TRUST IN MANAGEMENT AND ITS RELATION TO JOB SATISFACTION AND INTENTIONS TO REMAIN FOR NORTHERN BC NURSES

by

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Abstract

Job satisfaction and, more importantly, retention, have been at the forefront of healthcare in British Columbia and trust in management is believed to be a significant factor in both retention and job satisfaction in many areas of literature. This study examined, through survey and structured interview, the job beliefs and attitudes of 123 registered nurses working in hospitals in northern British Columbia. The results of the study showed that while job satisfaction and intentions to remain are related to nurse's trust in management, the correlation is not as high as correlations found in other fields. This seems to indicate that further examination of trust in nursing may have to be done before the role that trust plays can truly be determined.

Table of Contents

List of Tables

List of Figures

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1.0 INTRODUCTION

The retention of nurses in Northern British Columbia and, in fact, many areas, is a major concern to health care providers at the moment (BCNU, 2001). Hospitals find themselves running short staffed, having difficulty recruiting new staff and having difficulties retaining the staff they already have (BCNU, 2001). Some of the factors contributing to the problem are external: the healthcare workforce is aging and many babyboomers are retiring, there was a lack of hiring in the 1990s, and there were reduced numbers of university students in health professions (Lowe, 2002). A shift from a 2-year diploma program to a 4-year BSN program, in the mid 1990's, created a lag between the last diploma class and the first BSN class; as well there are a lack of spaces in universities for those wishing to pursue a nursing career

> In 2001/02 the numbers enrolled in first year nursing programs across the province were 915. Although no central registry exists to accurately monitor the number of applicants for each specific program, colleges and universities report that there is fierce competition for every nursing seat. Lack of physical space for nursing seats, reduction in the numbers of qualified instructors and educators (due to many of the same factors impacting front-line nurses), shortages of clinical placements and nurse preceptors, as well as lack of research money specifically allocated to nursing chairs, impacts the ability to effectively carry out this strategy in the long-term (BCNU, 2001).

These are factors that are beyond the control of employers. There are, however, factors that hospitals and other healthcare employers can control. In his article, Lowe (2002) notes that health professionals (compared to a variety of other occupations including university professors, clerical, skilled sales/service, skilled and unskilled manual labour, etc) have the lowest levels of trust in their employers, the

lowest levels of commitment to their employers, the lowest levels of workplace communication, feel they have the least influence in their workplace decisions and rate their workplace as being the least healthy and supportive. Of the areas identified by Lowe (2002), this paper will examine two of them: trust in employers and job satisfaction (which is a component of a healthy, supportive workplace) as well as their relationship to intentions to remain.

2.0 LITERATURE REVIEW

The relationships between trust, job satisfaction and intentions to remain are areas that have been explored in depth by a number of fields. This paper will explore the those relationships as they relate to nurses in Northern BC; these relationships are outlined in Figure 1. A number of factors directly contribute to job satisfaction; these factors include: feedback, autonomy, safety, opportunities for advancement, management's view of nurses, and decision making authority. The literature review will discuss, in more detail, the theoretical relationships illustrated by the model and the nurses discussed in the literature are from acute care settings unless otherwise specified.

2.1 Sources of Job Satisfaction

Satisfaction is defined as being the "fulfilment of a need or a desire as it affects or motivates behaviour"(No author, 1989) and the definition of job satisfaction has been further refined and come to mean "how people feel about their jobs overall and about different aspects of them – the extent to which they like their jobs" (No author, 1997). Within nursing, countless measures of job satisfaction have been assessed and authors have found very little evidence that the sources of job satisfaction can be narrowed down to a few key sources. Sadly, for hospitals, this means there is not one single change that can be made in order to satisfy all staff and changes made that satisfy some may cause dissatisfaction in others. Many of the sources

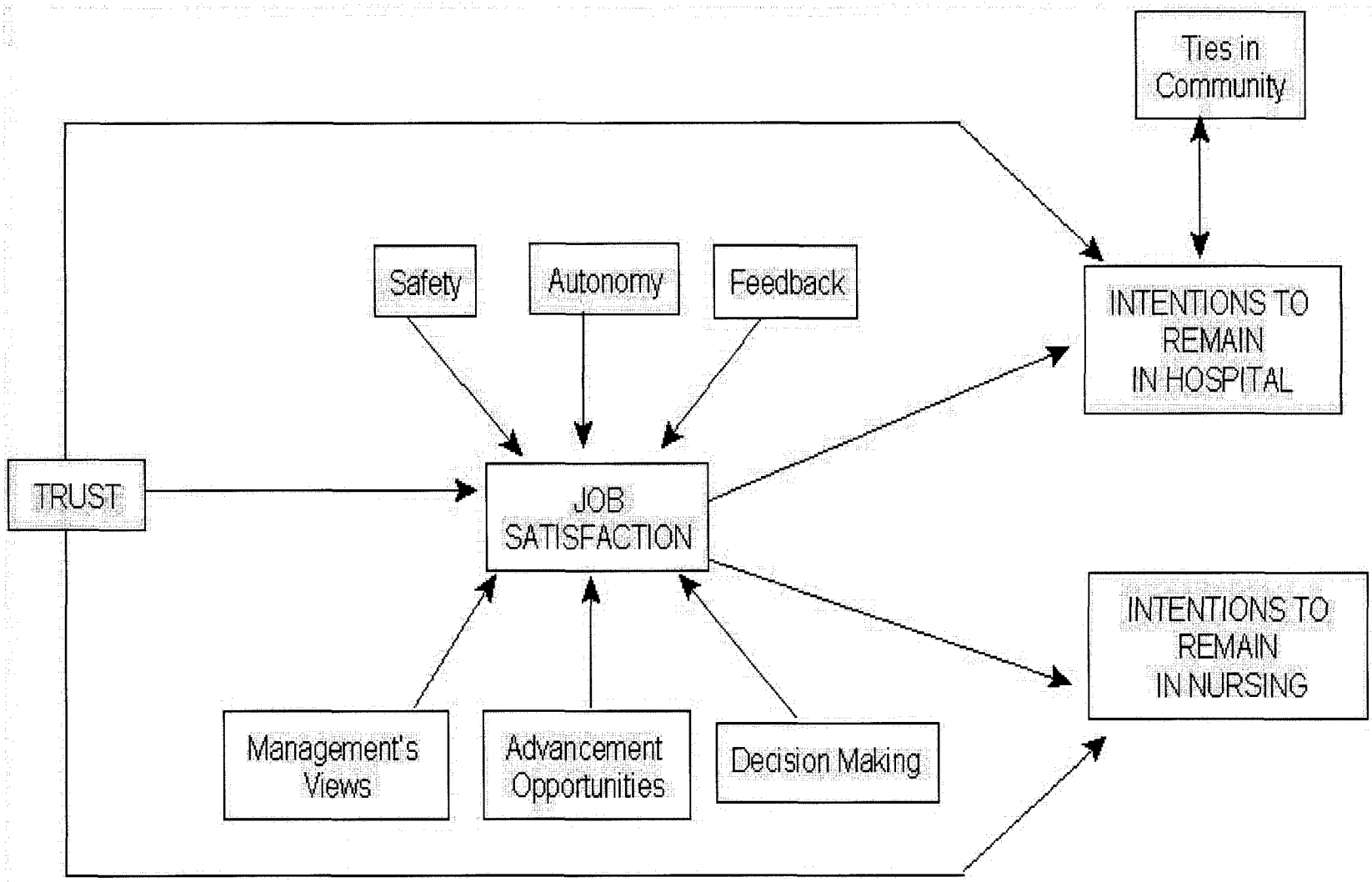

Figure 1 Theoretical model of relationships between trust, job satisfaction and intentions to remain

of job satisfaction are relatively intuitive such as opportunities for advancement and safety but others, like feedback and management support, are not so immediately apparent.

2.1.2 Opportunity for Advancement

Shields & Ward (2001), Lundh (1999), Armstrong–Stassen, Cameron & Horsburgh (1996), Cavanagh (1990) all discuss the idea that the opportunity for advancement is linked to job satisfaction but they did not delve into the reason that advancement leads to job satisfaction. It is plausible that the biggest payoff for job satisfaction likely comes from the employee feeling valued and that their contributions within the organizations are not only noticed but acted upon. One thing that is not discussed by any of the authors is the idea that satisfaction can come from advancement but not involve any vertical movement (e.g. becoming more specialized in a given field or learning about a different area but still doing bedside nursing and not moving up into management; "In nursing definitely [there are advancement opportunities] - at my age I am not looking for more degrees but [there are] lots of opportunities to get into different jobs (Structured Interview #109, 2002)"). There are nurses who are happy with doing bedside nursing and who don't want to leave their chosen area of practice.

2.1.3 Autonomy/Decision Making

Autonomy is an area that arises in most literature that discusses job satisfaction, regardless of the profession in question, and nursing is not any different. Adams & Bond (2000), Crose (1999), Buchan (1994) and Cavanagh (1990) simply looked at levels of autonomy and used those as a marker to separate more successful

hospitals from those with high turnover. Collins, Jones, McDonnell, Read, Jones & Cameron (2000), Carver (1998), Chiarella (1998), Pierce, Hazel & Mion (1996) and Ethridge (1987), however, delve more deeply into what autonomy means to nurses, what it would allow them to do and why it changes levels of job satisfaction. These authors found that the expanded roles that come with autonomy offer many nurses new challenges and chances to expand their skill sets. They are able to pursue innovative paths and have increased freedom to design care plans they feel are most appropriate for their patients. This autonomy gives nurses the ability to give good patient care, the reason most of them became nurses. Chiarella (1998) and Carver (1998) both discuss nurses taking on roles from traditional medical territory in order to offer more holistic patient care and a further continuity of care but while Chiarella (1998) feels that this increased role and autonomy can only lead to increased job satisfaction, Carver (1998) offers the caution that nurses should ensure that the roles they are taking on allow them to deliver the type of nursing care they want to give lest they find themselves with increased autonomy but deceased levels of job satisfaction.

2.1.4 Working Conditions/Safety

Working conditions and their relation to job satisfaction speak to one of the basic needs of employees, the ability to feel safe at work. Zboril-Benson (2002), Greenglass & Burke (2001), Crose (1999), Wicker (1999) and Armstrong-Stassen, Cameron & Horsburgh, (1996) note that nurses want control over their working conditions; they want to be able to decide appropriate nurse to patient ratios, how many RNs are needed and what they require, by way of equipment and supplies, to deliver

safe, quality care. Greenglass and Burke (2001) discuss the idea that many nurses feel there has been a deterioration in their working conditions and that the deterioration is mainly due to restructuring within the hospitals and the health care system. Zboril-Benson (2002) also notes that with respect to restructuring, the deterioration of working conditions has also brought about more cases of serious injury.

2.1.5 Support from Management

Downsizing is not the only area in which management is linked to satisfaction. Quine (2001), Duchscher (2001), Peltier, Boyt & Westfall (1999), Yoder (1995) and Prato (1987) discuss that the amount of support received from management directly affects levels of job satisfaction. In Prato's article (1987), support from management comes in the form of effective orientation. Offering credit for jobs well done, establishing decision making guidelines and ensuring units are operating as smoothly as possible are part of the broader spectrum of ensuring that nurses are aware of their roles and duties within the unit. Management that does this finds they have happier and more satisfied nurses. Yoder's article follows a similar vein, discussing the value of a career development relationship that involves mentoring, preceptoring, coaching and sponsoring (Yoder, 1995: 293). Career development relationships offer nurses a chance to share their strengths, an avenue to improve any weaknesses and also provide a support system for newer nurses. Quine's article (2001), however, looks at the support management offers for nurses who are being bullied within the workplace. Quine (2001) states that more nurses are bullied than any other hospital staff, that they are more likely to witness bullying and that less than one quarter of them are

satisfied with the outcome of dealing with the bullying. This lack of satisfaction with outcome leads to a more generalized decrease in job satisfaction and an increase in propensities to leave. Quine (2001) suggests that management would do well to deal more effectively with bullying but does not state what sort of support the nurses want or need.

