Schilder, RN, DNS Chairperson
Associate Professor
University of Manitoba