2.1.6 Feedback

Feedback from management and supervisors about job performance has been shown, in many areas of the literature, to be a significant predictor of job satisfaction (Ecklund & Hallberg, 2000; Reiner & Zhao, 1999; Taylor, 1999). Kim (1999), in his study of public officials found that feedback had a significant, positive impact on job satisfaction. Orpen (1984) found there was a significant correlation between job satisfaction and feedback ($r=.39$, $p<.05$).

There are other sources of job satisfaction but the ones listed above touch on many of the major areas that are necessary to fulfill the needs of an employee. Having looked at what gives satisfaction within a job, it is also important to examine what keeps individuals in their jobs.

2.2 Factors Related to Retention of Nurses In Hospital

It has been made fairly clear in the literature that one of the main factors related to retention is job satisfaction but that is not the only factor. Friss (1982), While & Blackman (1998) and Leveck & Jones (1996) state that age and experience are factors in retention; the older a nurse is and the longer she has been at an institution, the less likely she is to leave. Shay & Stallings (1993), Fisher, Hinson & Deets (1994),

Diaz (1989), Schaefer (1989), and Friss (1982) also note that there is a correlation between turnover and level of skill, education opportunities and type of occupation. Nurses who are more highly skilled and who have more education appear to be more inclined to remain at an institution. Contrarily, Price & Mueller (1981 cf Cavanagh 1990) found that nurses with undergraduate degrees were more likely to leave their jobs than counterparts who did not have degrees. Schaefer (1989), notes that critical care nurses' levels of retention is aided with research training skills that enable them to expand their scope of practice; Diaz (1989) notes the importance of ensuring that the off-shifts (i.e. nurses who are not working when inservices are presented) have adequate opportunities to access education and the importance of doing a needs assessment to determine what education is actually important and useful to those nurses.

2.2.1 Community and Family Ties

Retention issues do not always fall within the hospital's control. Orsolits (1984) found that 27% of respondents to an exit survey stated family relationships (children and husband's work) as their main reason for leaving. Fisher, Hinson & Deets (1994) and Cavanagh (1990) examined a number of retention factors at not-for-profit hospitals in the US and found that kinship responsibilities played a significant role in intentions to remain (in the case of Cavanagh (1990), kinship responsibilities were the most important predictor of turnover). Examples of kinship responsibilities include: having to care for elderly parents, caring for a chronically ill spouse or child, relocation of a spouse to a new job, etc. The hospital cannot do anything to prevent kinship

responsibilities from arising, however, they can offer support to its staff in order to attempt to temper the effects of kinship responsibilities. In addition, other studies have found that individuals choose to work in the location where they are because of family ties. In education, it was found that 35% of teachers taught in the county they were teaching in because of family ties (Chatham Education Foundation, 2001).

2.3 Factors Related to Intentions to Remain In Nursing

While no literature could be found on intentions to remain in the nursing profession (rather than retention at current hospital or organization), other fields have done research in this area. The education literature discusses the fact that many teachers feel they are required to perform like experienced teachers as soon as they enter the field and do not have sufficient professional support and assistance to perform their job adequately. Special education teachers leave their profession citing reasons including: high rates of role conflict, lack of collegiality and poor school climate (Griffin, Winn, Otis-Wilborn, Kilgore, 2003). In another study, Theobega & Miller (2001) found that supervision and feedback were positively related to job satisfaction which is, in turn, related to intentions to remain in the teaching profession

2.4 Relation Between Job Satisfaction and Intentions to Remain in Hospital

Armstrong-Stassen, Cameron, Mantler, Horsburgh, M.E. (2001), Chusmir (2001), Shields & Ward (2001), Zangaro (2001), Kunavikitkul, Nuntasupawat, Srisuphan & Booth (2000), Buchan (1999), Crose (1999), While & Blackman (1998), Leveck & Jones (1996), Irvine & Evans (1995). Stratton, Dunkin, Juhl & Geller (1995), Huntley (1994), Robinson & Rousseau (1994), Choi, Jameson, Brekke, Anderson,

& Podratz (1989), Hogan & Martell (1987) discuss job satisfaction and retention and while the source of this satisfaction differs from article to article, the common thread among them is that job satisfaction is directly correlated with intentions to remain. Armstrong-Stassen, Cameron, Mantler, Horsburgh (2001: 156) show a correlation of -.59 between job satisfaction and turnover intentions (note that this is intentions to leave, not remain hence the negative correlation). Cox (2001) shows a similar satisfaction-turnover intention with a correlation of -.57. Hogan and Martell (1987) examined the relationship between satisfaction and intent to stay and found the correlation to be .56 while Robinson & Rousseau (1994) found that satisfaction and intentions to remain had a correlation of .43 (p=.01).

2.5 Definitions and Facets of Trust

A review of the literature surrounding trust reveals a wealth of articles on the subject. Trust, and its importance in organizations, workplaces and relationships has been examined from many different angles. For the purposes of this paper, the pertinent articles can be condensed into a three major themes: trust has many definitions, trust is multi-faceted, and trust is related to job satisfaction and intentions to remain.

In their review of trust based literature, Rousseau, Sitkin, Burt, Camerer (1998) define trust as being: "...a psychological state comprising the intention to accept vulnerability based upon positive expectations of the intentions or behavior of another (p. 395)." In their cross-discipline study of trust, Rousseau et al. (1989) looked at the treatment of trust by economists, psychologists, sociologists and others and

tested assumptions surrounding what was known about trust. They found that while scholars may word their definitions of trust differently, fundamentally, they agree on the meaning of trust and there are different types of trust that exist within a spectrum and that the same parties may experience different types of trust depending on the task or setting. Trust is not one-dimensional, however; many characteristics contribute to the establishment and maintenance of a trust relationship.

Sirdeshmukh, Singh, Sabol (2002), Pounder (2001), Tschannen-Moran (2001), Shockley-Zalabak, Ellis, Winograd (2000), Hoy & Tschannen-Moran (1999), Clark & Payne (1997) ,Deluga (1995), Hosmer (1995), and Butler (1991) describe these characteristics that contribute to trust as facets. These facets include: benevolence (self-interests are balanced with other interests), reliability (the expectation of consistent and dependable behaviour in words and actions), competence (a generalized perception that assumes leadership effectiveness and the ability of the organization to survive in the marketplace), honesty and openness (the amount of information being shared and the perception of sincere efforts by leaders). Deluga (1995) describes an additional five facets that are present primarily in the trust relationship between employees and management. These include: availability (being physically present when needed), consistency (making decisions in a reliable fashion), confidentiality (keeping confidences), fairness (just and impartial treatment), integrity (honesty and moral character), loyalty (an implied agreement not to cause harm and promote the subordinate's interests), and receptivity (being straightforward about giving and accepting suggestions) (Deluga, 1995:3-4).

2.6 Relationship between Trust and Job Satisfaction

The role of trust in management in employees' levels of job satisfaction is one that has been widely explored in business literature for many years. Trust plays a large role in job satisfaction; this refers not only to the global idea of trust, but to the idea of faceted trust. Each of the facets of trust may contribute differently to the levels of job satisfaction. Shockley-Zalabak, Ellis, Winograd (2000), Deluga (1994) and Robinson and Rousseau (1994) all discuss the individual facets of trust and relate those to job satisfaction. Shockley-Zalabak, Ellis, Winograd (2000) also look at trust as a whole and found that trust explains 60.8% of the variance in job satisfaction. Driscoll (1978) found a correlation of .52 ($p=.001$) between trust and overall satisfaction, Ellis and Shockley-Zalabak (2001) found that there was a strong linear relation between trust in management and satisfaction ($r=.88$) and Robinson and Rousseau (1994) found a correlation of .69 ($p=.01$) between trust and satisfaction. Fulk, Brief, Barr (1985) found a correlation of .47 ($p=.05$) between the employee's trust in management and how he or she perceived the fairness and accuracy of feedback (a component of satisfaction). Barrett (2000) discusses the trust relationship between management and employees regarding safety (a component of job satisfaction). Barrett (2000) notes that when employees perceive a lack of concern on the part of management regarding safety issues they subsequently do not take further concerns to management because there is no belief that those concerns will be dealt with. This leads to problems with satisfaction in other areas and the greater possibility of injuries resulting from unsafe equipment and practices.

There is not, however, a great deal of literature regarding the importance of the trust relationship between nurses and management in hospital settings. The literature that exists, however, does indicate that trust is an important factor in satisfaction. Armstrong-Stassen, Cameron, Mantler, Horsburgh (2001) found in their paper, examining the effects of hospital amalgamations, that trust was strongly related to job satisfaction ($r=.47$, $p=.001$). In their paper examining burnout and nurses Laschinger, Shamian, Thomson (2001) found that while organizational trust (defined as trust that an employer will be straightforward and follow through on commitments) had relatively low levels of direct correlation with job satisfaction, organizational trust was strongly correlated to organizational characteristics (like autonomy and decision making authority; similar to what this study has defined as sources of job satisfaction) which were then, in turn, correlated strongly with job satisfaction.

2.7 Relationship between Trust and Intentions to Remain in Hospital

The relationship between trust and intentions to remain is one that hasn't been explored in the same depth as the trust and job satisfaction relationship. As the theoretical model shows (Figure 1), the primary linkage between trust and intentions to remain is through job satisfaction but that does not mean there are no direct relationships discussed in the literature.

Arnold, Barling, Kelloway (2001) found that there was a correlation of .70 between intentions to remain and trust while Robinson and Rousseau (1994) found a correlation of -.18 ($p=.05$) between trust and intent to leave (hence the negative correlation) and a correlation of .39 ($p=.01$) between trust and intentions to remain.

Armstrong-Stassen, Cameron, Mantler, Horsburgh (2001) found in their paper, examining the effects of hospital amalgamations, that trust was strongly related to turnover intentions ($r = -.45$, $p = .001$)

3.0 PURPOSE OF STUDY

3.1 Gap in Literature

An apparent gap in the literature pertaining to the management-nurse satisfaction/retention relationship, and the one this thesis will explore, is how trust factors into the picture. We have seen, in other organizations, how the trust between employers and employees leads to job satisfaction and retention but there is currently very little literature that looks specifically at how nurses' trust in management relates to job satisfaction and retention. Given the importance of trust in other organizations, one would assume that it is likely that trust occupies an equally important place in nursing-management relationships.

3.2 Study Objectives

1) To determine the relationship between nurses' trust in management and their job satisfaction.
2) To determine the relationship between nurses' trust in management and their intentions to remain working in the hospital they are currently at.
3) To determine the relationship between nurses' trust in management and their intentions to remain in nursing.
4) To determine the relationship between job satisfaction and intentions to remain working in the hospital.
5) To determine the relationship between job satisfaction and intentions to remain in nursing.

6) To determine the relationship between job satisfaction and the sources of job satisfaction outlined in the literature.

7) To determine the relationship between intentions to remain at the hospital and ties in the community.

3.3 Study Hypotheses

1) There is a positive relationship between trust in management and job satisfaction.

2) There is a positive relationship between trust in management and intentions to remain in the hospital.

3) There is a positive relationship between trust in management and intentions to remain in nursing.

4) There is a positive relationship between job satisfaction and intentions to remain in the hospital.

5) There is a positive relationship between job satisfaction and intentions to remain in nursing.

6) There is a positive relationship between job satisfaction and the sources of job satisfaction.

7) There is a positive relationship between intentions to remain at the hospital and ties to the community.

4.0 METHODS

4.1 Description of Project

The work detailed in this paper was part of a larger study entitled "Motivators and Trust as Explanatory Factors in Northern Hospital Nurses' Intentions to Remain and Obligation Attitudes." The purpose of this research project was to gather data that would allow the examination and understanding of factors in the workplace that explain hospital nurses' work attitudes. To do this effectively, it was decided that the project would have both a quantitative component and a qualitative component. The project required ethics approval due to its investigative nature and received approval from the University of Northern British Columbia and the BC Northern Health Authority. The bulk of this project began in January 2002. Interviewing of nurses was started in April 2002 and completed in October 2002 and data entry was completed by December 2002. The nurses participating in this study were from hospitals throughout Northern BC. Funding for this project was provided by the British Columbia Rural and Remote Health Research Institute.

4.2 Sample

To obtain a rough estimate of the population of northern BC, data from Statistics Canada (2001) was used. When the populations of all the towns that have hospitals in the north are added together, a population estimate of 258,974 is reached (see Appendix A for calculation of population estimate). This number is likely a little low because only towns that have hospitals are being used. However, census agglomeration area data from Statistics Canada (2001) does include some of the small

villages and settlements that surround the bigger centres. According to data from the Canadian Institute for Health Information (2002), Urban BC has a nursing population of 70.6 nurses per 10,000 people. Extrapolating from these numbers, there should be approximately 1800 RNs in the North. According to the Canadian Institute for Health Information only 65.6% of these nurses are hospital nurses (the focus of the study), reducing the possible pool of nurses to approximately 1200. Given that this study sampled 123 nurses, it has sampled approximately 10% of the available pool of nurses. According to Cohen (Hurlburt, 2003), for a study with medium effect size (defined as a correlation greater than .3 but less than .5, the category into which the majority of the correlations in this study fall) and an alpha =.05, 66 pairs of observations are necessary to have a power=.8 (an 80% chance of correctly rejecting the null hypothesis). Since this study has a minimum of 110 pairs for each correlation, it more than meets this requirement.

4.3 Initial Contact/ Recruiting Participants

To begin the project, contact was made with the nursing managers at the hospitals within the study area. Nurse managers were asked if they would be willing to receive a package of recruitment posters to display in their hospitals. All managers contacted were agreeable to displaying the posters. Posters were mailed out to the nurse managers with a note of thanks for their willingness to assist with the study.

The recruitment posters (Appendix B) were a single 8 1/2 x 14 sheet of paper with a brief synopsis of the study, a clear explanation of where funding for the project was coming from (this seemed an important thing to specify as the health authorities

in British Columbia were undergoing a massive restructuring at the time and there was a wish to clarify the fact that this project was not associated with the provincial government or the hospital) and contact information. Two versions of the poster were made; the only difference between the two was that the regional poster offered a 1-800 telephone number for participants to use rather than a local number.

4.4 Collection of Data

Within approximately one week of the posters being displayed at the hospital participants began contacting the study. To be eligible to participate, nurses had to have worked at least 450 hours in the last 6 months and be at a head nurse/clinical instructor level or registered staff nurse. The former was done to ensure that the nurses being surveyed and interviewed would be likely to have sufficient knowledge of and interaction with management. The latter was done to ensure that nurses being interviewed about "higher management" were not management themselves. When it was determined that a nurse was eligible to participate in the study, a package was mailed that included an introduction letter detailing the study, what their participation in the study would involve and what they could expect to receive for participating in the study (Appendix C), an informed consent sheet (Appendix C), a copy of the survey that was to be filled out before their structured interview and a copy of the structured interview. Approximately one week after mailing the package, the participants were given a follow-up call to ensure they had received their package, to ask if they

had any questions and to arrange a time to conduct the structured interview. The distribution of packages began in early April and distribution of packages ceased in October .

4.5 Participation Gift

When undertaking this study, it was recognized that nurses are busy individuals. This was why it was decided that the nurses would be offered a gift to thank them for their participation in the study. The nurses were given a gift worth approximately $50.00; it was felt that this amount adequately compensated the participants for the two hours of time the survey and interview portions of the study were expected to take.

4.6 Survey Instrument

The survey used in this study was a combination of a number of different surveys. The first section of the survey collected demographic information as well as information about how long the participant had been nursing, how long they had been at the hospital and whether they worked full time, part time or casual. The second section of the survey dealt with ideas of commitment, job satisfaction, trust and retention. This section used a Likert-style scale that was anchored with "1=strongly disagree" and "5=strongly agree" while 2, 3 and 4 were equivalent to "disagree", "neither agree nor disagree" and "agree", respectively. The third section dealt with obligations, both employer and employee. This section used a Likert-style scale that was anchored with "1=Not Obligated" and "5=Absolutely Obligated" while 2, 3, and 4 are equal to "Slightly Obligated", "Fairly Obligated" and "Very Obligated", respectively.

The final section dealt with the characteristics of the participant's ideal job. The Likert-style scale for this section was anchored with "1=very unimportant" and "5=very important" while 2, 3, and 4 were equivalent to "not important", "neither important nor unimportant" and "important" respectively. A complete copy of the survey is available in Appendix D but it is important to understand that not all questions asked in the larger study were of interest in this thesis. For the purposes of this thesis, only select sets of questions from the second section of the survey (Job Organization and Beliefs) were used. These sets of questions (detailed in the following sections) represent complete sub-scales that have been shown to be valid measures for assessing the concepts of job satisfaction, trust, intentions to remain in hospital and intentions to remain in nursing.

4.6.1 Job Satisfaction

Questions dealing with job satisfaction came from Hackman & Oldham (1980:282, 305) and were inserted as written into the questionnaire. The questions asked were part of a larger job diagnostic survey but the questions used dealt specifically with job satisfaction. The questions include: Generally speaking, I am satisfied with this job; I frequently think of quitting this job (reverse scored); and I am generally satisfied with the kind of work I do on this job. The reverse scoring of the above question was maintained in the larger survey (as were the other reverse scored variables). Reverse scored variables are used in surveys as a form of validation or "check" to ensure that the points on the scale that participants are picking truly represent their answers and that they aren't just answering by rote. The scale used to measure these

variables was shifted from a 7 point scale to a 5 point scale by collapsing points 2 and 3 and points 5 and 6 on the original scale. This was done to give the scale continuity with already existing survey questions and was anchored with strongly disagree (1) and strongly agree (5). Hogan & Martell (1987) re-examined the questions used for job satisfaction and found them to have a Cronbach's alpha (internal consistency) of .82. A fourth question, Overall, I am satisfied with my job, was developed for this project and was included in the job satisfaction questions that were asked in this study. This question is very similar to the one from Oldham & Hackman; a reliability analysis shows it to have a Cronbach's alpha of .92 when compared to the question from Oldham & Hackman's study.

In addition, job satisfaction is also examined through the sources that contribute to it (autonomy, feedback, management's views, decision making authority, safety and opportunities for advancement). Questions that deal with the sources that contribute to job satisfaction are not taken from specific scales, but instead they operationalize the characteristics of the job characteristics model and needs theory. Autonomy (and decision making authority, which is a part of autonomy) and feedback come from the job characteristics model and are considered to be core job characteristics. It is widely maintained that individuals with higher levels of these characteristics tend to have higher levels of satisfaction (McShane, 2004). Needs theory, specifically the ERG theory, groups human needs into three main categories (existence, relatedness and growth); this theory maintains that these needs are instinctive and hierarchi-

cal and that individuals progress to or regress from higher levels depending on their fulfilment. Safety is an existence need, management's views fall within relatedness needs and opportunities for advancement are growth needs (McShane, 2004).

4.6.2 Trust

Questions that examined trust in management were taken from Mayer & Davis (1999:136). The internal consistency for these questions was evaluated by Mayer & Davis and found to have a Cronbach's alpha of .82. The questions were altered slightly to reflect the nursing focus of the questionnaire; this condensing was done in order to help shorten the length of the overall survey to something that could be completed, by the majority of the participants, in an hour. The final questions used in the survey were: I would be willing to let management have complete control over my future in the hospital and issues that are important to me and I would be willing to give management a task or problem that was critical to me, even if I could not monitor their actions. All questions also used a five point Likert-style scale and had anchors of strongly disagree (1) and strongly agree (5).

4.6.3 Intentions to Remain

Questions that measured intentions to remain were taken from Chatman (1991) These questions were adopted by Robinson (1996) and found to have an internal consistency, measured by Cronbach's alpha, of .86. For use in this study, the questions outlined in Chatman and Robinson were modified as they were originally used in a business environment and this study was using them in a nursing environment and we believed it was important to have the questions appear as relevant and

specific as possible. In addition, intentions to remain questions were asked about three separate areas. The same set of questions was used to assess the participants' intentions to remain at their hospital, in nursing and in Northern BC. The modified questions used to assess intentions to remain in nursing include: I would prefer a job other than nursing; If I have my way, I will be nursing 3 years from now; and I intend to remain in nursing. The modified questions used to assess intentions to remain in the hospital include: I would prefer a job outside the hospital, If I have my way; I will be working in the hospital 3 years from now; and I intend to remain with the hospital. The wording of the questions was also changed from "you" focussed questions to "me and my" focussed questions. This change created questions that were in keeping with the style of the other questions asked in this section of the study. All questions used the same 5 point Likert-style scale and were anchored with strongly disagree (1) and strongly agree (5).

4.6.4 Ties in the Community

The ties in the community variable is also used in relation to the intentions to remain hospital questions. The questions used to assess community ties were 5 point Likert-style scales anchored with strongly disagree (1) and strongly agree (5). The ties items were not part of a published scale, instead they operationalized relatedness needs from needs theory (McShane, 2004). As discussed in the literature review, family and community ties may alter nurses's intentions to remain at the hospital, regardless of their feelings about the hospital itself.

4.6.5 Reverse Scoring

Reverse scoring is a technique often used in surveys to ensure the veracity of the data collected. Items are asked in a reverse manner from the other items in a sub-scale but when using the item to calculate a mean, the results are reversed (eg on a 5 point Likert-style scale, 1 becomes 5, 2 becomes 4, 4 becomes 2, 5 becomes 1 and 3 stays as it is). Clark & Payne (1997) discuss that the means of reverse scored items are often lower that the means of other items in the sub-scale. This is often because participants answering the questions do not look closely at the actual question asked and simply answer the way they have been answering most often. In some instances, a decision may be made to remove or alter the sub-scale if the check performed by reverse scoring indicates that participants have not understood or read the question. For this study, however, the means of the reverse -scored items (I frequently think of quitting this job-job satisfaction sub-scale; I would prefer a job other than nursing, I would prefer a job outside the hospital-intentions to remain sub-scales), while lower, do not change the composite reliability below acceptable levels for the sub-scale. The means for reverse-scored variables presented in this paper represent the scale after it has been reversed.

4.6.6 Demographic Variables

Various demographic variables were used in this study to help group the participants. Gender, age, marital status, children, education level, employment status, time in current position, time in current organization and time in nursing. Age was

measured in two different ways. The main survey asked participants to provide an age range while a secondary, quality of life survey provided an exact age of participants.

4.7 Structured Interview - Procedure

Interviews were done at the convenience of the nurses to the greatest degree possible. The interviews were conducted in a variety of locations. Office space was made available at the university, the option of coming to the nurse's home was given and some nurses chose to be interviewed at the hospital. Interviewing at the hospital was not originally a study option as there was a concern that nurses interviewing at the hospital would not feel that they could speak freely or that there would be concerns about who overheard what they said. When this concern was shared with the nurses, however, none of them felt that they could not speak as freely in the hospital setting as they could in their own homes or a university office. For regional interviews, the hotel room of the interviewer or space at the hospital was generally used although some interviews were conducted at the homes of the participants. For the face to face interviews, the interview began with the collection of the survey and the assigning of a case number. Case numbers were assigned consecutively for the participants. Once introductions were done and the survey was collected, the participant was given a chance to ask questions about anything he or she did not understand (in the survey, the structured interview, the consent form or the study as a whole) and the consent form was signed by both the participant and the interviewer. A tape recorder with a table microphone was used to record the interview onto 90 minute

cassette tapes. At the conclusion of the interview, the cassette tapes were labelled with the case number. In some cases, a time to do a face to face interview could not be arranged. In these cases, the interview was conducted over the phone using a recording device that hooked into the tape recorder and the telephone handset. The participant was still given the opportunity to ask questions and obtain clarification. At the conclusion of the interview, participants were asked to send in their survey and signed consent form, if they had not already done so, and the cassette tape was labelled with their code number. Upon receipt of the questionnaire, the informed consent was signed by the interviewer, the survey was labelled with the appropriate code number and any information that could identify that survey from others was discarded (e.g. envelope, etc).

4.7.1 Structured Interview - Questions

The questions in the structured interview were asked in the order they appear on the sheet (see Appendix F) and were asked exactly as printed. Follow up questions were asked, depending on the response of the participant, to help clarify and expand upon the answers given. Care was taken not to ask questions that could be considered 'leading' and the tapes were listened to by the non-interviewing researcher (RT) to check for consistency in questioning and use of leading questions. The questions contained in the structured interview were developed specifically for this study. Motivational theory, in particular needs theory (the idea the people's behaviour is driven by a requirement to satisfy certain needs), was used as the guideline to develop the questions (McShane, 2004). Questions from the structured interview

that were utilized in this study include: How much do you trust management?; What do you believe are management's views of nurses?; Do you have sufficient autonomy in your work?; Do you have sufficient decision making authority to do your job effectively?; Are there advancement opportunities either within nursing or in the hospital for you?; and Is the feedback you get on how you are doing your job sufficient and beneficial to you?. The validity of the measurement of the concepts in the structured interview has not been determined by other studies; given the broad nature of these concepts, however, it was decided that it would be more informative to have the nurses self-define the concepts in their answers. In this way, the researchers have not biased the study by introducing their own concept definitions.

4.8 Input of Data

Since the questions in the survey were mainly Likert-style questions, they already contained the coding used to input them into the statistical program. A database was set up in SPSS (SPSS Inc., 1999) and the input of the questionnaires was done as they were received. The demographic section was coded by simply converting a nominal answer to a number (e.g. female=1, male=2). The structured interview was more difficult to input into SPSS (SPSS Inc., 1999) as the answers were given verbally rather than in numeric form. To ensure that the interview data could be used both qualitatively and quantitatively the interview was first recorded onto paper. This was not strictly a transcription, instead simply the main points that answered the question were recorded. It became apparent, however, that some aspects of data from the structured interview would be better served through quantitative analysis.

To this end, a coding system (1 to 5, each with answers associated) was developed for each question (see Appendix F) and the synopsis of the question was read and matched up with the code that best matched the participant's answer. To ensure the reliability of this coding, it was done 3 times: once by the researcher who did the synopsis transcriptions (RT), once by the researcher who did the interviews (HS) and once by a researcher who was completely independent of the project and had not heard the interviews and had only seen the synopses of the interviews (BO). The 3 answers for each question were then compared and a inter-rater reliability analysis was performed to ensure the code accurately reflected the answer given by the participant. Inter-rater reliability, for the questions being used in this paper are detailed in Appendix G. The structured interview questions of interest showed a total agreement (where all three raters agree) of between 20 and 60% and a close agreement (where two raters agree and the third differs by only one point) of between 80 and 95%. To form the variable that would be used in analysis, the scores of the three raters were averaged to give a single number. The median of the three scores was also considered for use as variable but since the median and average scores had a correlation of .976, the average score would be used to maintain consistency with the other variables being used.

4.9 Data Analysis

Data collected from the survey and structured interview was coded and entered on a Dell Inspiron 3500 laptop computer. All of the statistical analysis was completed using SPSS 10.0.5 (SPSS Inc., 1999). Data from the demographic portion of

the survey was treated as nominal data. Data from other portions of the survey and the structured interview was more problematic. Data in these areas came from the Likert-style scales used to collect the data and while Likert-style scales are technically ordinal measures, they can and have been used successfully as interval data. Zumbo, B.D. & Zimmerman, D.W. (1993:390) concluded that there was "no need to replace parametric statistical tests by nonparametric methods when the scale of measurement is not interval. As well, Jaccard and Wan (1996: 4) found that, "for many statistical tests, rather severe departures (from intervalness) do not seem to affect Type I and Type II errors dramatically." The reasoning behind using the Likert-style scales as interval data is that it allows the researcher to perform parametric tests; these tests yield more interpretable results. To assess the normality of the data used in this study, the histograms produced by the individual variables were overlayed with a normality curve and the fit of the variable within the curve was examined; all variables examined appeared near-normal. In addition, for the variables of interest, both the parametric and non-parametric tests were run to see if differing results were produced. These tests included: t-tests/Mann-Whitney U, ANOVA/Kruskal-Wallace, and Pearson/Spearman's Rho correlations. For all parametric and non-parametric tests, $p \leq .05$ was considered to be significant. Both non-parametric and parametric tests were run as a type of sensitivity analysis; Likert-style scales, although accepted for use with parametric tests, are not truly continuous data and therefore it seemed prudent to do both types of testing to see if similar results were obtained. Similar results for all tests were obtained, therefore only the parametric results are reported.

Scheffe's test was used as a post-hoc analysis for the ANOVA tests. Scheffe was chosen because it is a robust test and is able to handle unequal sample sizes (Glass, G.V. & Hopkins, K.D., 1996). Cronbach's alpha was used to determine the composite reliability of the sub-scales. For the variables, job satisfaction, intentions to remain in nursing, intentions to remain in the hospital and trust (survey), the composite reliability was to examined to ensure that the items in the sub-scale could be combined into a single item while still accurately reflecting the responses of the participants. The resulting composite item was then averaged so all means being compared and discussed would be on the same 5 point scale.

5.0 RESULTS

This study recruited 123 nurses from hospitals throughout northern BC. This was slightly less than our goal of 150 participants from the study region.

5.1 Demographics

Figure 2 Pie chart of age categories of nurses in the study.The majority of nurses who took part in this study were women (95.1%). Ages are shown in Figure 2 and the largest group of nurses is between 41 and 50 years old.

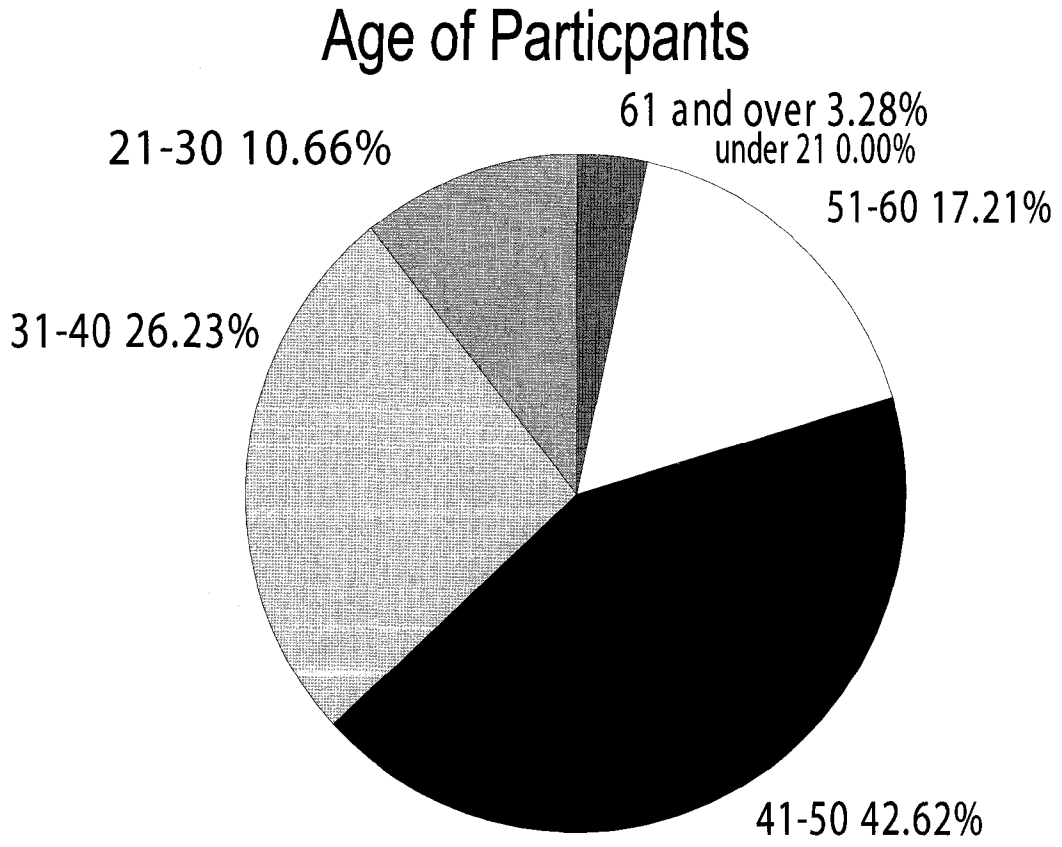

Figure 2 Pie chart of age categories of nurses in the study.

75.4% of the nurses were married and 63.1% had children. 75.4% of nurses had a diploma while 21.3% had bachelor's degrees and 3.3% held graduate degrees. The majority worked full time (67.2%) and 80.3% had been with their current organization more than 6 years with 61.5% having over 10 years with their current hospital. A third had been in their current job over 10 years. Half of the nurses interviewed had been nursing for more than 20 years. Table 1 shows how the data collected in this study is similar to data collected by the Canadian Institute for Health Information for urban British Columbia.

The data used to calculate statistics for urban BC came from Statistics Canada, by way of the Canadian Institute for Health Information. It is important to note that urban and rural data from Statistics Canada do not follow the typically understood

Table 1 Comparison of CIHI Data and Study Data

Year 2000		Urban BC N=24,381+	Our Study N=122	p-value
Average Age (yrs)		44.2	43.1**	.279`
Gender (%)	male	4.1	4.9	.6866^
	female	95.9	95.1	
Employment Status (%)	full-time	67.9	67.2	.8808^
	part-time	32.1	32.8***	
Education Level (%)	diploma	71.2	75.4	.4750^
	bachelor's	26.4	21.3	
	master's/doctorate	2.5	3.3	

Canadian Institute for Health Information, 2000: 82
**average age of 98 participants (taken from quality of life survey)
***includes both part time and casual workers
+includes all RNs (hospital, community, etc)
^ chi square
`t test (one sample compared against Urban BC average)

definitions of rural and urban. For Statistics Canada purposes, urban areas are not only the large urban areas like Toronto and Vancouver (referred to as Census Metropolitan Areas) but also areas that have an urban core that range from 10,000 to 99,000 people, plus the adjacent urban and rural and areas. These are known as Census Agglomeration Areas (CA). In addition to the population requirements, 50% or more of the employed labour force living in neighbouring Census Subdivisions (CSD) must commute to work in the urban core or 25% or more of the employed labour force working in neighbouring CSDs commutes to work from the urban core. A CSD is a grouping of enumeration areas and is the smallest standard geographical area for which census data has been reported. In British Columbia, this means that many of the smaller towns that are traditionally considered rural have been amalgamated, for census purposes, into a CA and are therefore counted in the urban BC numbers. This is why this study compare itself only to the urban BC statistics. There is not a large enough group of rural data left when CAs are removed to make a comparison to the rural data provided by the Canadian Institute for Health Information.

In comparing the data for Urban BC and the data collected by this study, we find that there is no significant difference between the two sets of data in terms of age, gender, employment status or education level.

5.2 Job Satisfaction - Central Tendencies

As discussed in the methods section, there are four different questions that attempt to understand nurses' levels of job satisfaction (Table 2).

Table 2 Central Tendencies of Job Satisfaction Variables

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Satisfaction-overall	122	1	5	3.83	.86
Satisfaction-general	121	1	5	3.71	.89
Satisfaction-remain	121	1	5	3.18	1.19
Satisfaction-work	122	1	5	4.06	.73
Satisfaction	**121**	**1.25**	**5**	**3.69**	**0.69**

Satisfaction-overall: Overall, I am satisfied with this job;
Satisfaction-general: Generally speaking, I am satisfied with this job;
Satisfaction-remain: I frequently think of quitting this job; (reverse scored)
Satisfaction-work: I am generally satisfied with the kind of work I do on this job;
Satisfaction-average: average of four job satisfaction variables.
NB: Bolded variables are those being used in the theoretical model (Figure 1, p 4)

When we calculate the composite reliability, through Cronbach's alpha, of the job satisfaction sub-scale, it is found to have an alpha of .7190. The alpha is high enough that we are able to look at the combined job satisfaction sub-scale rather than the individual items. Job satisfaction has a mean of 3.69 and a standard deviation of .68 with a range of 1.25 to 5. In examining the individual questions, the question with the highest mean (4.06, sd=.73) is one that asks about satisfaction with the kind of work that is done in the job (I am generally satisfied with the kind of work I do on this job-satisfaction-work) while question with the lowest mean asks I frequently think of quitting this job (satisfaction-remain) (mean=3.18, sd=1.19). The two remaining questions, dealing with job satisfaction, are both general questions that look at the job as a whole, not just the kind of work done on the job. The question, overall, I

am satisfied with this job (satisfaction-overall), had a mean of 3.83, sd=.86 while the question, generally speaking, I am satisfied with this job (satisfaction-general) had a mean of 3.71, sd=.89.

5.2.1 Job Satisfaction - Contributing Variables- Central Tendencies

In addition to the 4 questions that directly measure job satisfaction, there are also a number of variables that contribute to job satisfaction. The central tendencies for these variables are outlined in Table 3.

Table 3 Central Tendencies of Variables that Contribute to Job Satisfaction

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Safety-feeling	121	1	5	3.09	1.13
Safety-place	121	1	5	2.96	1.09
Safety-average	**120**	**1**	**5**	**3.02**	**.99**
Mgmt views	**116**	**1**	**5**	**2.38**	**1.08**
Autonomy	**113**	**1**	**5**	**4.07**	**0.95**
Decision making	**116**	**1**	**5**	**3.80**	**1.07**
Advance	**116**	**1**	**5**	**2.85**	**1.16**
Feedback	**116**	**1**	**5**	**2.70**	**1.02**

Safety-feeling: I feel safe in my job
Safety-place: This is a safe place to work
Safety-av: average of two safety variables
Mgmt views: What do you believe are management's view of nurses?
Autonomy: Do you have sufficient autonomy in your work?
Decision Making: Do you have sufficient decision-making authority to do your job effectively?
Advance: Are there advancement opportunities either within nursing or in the hospital for you?
Feedback: Is the feedback you get on how you are doing your job sufficient and beneficial to you?
NB: Bolded variables are those being used in the theoretical model (Figure 1, p 4)

Composite reliability (as measured by Cronbach's alpha) for the safety variables is .7395. This level of reliability indicates that the items from the safety variable sub-scale can be added together and averaged into a single safety variable. Means for the variables that contribute directly to job satisfaction ranged from 2.38 (management's view of nurses) to 4.07 (sufficient autonomy).

5.3 Intentions to Remain in Hospital- Central Tendencies

The central tendencies of the intentions to remain in hospital variable are outlined in Table 4.

Table 4 *Central Tendencies of Intentions to Remain at Hospital Variable*

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Hospital-three years	121	1	5	3.41	1.12
Hospital-prefer outside	121	1	5	3.17	1.19
Hospital-intentions	121	1	5	3.27	1.02
Hospital-average	**120**	**1**	**5**	**3.29**	**0.88**

Hospital-three years: If I have my way, I will be working in the hospital 3 years from now;
Hospital-prefer outside: I would prefer a job outside the hospital (reverse scored);
Hospital-intentions: I intend to remain with the hospital;
Hospital-average: average of the three hospital items.
NB: Bolded variables are those being used in the theoretical model (Figure 1, p 4)

Questions dealing with intentions to remain at the hospital were asked in three different ways. The range of responses for these question was 1 to 5 and the questions had an average response of 3.29 (sd=.88). The Cronbach's alpha (composite reliability) for the three items in the "remain at hospital" sub-scale was high enough (alpha= .6918) that they could be averaged and used as a single measure. Although

the computed and averaged "remain at hospital" score will be used, it is worthwhile to examine the individual questions to see how responses vary. The first question, If I have my way, I will be working in the hospital 3 years from now (hospital-three years), had the highest mean of the three questions at 3.41 (sd=1.12) followed by I intend to remain with the hospital (hospital-intentions) (mean=3.27, sd=1.02). The question I would prefer a job outside the hospital (hospital-prefer outside) has the lowest mean of the three questions (mean=3.17) but has the highest standard deviation (sd=1.19).

5.4 Ties in the Community - Central Tendencies

The central tendencies for the variables dealing with ties to the community are outlined in Table 5.

Table 5 Central Tendencies of Ties to the Community Variable

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Ties-personal	122	1	5	4.07	1.10
Ties-family	122	1	5	3.41	1.44
Ties-average	**122**	**1**	**5**	**3.74**	**1.13**

Ties-personal: I have ties to this community.
Ties-family: My family ties me to this community.
Ties-average: average of two ties variables.
NB: Bolded variables are those being used in the theoretical model (Figure 1, p 4)

The ties in community variable has a computed average of 3.74 (sd=1.13) and its composite reliability (as measured by Cronbach's alpha) is .7281. Of the two items that make up the sub-scale, the item asking I have ties to this community had a mean of 4.07 (sd=1.10) while the item asking My family ties me to this community had a mean of 3.41 (sd=1.44). Both items as well as the averaged sub-scale had ranges of 1 to 5.

5.5 Intentions to Remain in Nursing - Centrai Tendencies

Central tendencies for the intentions to remain in nursing variable are outlined in Table 6.

Table 6 Central Tendencies of Intentions to Remain in Nursing Variable

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Nursing-prefer outside	122	1	5	3.88	1.1
Nursing-intentions	121	1	5	4.25	0.93
Nursing-three years	121	1	5	3.98	1.05
Nursing-average	**120**	**1**	**5**	**4.04**	**0.87**

Nursing-prefer outside: I would prefer a job outside of nursing (reverse scored);
Nursing-intentions: i intend to remain in nursing;
Nursing-three years: If I have my way, I will be nursing 3 years from now;
Nursing-average: average of three remain in nursing items.
NB: Boided variables are those being used in the theoretical model (Figure 1, p 4)

Questions dealing with the participants intentions to remain in nursing were asked in the same style as the hospital questions and simply substituted "nursing" for "hospital." The range of responses (Table 6) seen for these questions were 1 to 5, and their average response was 4.04 (s.d.=.87). Again, the composite reliability, measured by Cronbach's alpha, of "remain at hospital" sub-scale is enough (alpha=.8019) that a single measure can be computed from the three items. The question,I would prefer a job outside of nursing (nursing-prefer outside), (mean=3.88, sd=1.10) had the lowest of the three means while the question regarding staying in nursing for an indefinite period of time (I intend to remain in nursing-nursing-inten-

tions) (mean=4.25, sd=.93) scored higher than the question regarding remaining in nursing for the next three years (If I have my way, I will be nursing 3 years from now-nursing-three years) (mean=3.98, sd=1.05).

5.6 Trust - Central Tendencies

Central tendencies for trust variables are outlined in Table 7.

Table 7 Central Tendencies for Trust Variables

Variable	N	Min	Max	Mean	Std. Deviation
Trust-future	121	1	2	1.23	0.42
Trust-task	122	1	5	1.91	1.00
Trust-survey	**121**	**1**	**3**	**1.57**	**0.61**
Trust-interview	**115**	**1**	**4.33**	**2.34**	**1.04**

Trust-future: I would be willing to let management have complete control over my future in the hospital and issues that are important to me
Trust-task: I would be willing to give management a task or problem that was critical to me, even if I could not monitor their actions.
Trust-survey: average of trust-future and trust-task items
Trust-interview: inter-rater's combined rating of trust management variable from structured interview
NB: Bolded variables are those being used in the theoretical model (Figure 1, p 4)

There are two different types of trust dealt with in this study; the first, through the Likert-style scale survey, deals with vulnerability and the participants willingness to let others have control over things that are important to them (I would be willing to let management have complete control over my future in the hospital and issues that are important to me) and to give others a task to do, unsupervised, and trust it will be completed in an appropriate manner (I would be willing to give management a task or problem that was critical to me, even if I could not monitor their actions). In this study (Table 7), participants have a mean of 1.23 (sd=.42) for the question about

allowing management to have control over their future and issues that are important to them and a mean of 1.91 (sd=1.00) for the question regarding giving management an important task to do if the participant could not be there to supervise. While the means of these two questions do not differ greatly, the range of the questions do. For the former question regarding issues and future, none of the participants scored the question above a 2 (disagree) but on the later question regarding trust with a specific task, participants scored the question in the whole range of possible answers (1-5). When the two scores are averaged (Trust-survey), the mean is 1.57 with a standard deviation of .61.

The second type of trust, dealt with in the structured interview, was a more general inquiry about trust. The general question from the structured interview regarding trust (how much do you trust management-trust-interview) was scored slightly higher, on average, by the participants (mean=2.34, sd=1.0). Nurses who indicated a low level of trust in management, however, had numerous reasons that they did not trust management. These reasons include: being lied to by management ("[I] have been lied to and threatened, almost every nurse has been lied to"; "say one thing and do another. Never know what they are going to do until they do it. Don't trust what they say until it actually happens"), a feeling that management was invisible ("I don't [trust them] because I don't know who they are. To change the level of trust they should be here and be part of the operation here"), a lack of support from management ("I have never trusted management really. They will do what they have to do - [they] see us as worker units. The moment there is any trouble they will not sup-

port you."), a feeling that management had no understanding of nurses' jobs ("Don't know them - difficult to trust someone you don't know and don't feel they appreciate at all what you are doing"), and that there was too much changeover in management ("These guys are loose cannons - how do we know who will be here in the future?").

5.7 Correlations

Correlations offer insight into relationships between variables and the strength of those relationships but due to the cross-sectional nature of this study, it is impossible to do more than speculate about possible causes for relationships between variables. For the purposes of this study, small correlations will be those where $r<.3$, medium correlations will be defined as those where $.3 \leq r<.5$, and large correlations will be defined as those where $r \leq .5$. The small, medium and large designations are somewhat arbitrary (Hurlburt, 2003) but serve to indicate the practical significance that the correlations have.

5.7.1 Correlation Between Job Satisfaction and Trust

The relationships between trust, job satisfaction and the sources of job satisfaction are detailed in Table 8.

Correlations with small, but significant, results include: satisfaction vs autonomy, satisfaction vs feedback, satisfaction vs trust-av, mgmt view vs decision making, mgmt views vs advance, decision making vs feedback, feedback vs trust-av, feedback vs trust-int and trust-av vs trust int. Correlations with medium, but significant, results include: satisfaction vs safety, satisfaction vs mgmt views, satisfaction vs decision, satisfaction vs trust-int, safety vs mgmt views, safety vs decision, safety vs

Table 8 Correlation of Job Satisfaction, Sources of Job Satisfaction, and Trust Variables

	satisfaction	safety-av	mgmt views	decison making	autonomy	advance	feedback	Trust-av	Trust-int
satisfaction	1.000								
safety-av	**.491****	1.000							
mgmt views	**.313****	**.371****	1.000						
decision	**.311****	**.393****	**.255****	1.000					
autonomy	**.244****	0.144	.125	**.506****	1.000				
advance	.140	0.098	**.205***	0.088	0.087	1.000			
feedback	**.295****	**.355****	**.416****	**.239****	.161	.096	1.000		
Trust-av	**.259****	**.374****	**.329****	.137	0.15	.013	**.231***	1.000	
Trust-int	**.378****	**.447****	**.330****	.149	.146	.177	**.257****		1.000

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

feedback, safety vs trust-av, safety vs trust-int, mgmt views vs feedback, mgmt views vs trust-av, and mgmt view vs trust-int. Autonomy vs decision making is the only correlation in Table 8 with a large result.

Scatter plots offer a pictorial representation of a correlation and help to show the magnitude and direction of a relationship. Scatter plots are also useful tools in examining any deviations from traditional correlation "shapes". In Figure 3 (Appendix H) we can see a definite, positive correlation between trust in management (survey) and job satisfaction. The positive nature of this correlation is somewhat tempered by the presence of points in the lower, right hand corner that indicate a negative correlation. Figure 4 (Appendix H) gives a similar picture of the relationship between trust in management (interview) and job satisfaction. Again, the positive nature of the correlation is tempered by the presence of negatively correlated points in the lower, right hand corner of the plot.

5.7.2 Correlation Between Intentions to Remain in Hospital and Trust

The relationships between intentions to remain in hospital (Hospital-average) and trust in management (Trust-survey from the survey and Trust-interview from the structured interview) are detailed in Table 9.

Table 9 Correlation between Intentions to Remain at Hospital Variables and Trust Variables

	Hospital-average	Trust-survey	Trust-interview
Hospital-average	1.000		
Trust-survey	.109	1.000	
Trust-interview	**.204***	**.261****	1.000

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Trust-survey vs Trust-interview and Trust-interview vs Hospital-average are correlations with small, but significant, results.

The positive correlations are not as clearly visible in Appendix H (Figures 5 & 6). In fact, the trust-survey vs intentions to remain at hospital correlation does not produce a significant result. Once again, however, the negatively correlated points in the lower right hand corners of the plots affect the overall correlation relationship.

Trust-survey vs Trust-interview and Trust-interview vs Nursing-average have small, but significant, results.

5.7.3 Correlation between intention to Remain in Nursing and Trust

The relationships between intentions to remain in nursing (Nursing-average), and trust in management (Trust-survey and Trust-interview) are detailed in Table 10.

Table 10 Correlations Between Intention to Remain in Nursing and Trust

	Trust-survey	Trust-interview	Nursing-average
Trust-survey	1.000		
Trust-interview	.261**	1.000	
Nursing-average	.183*	0.163	1.000

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

The scatter plots in Appendix H (Figures 7 & 8) do not show a clear positive relationship and, in fact, the correlation between intentions to remain in nursing and trust in management from the interview is not significant. Again, the points in the lower right hand corner affect the overall correlation.

5.7.4 Correlation Between Job Satisfaction and intention to Remain in Hospital

The relationships between job satisfaction (Satisfaction-av), the variables contributing to job satisfaction and intentions to remain in hospital (Hospital-av) are detailed in Table 11.

Correlations with small, but significant, results include: satisfaction vs autonomy, satisfaction vs feedback, satisfaction vs ties-av, safety vs hospital-av, mgmt view vs decision making, mgmt views vs advance, decision making vs feedback, feedback vs hospital-av. Correlations with medium, but significant, results include: satisfaction vs safety, satisfaction vs mgmt views, satisfaction vs decision, satisfaction vs hospital-av, safety vs mgmt views, safety vs decision, safety vs feedback, mgmt views vs feedback and hospital-av vs ties-av. Autonomy vs decision making is the only correlation in Table 11 with a large, significant result.

Table 11 Correlations Between Job Satisfaction and Intention to Remain in Hospital

	satisfaction	safety	mgmt views	decision making	autonomy	advance	feedback	Hospital-av
satisfaction	1.000							
safety	**.491****	1.000						
managements views	**.313****	**.371****	1.000					
decision making	**.311****	**.393****	.255**	1.000				
autonomy	**.244****	0.144	0.125	**.506****	1.000			
advance	0.14	.098	.205*	.088	0.087	1.000		
feedback	**.295****	**.355****	.416**	**.239****	0.161	0.096	1.000	
hospital-av	**.465****	**.245****	.182	.118	.117	.125	**.282****	1.000

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

The correlations illustrated in the scatter plot in Appendix H (Figure 9t) shows more of a typical positive correlation without the negative influence of points in the lower right hand corner. This is further illustrated by the higher correlation score for this variable of interest.

5.7.5 Correlation between Ties in Community and Intentions to Remain at Hospital

The relationship between ties in the community and intentions to remain at the hospital are detailed in Table 12.

Table 12 Correlation Between Ties in Community and Intentions to Remain at Hospital

	hospital-av	ties-av
hospital-av	1.000	
ties-av	**.455****	1.000

** Correlation is significant at the 0.01 level (2-tailed).

The correlation of ties-av vs hospital-av gives a medium, significant result.

5.7.6 Correlation between Job Satisfaction and Intention to Remain in Nursing

The relationships between job satisfaction (Satisfaction), variables contributing to job satisfaction and intentions to remain in nursing (Nursing-average) are detailed in Table 13.

Table 13 Correlation Between Job Satisfaction and Intention to Remain in Nursing

	satisfaction	safety	mgmt views	decision making	autonomy	advance	feedback	nursing-average
satisfaction	1.000							
safety	**.491****	1.000						
mgmt views	**.313****	**.371****	1.000					
decision making	**.311****	**.393****	**.255****	1.000				
autonomy	**.244****	.144	.125	**.506****	1.000			
advance	0.14	.098	**.205***	.088	.087	1.000		
feedback	**.295****	**.355****	**.416****	**.239****	0.161	.096	1.000	
nursing-av	**.389****	**.237****	.115	.021	.071	**.242****	**.222****	1.000

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Correlations with small, but significant, results include: satisfaction vs autonomy, satisfaction vs feedback, safety vs nursing-average, mgmt view vs decision making, mgmt views vs advance, decision making vs feedback, advance vs nursing-average, feedback vs nursing-average. Correlations with medium, but significant, results include: satisfaction vs safety, satisfaction vs mgmt views, satisfaction vs

decision, satisfaction vs nursing-av, safety vs mgmt views, safety vs decision, safety vs feedback and mgmt views vs feedback. Autonomy vs decision making is the only correlation in Table 13 with a large, significant result.

The correlations illustrated in the scatter plot in Appendix H (Figure 10) shows more of a typical positive correlation without the negative influence of points in the lower right hand corner. This is further illustrated by the higher correlation score for this variable of interest.

5.8 Demographic Groupings of Variables of Interest

In addition to observing how the variables of interest relate to one another, it is also worthwhile to see how the means of the variables change when grouped according to the demographics of the population. The demographics used here included: gender of participants, age of participants, marital status of participants, if participants had children, education level of participants, employment status of participants, time participants had been in their current position, time participants had been at their current hospital and how long the participants had been nursing. Although age and time in nursing are quite highly correlated (r=.691) it was felt that it was important to use both groupings as some nurses may have begun their careers later in life.

Table 14 shows the variables trust management (survey) and trust management (interview). There were no significant difference between the means of the demographic groupings for the trust management (survey) variable. For the trust management (interview) variable only education level (p=.019) showed significantly

different means. Scheffe's post hoc test showed that the difference in the trust management variable for the education level grouping lies between those with diploma's and those with graduate degrees (p=.048).

Table 15 uses the same demographic grouping to compare the means of the variables intentions to remain at the hospital and ties in the community. Age (p=.030), time in current organization (p=.001) and time in nursing (p=.020) showed significantly different means for the intentions to remain at the hospital variable. While Scheffe's post hoc test was unable to determine where exactly the difference in the age grouping lay, it showed the difference in the time in current organization variable lies between those who have been with the organization 1 to 5 years and those who have been with the organization greater than 10 years (p=.011) and that the significant difference among means for the time in nursing variable lies between those who have been nursing 1 to 5 years and those have been nursing more than 20 years (p=.049). For the ties in community variable, marital status (p=.000), have children (p=.000), time in current position (p=.010), time in current organization (p=.000) and time in nursing (p=.039) all had significantly different means within their groupings. According to Scheffe's post-hoc test, single nurses were significantly different from married nurses (p=.001), divorced nurses (p=.011) and separated nurses (p=.008). Nurses with children had more ties to the community than nurses without children (p=.000). Scheffe's post-hoc test showed that nurses in their current position 3 months to 1 year were significantly different from those nurses who had been there 1 to 5 years (p=.047), those who had been there 6 to 10 years (p=.014) and

those who had been there more than 10 years (p=.007). Scheffe's post-hoc test also showed that nurses who have been with their current organization less than a year are significantly different than those who have been with the organization 6 to 10 years (p=.002) as well as those who have been with the organization more than 10 years (p=.000). Scheffe's post-hoc test failed to reveal where the significant difference between the means lies for the time in nursing variable.

Table 16 uses the same demographics as the first three tables to examine the variable dealing with intentions to remain in nursing. The intent to remain in nursing variable produced no significantly different means when grouped by demographics.

Table 17 uses the same demographic grouping to compare the means of the variables job satisfaction and sufficient autonomy. Neither job satisfaction nor sufficient autonomy had significantly different means when grouped by demographics.

Table 18 uses the same demographic grouping to compare the means of the variables management's views of nurses and opportunities for advancement. For the management's view variable, only education level (p=.036) showed significant difference. Scheffe's post hoc test found nurses with diplomas to be significantly different from nurses with bachelor's degrees (p=.048). For the opportunities for advancement variable, only age (p=.047) showed a significant different. Scheffe's post-hoc test failed to reveal where that difference lay.

Table 19 uses the same demographic groupings to compare the means of the variables sufficient decision-making authority and safety on the job. The grouping of the sufficient decision making authority variable showed no significant difference

among the means. Having children was the only grouping that produced significantly different means for the safety variable. Nurses with children felt significantly less safe at work than those without children (p=.032).

Table 20 uses the same demographic grouping to compare the means of the variable feedback sufficient and beneficial. Age (p=.003) and education level (p=.034) were the groupings that produced significantly different means for the feedback variable. Scheffe's post-hoc test revealed that the difference in the age demographic lay between nurses who were 31-40 and nurses who were 41-50 (p=.013) and the difference in the education level demographic lay between diploma nurses and bachelor's degree nurses (p=.045).

Table 14 Demographic Grouping of Trust Variables

		Trust Management (Survey)				Trust Management (Interview)			
Demographic	Grouping	N	Mean	SD	Sig 2 tail	N	Mean	SD	Sig 2 tail
Gender	female	115	1.5870	.6115	.186	108	2.3519	1.0430	.422
	male	6	1.2500	.4183		6	2.0000	1.0111	
Age	21 to 30 years	13	1.8077	.8046	.173	11	2.4242	1.2210	.902
	31 to 40 years	32	1.6094	.5642		28	2.2143	.9905	
	41 to 50 years	51	1.5588	.5714		50	2.4000	1.0302	
	51 to 60 years	21	1.3333	.5774		21	2.3492	1.0877	
	greater than 61 years	4	1.8750	.6292		4	2.0000	1.1547	
	Total	121	1.5702	.6066		114	2.3333	1.0400	
Marital Status	married	91	1.5824	.6248	.898	85	2.2902	1.0116	.922
	divorced	14	1.5714	.6157		13	2.3333	.9230	
	separated	5	1.7000	.4472		5	2.6000	1.2780	
	single	9	1.3889	.5465		9	2.5556	1.3229	
	widowed	2	1.5000	.7071		2	2.5000	2.1213	
	Total	121	1.5702	.6066		114	2.3333	1.0400	
Have Children?	yes	76	1.5263	.5882	.302	70	2.3238	1.0510	.902
	no	45	1.6444	.6362		44	2.3485	1.0342	
Education Level	diploma	91	1.5220	.5912	.109	85	**2.2039§**	1.0198	**.019***
	bachelor's degree	26	1.6538	.6598		25	2.5867	1.0287	
	graduate degree	4	2.1250	.2500		4	**3.5000§**	.5774	
	Total	121	1.5702	.6066		114	2.3333	1.0400	
Employment Status	full time	81	1.5988	.6296	.707	77	2.3117	1.0164	.618
	part time	33	1.5303	.5582		30	2.4556	1.1089	
	casual	7	1.4286	.6075		7	2.0476	1.0789	
	Total	121	1.5702	.6066		114	2.3333	1.0400	
Time in Current Position	less than 3 months	5	1.5000	.5000	.583	5	2.0000	.7817	.457
	3 months to 1 year	13	1.5000	.6770		13	1.9231	.9828	
	1 to 5 years	42	1.6905	.6435		39	2.4188	1.1206	
	6 to 10 years	20	1.5750	.5684		20	2.5500	1.0218	
	greater than 10 years	41	1.4756	.5804		37	2.3153	1.0091	
	Total	121	1.5702	.6066		114	2.3333	1.0400	
Time in Current Organization	less than 1 year	5	1.8000	.5701	.476	5	2.2000	1.1926	.901
	1 to 5 years	18	1.7222	.6468		17	2.1765	.9363	
	6 to 10 years	23	1.5870	.5570		20	2.3500	.9999	
	greater than 10 years	75	1.5133	.6150		72	2.3750	1.0804	
	Total	121	1.5702	.6066		114	2.3333	1.0400	
Time in Nursing	less than 1 year	2	2.2500	.3536	.313	2	3.3333	.9428	.581
	1 to 5 years	6	1.5833	.7360		5	1.8667	.9006	
	6 to 10 years	20	1.7250	.5955		18	2.3148	1.0693	
	11 to 20 years	32	1.4688	.5671		30	2.3111	1.0093	
	greater than 20 years	61	1.5492	.6172		59	2.3559	1.0665	
	Total	121	1.5702	.6066		114	2.3333	1.0400	

§ Scheffe's post-hoc test shows a significant difference (p=.048) between the means "diploma" and "graduate degree" for the "trust management-interview" variable

Table 15 Demographic Groupings of Remain in Hospital and Ties in Community Variables

		Intent to Remain Hospital (survey)				Ties in Community (Survey)			
Demographic	Grouping	N	Mean	SD	Sig 2 tail	N	Mean	SD	Sig 2 tail
Gender	female	114	3.2836	.8971	.893	116	3.7371	1.1391	.840
	male	6	3.3333	.4714		6	3.8333	1.1255	
Age	21 to 30 years	13	3.0513	1.1043	**.030***	13	3.2692	1.4946	.430
	31 to 40 years	32	2.9896	1.0106		32	3.8594	1.1233	
	41 to 50 years	51	3.3987	.6734		52	3.7308	1.0547	
	51 to 60 years	21	3.4603	.8398		21	3.7619	1.1792	
	greater than 61 years	4	4.3333	.6667		4	4.3750	.2500	
	Total	121	3.2861	.8796		122	3.7418	1.1341	
Marital Status	married	91	3.3187	.8846	.295	92	**3.8641`**	1.0744	**.000****
	divorced	14	3.4762	.6231		14	**3.8214`**	.7748	
	separated	4	3.3333	.2722		5	**4.4000`**	.6519	
	single	9	2.7037	1.2410		9	**2.1667`**	1.0897	
	widowed	2	3.0000	.4714		2	3.0000	2.1213	
	Total	120	3.2861	.8796		122	3.7418	1.1341	
Have Children?	yes	76	3.3158	.8271	.629	77	4.0325	1.0142	**.000****
	no	44	3.2348	.9714		45	3.2444	1.1659	
Education Level	diploma	90	3.3148	.8292	.825	92	3.8043	1.1093	.485
	bachelor's degree	26	3.2051	1.0460		26	3.5962	1.1749	
	graduate degree	4	3.1667	1.0364		4	3.2500	1.5546	
	Total	120	3.2861	.8796		122	3.7418	1.1341	
Employment Status	small	60	3.4167	.8133	.249	61	3.6639	1.1822	.216
	full time	80	3.3792	.8581		82	3.8293	1.0489	
	part time	33	3.1212	.8200		33	3.6667	1.2098	
	casual	7	3.0000	1.3053		7	3.0714	1.6183	
	Total	120	3.2861	.8796		122	3.7418	1.1341	
Time in Current Position	less than 3 months	5	2.8667	1.1205	.137	5	3.4000	1.4748	**.010****
	3 months to 1 year	13	2.9487	1.0615		13	**2.7692ŧ**	1.4522	
	1 to 5 years	42	3.2222	.9126		43	**3.7326ŧ**	1.1357	
	6 to 10 years	19	3.2105	.9376		20	**4.0250ŧ**	.8955	
	greater than 10 years	41	3.5447	.6739		41	**3.9634ŧ**	.9447	
	Total	120	3.2861	.8796		122	3.7418	1.1341	
Time in Current Organization	less than 1 year	5	2.4667	1.1690	**.001****	5	**1.8000¤**	.9083	**.000****
	1 to 5 years	18	**2.7407¬**	.9115		19	**3.2368¤**	1.2289	
	6 to 10 years	23	3.2464	1.0309		23	**3.8696¤**	1.0468	
	greater than 10 years	74	**3.4865¬**	.7155		75	**3.9600¤**	.9958	
	Total	120	3.2861	.8796		122	3.7418	1.1341	
Time in Nursing	less than 1 year	2	2.8333	1.6499	**.020***	2	2.0000	.7071	**.039***
	1 to 5 years	6	2.3333§	.7303		7	2.9286	1.5660	
	6 to 10 years	20	3.2833	.9568		20	4.0500	.9018	
	11 to 20 years	32	3.1354	.8503		32	3.8125	1.0682	
	greater than 20 years	60	**3.4778§**	.8034		61	3.7541	1.1315	
	Total	120	3.2861	.8796		122	3.7418	1.1341	

¬ Scheffe's post-hoc test shows a significant difference (p=.011) between the means "1 to 5 years" and "greater than 10 years" for the "intent to remain in hospital" variable

§ Scheffe's post-hoc test shows a significant difference (p=.049) between the means "1 to 5 years" and "greater than 20 years" for the "intent to remain in hospital" variable

` Scheffe's post-hoc test shows a significant difference between the means "single" and "married" (p=.001); "single and "divorced" (p=.011); and "single" and "separated" (p=.008) for the "ties in the community" variable

ŧ Scheffe's post-hoc test shows a significant difference between the means "3 months to 1year" and "1 to 5 years"(p=.047); "3 months to 1 year" and "6 to 10 years"; and "3 months to 1 year"(p=.014) and "greater than 10 years"(p=.007) for the "ties in the community" variable

¤ Scheffe's post-hoc test shows a significant difference between the means "less than 1 year" and "6 to 10 years"(p=.002) and "less than 1 year" and "greater than 10 years"(p=.000) for the "ties in community" variable

Table 16 Demographic Groupings of Intentions to Remain in Nursing Variable

		Intent to Remain in Nursing (survey)			
Demographic	Grouping	N	Mean	SD	Sig 2 tail
Gender	female	114	4.0468	.8790	.898
	male	6	4.0000	.6992	
Age	21 to 30 years	13	4.0769	1.2992	.304
	31 to 40 years	32	4.2396	.6349	
	41 to 50 years	50	4.0200	.8232	
	51 to 60 years	21	3.7302	.9810	
	greater than 61 years	4	4.3333	.5443	
	Total	120	4.0444	.8685	
Marital Status	married	91	4.0879	.7517	.168
	divorced	13	4.0513	.9011	
	separated	5	4.2667	.3651	
	single	9	3.7778	1.6915	
	widowed	2	2.6667	.9428	
	Total	120	4.0444	.8685	
Have Children?	Yes	75	4.1378	.6912	.129
	no	45	3.8889	1.0941	
Education Level	diploma	90	3.9778	.8448	.202
	bachelor's degree	26	4.1795	.9672	
	graduate degree	4	4.6667	.3849	
	Total	120	4.0444	.8685	
	small	60	4.0000	.8415	
Employment Status	full time	81	4.0741	.8756	.165
	part time	33	4.0909	.6416	
	casual	6	3.3889	1.5835	
	Total	120	4.0444	.8685	
Time in Current Position	less than 3 months	5	3.6000	1.4795	.445
	3 months to 1 year	12	3.8333	1.2753	
	1 to 5 years	42	4.1587	.8239	
	6 to 10 years	20	3.8833	.8396	
	greater than 10 years	41	4.1220	.6902	
	Total	120	4.0444	.8685	
Time in Current Organization	less than 1 year	4	3.7500	1.8930	.736
	1 to 5 years	18	3.8889	1.1202	
	6 to 10 years	23	4.1159	.8623	
	greater than 10 years	75	4.0756	.7384	
	Total	120	4.0444	.8685	
Time in Nursing	less than 1 year	2	5	.0000	.088
	1 to 5 years	6	3.5000	1.7224	
	6 to 10 years	20	4.3333	.5514	
	11 to 20 years	32	4.1042	0.6013	
	greater than 20 years	60	3.9389	.9378	
	Total	120	4.0444	.8685	

Table 17 Demographic Groupings of Job Satisfaction and Sufficient Autonomy Variables

		Job Satisfaction (survey)				Sufficient Autonomy (Interview)			
Demographic	Grouping	N	Mean	SD	Sig 2 tail	N	Mean	SD	Sig 2 tail
Gender	female	115	3.7109	.6935	.245	108	4.0895	.9598	.270
	male	6	3.375	0.518		4	3.5000	.6383	
Age	21 to 30 years	13	3.5385	0.742	.093	10	3.8333	1.4508	.888
	31 to 40 years	32	3.5234	.6791		27	4.1481	.7971	
	41 to 50 years	51	3.7598	.6244		50	4.0733	.9338	
	51 to 60 years	21	3.7500	.7542		21	4.0159	1.0354	
	greater than 61 years	4	4.4375	.6575		4	4.3333	.3849	
	Total	121	3.6942	.6881		112	4.0685	.9546	
Marital Status	married	91	3.6923	.7013	.359	83	4.0361	1.0014	.843
	divorced	14	3.8036	.5562		13	4.1026	.7863	
	separated	5	4.1	.3791		5	4.4667	.4472	
	single	9	3.4167	.8478		9	4.0000	1.0801	
	widowed	2	3.2500	.3536		2	4.5000	.2357	
	Total	121	3.6942	.6881		112	4.0685	.9546	
Have Children?	Yes	76	3.6809	.6753	.784	68	4.0441	1.0397	.739
	no	45	3.7167	.7163		44	4.1061	.8158	
Education Level	diploma	91	3.6758	.6826	.742	84	3.9960	1.0186	.363
	bachelor's degree	26	3.7788	.7257		25	4.3067	.7386	
	graduate degree	4	3.5625	.6884		3	4.1111	.1925	
	Total	121	3.6942	.6881		112	4.0685	.9546	
Employment Status	small	60	3.7250	.6373	.060	57	4.1170	1.0399	.617
	full time	81	3.7901	.6104		76	4.0658	.8572	
	part time	33	3.5455	.7433		30	4.1444	1.1131	
	casual	7	3.2857	1.0550		6	3.7222	1.3567	
	Total	121	3.6942	.6881		112	4.0685	.9546	
Time in Current Position	less than 3 months	5	3.3000	1.0518	.216	5	3.8000	1.4063	.327
	3 months to 1 year	13	3.4423	.6858		11	4.3333	.4944	
	1 to 5 years	42	3.6429	.7452		39	3.9402	1.0454	
	6 to 10 years	20	3.7500	.5849		20	4.4000	.5472	
	greater than 10 years	41	3.8476	.6069		37	3.9820	1.0451	
	Total	121	3.6942	.6881		112	4.0685	.9546	
Time in Current Organization	less than 1 year	5	3.3500	1.0983	.435	5	3.8000	1.4063	.094
	1 to 5 years	18	3.5417	.7488		17	3.6667	1.1844	
	6 to 10 years	23	3.6848	.4839		20	4.4333	.6127	
	greater than 10 years	75	3.7567	.6975		70	4.0810	.9158	
	Total	121	3.6942	.6881		112	4.0685	.9546	
Time in Nursing	less than 1 year	2	3.7500	0.707	.218	2	4.1667	.2357	.212
	1 to 5 years	6	3.2917	0.9		5	3.0667	1.7544	
	6 to 10 years	20	3.5750	0.708		18	4.1667	.8421	
	11 to 20 years	32	3.5859	0.588		28	4.0952	.7744	
	greater than 20 years	61	3.8279	.6990		59	4.1073	.9756	
	Total	121	3.6942	0.688		112	4.0685	.9546	

Table 18 Demographic Groupings of Management's views and Opportunities for Advancement

		Management's view of nurses (interview)				Opportunities for Advancement (interview)			
Demographic	Grouping	N	Mean	SD	Sig 2 tail	N	Mean	SD	Sig 2 tail
Gender	female	109	2.3976	1.0919	.792	109	2.8685	1.1742	.680
	male	6	2.2778	.8542		6	2.6667	.9189	
Age	21 to 30 years	12	2.5000	1.3295	.968	11	2.7879	1.4320	**.047***
	31 to 40 years	29	2.3563	1.0425		29	3.4138	1.3412	
	41 to 50 years	50	2.3333	.9782		50	2.6600	1.0701	
	51 to 60 years	20	2.5167	1.2541		21	2.5714	.7464	
	greater than 61 years	4	2.4167	1.3159		4	3.0000	.9027	
	Total	115	2.3913	1.0781		115	2.8580	1.1598	
Marital Status	married	87	2.3487	1.0925	.426	86	2.7868	1.1804	.405
	divorced	13	2.9231	1.0288		13	2.8974	1.0127	
	separated	5	2.2000	1.0954		5	3.8000	.9603	
	single	8	2.1667	1.0235		9	3.0370	1.2741	
	widowed	2	2.1667	.7071		2	2.5000	.7071	
	Total	115	2.3913	1.0781		115	2.8580	1.1598	
Have Children?	Yes	73	2.3653	1.1099	.735	71	2.8732	1.2168	.859
	no	42	2.4365	1.0320		44	2.8333	1.0747	
Education Level	diploma	87	**2.2529¬**	.9843	**.036***	86	2.7093	1.1351	.055
	bachelor's degree	25	**2.8800¬**	1.2167		25	3.2667	1.1467	
	graduate degree	3	2.3333	1.7321		4	3.5000	1.2323	
	Total	115	2.3913	1.0781		115	2.8580	1.1598	
	small	57	2.6784	1.1144		57	2.7602	1.2324	
Employment Status	full time	78	2.5171	1.0766	.137	78	2.8462	1.0454	.727
	part time	30	2.0556	1.0544		30	2.9556	1.3999	
	casual	7	2.4286	1.0313		7	2.5714	1.3840	
	Total	115	2.3913	1.0781		115	2.8580	1.1598	
Time in Current Position	less than 3 months	5	2.4667	1.1926	.952	5	2.5333	1.5019	.582
	3 months to 1 year	12	2.2222	1.1576		13	2.8718	1.1348	
	1 to 5 years	42	2.4683	1.0971		40	3.0917	1.2987	
	6 to 10 years	19	2.4386	1.0890		20	2.6667	.9490	
	greater than 10 years	37	2.3243	1.0613		37	2.7477	1.0813	
	Total	115	2.3913	1.0781		115	2.8580	1.1598	
Time in Current Organization	less than 1 year	4	2.5833	1.1667	.917	5	1.9333	1.1879	.271
	1 to 5 years	19	2.4386	1.1442		17	2.7843	1.2187	
	6 to 10 years	21	2.4921	1.2185		21	3.0635	1.1908	
	greater than 10 years	71	2.3380	1.0320		72	2.8796	1.1277	
	Total	115	2.3913	1.0781		115	2.8580	1.1598	
Time in Nursing	less than 1 year	1	4.3333	.	.405	2	2.8333	1.6499	.299
	1 to 5 years	7	2.5714	1.3840		5	2.3333	1.6833	
	6 to 10 years	19	2.3860	1.3253		19	3.0175	1.3765	
	11 to 20 years	28	2.4762	.8722		30	3.1778	1.2495	
	greater than 20 years	60	2.3000	1.0428		59	2.6893	.9587	
	Total	115	2.3913	1.0781		115	2.8580	1.1598	

¬ Scheffe's post-hoc test shows a significant difference (p=.036) between the means "diploma" and "bachelor's degree" for the "management's views" variable

Table 19 Demographic Groupings of Decision-making Authority and Safety Variables

		Sufficient Decision-Making Authority (interview)				Safety on Job (survey)			
Demographic	Grouping	N	Mean	SD	Sig 2 tail	N	Mean	SD	Sig 2 tail
Gender	female	109	3.7951	1.0905	.837	114	3.0307	.9895	.501
	male	6	3.8889	.8861		6	2.7500	1.0840	
Age	21 to 30 years	11	3.7576	1.1934	.865	13	2.9231	.8623	.354
	31 to 40 years	29	3.6322	1.1421		31	2.7419	1.0398	
	41 to 50 years	50	3.8267	1.0416		51	3.0980	.9696	
	51 to 60 years	21	3.9524	1.1019		21	3.1905	1.0183	
	greater than 61 years	4	4.0000	.9428		4	3.5000	1.0801	
	Total	115	3.8000	1.0777		120	3.0167	.9914	
Marital Status	married	86	3.7597	1.1383	.920	90	2.9889	1.0652	.897
	divorced	13	3.7949	.9769		14	3.1071	.7641	
	separated	5	4.1333	.2981		5	3.2000	.7583	
	single	9	3.9259	1.0773		9	3.1667	.7500	
	widowed	2	4.1667	.2357		2	2.5000	.7071	
	Total	115	3.8000	1.0777		120	3.0167	.9914	
Have Children?	Yes	71	3.6948	1.2055	.185	75	2.8667	1.0441	**.032****
	no	44	3.9697	.8159		45	3.2667	.8501	
Education Level	diploma	86	3.7481	1.1306	.443	90	2.9222	.9884	.153
	bachelor's degree	25	3.8800	.9422		26	3.2500	.9513	
	graduate degree	4	4.4167	.4194		4	3.6250	1.1087	
	Total	115	3.8000	1.0777		120	3.0167	.9914	
	small	57	3.9649	1.0402		60	3.2500	.9589	
Employment Status	full time	78	3.7650	1.0665	.832	80	3.1125	.9743	.312
	part time	30	3.8444	1.2184		33	2.8485	1.0494	
	casual	7	4.0000	.4714		7	2.7143	.8591	
	Total	115	3.8000	1.0777		120	3.0167	.9914	
Time in Current Position	less than 3 months	5	3.4667	1.2156	.669	5	2.7000	.7583	.374
	3 months to 1 year	13	3.6410	1.2207		13	2.5385	.9005	
	1 to 5 years	40	3.6833	1.1372		41	3.0488	1.0356	
	6 to 10 years	20	3.8833	1.2625		20	3.1250	1.0371	
	greater than 10 years	37	3.9820	.8350		41	3.1220	.9668	
	Total	115	3.8000	1.0777		120	3.0167	.9914	
Time in Current Organization	less than 1 year	5	4.3333	.2357	.134	5	2.9000	.8944	.846
	1 to 5 years	17	3.3529	1.0637		18	3.0000	.9075	
	6 to 10 years	21	4.0794	.9184		23	2.8696	.9320	
	greater than 10 years	72	3.7870	1.1305		74	3.0743	1.0458	
	Total	115	3.8000	1.0777		120	3.0167	.9914	
Time in Nursing	less than 1 year	2	4.3333	.0000	.084	2	3.0000	1.4142	.479
	1 to 5 years	5	3.4000	1.4795		6	2.6667	.9832	
	6 to 10 years	19	3.7544	.9990		20	2.9500	.7931	
	11 to 20 years	30	3.4000	1.2236		31	2.8226	1.0843	
	greater than 20 years	59	4.0339	.9543		61	3.1721	.9953	
	Total	115	3.8000	1.0777		120	3.0167	.9914	

Table 20 Demographic Groupings of Feedback Variable

		Feedback sufficient and beneficial (interview)			
Demographic	Grouping	N	Mean	SD	Sig 2 tail
Gender	female	109	2.7125	1.0467	.982
	male	6	2.7222	.5741	
Age	21 to 30 years	11	2.7879	1.1951	**.003****
	31 to 40 years	29	**2.1379‡**	.7742	
	41 to 50 years	50	**2.9667‡**	1.0196	
	51 to 60 years	21	2.6984	.9304	
	greater than 61 years	4	3.5833	1.2583	
	Total	115	2.7130	1.0259	
Marital Status	married	86	2.7209	1.0589	.802
	divorced	13	2.8205	1.1435	
	separated	5	2.4000	.4346	
	single	9	2.5185	.7474	
	widowed	2	3.3333	1.4142	
	Total	115	2.7130	1.0259	
Have Children?	yes	71	2.7089	1.0763	.957
	no	44	2.7197	.9508	
Education Level	diploma	86	**2.5969§**	1.0073	**.034***
	bachelor's degree	25	**3.1733§**	.9959	
	graduate degree	4	2.3333	.9813	
	Total	115	2.7130	1.0259	
	small	57	2.9006	1.0078	
Employment Status	full time	78	2.8162	1.0509	.243
	part time	30	2.4444	.9442	
	casual	7	2.7143	1.0079	
	Total	115	2.7130	1.0259	
Time in Current Position	less than 3 months	5	2.3333	.9718	.888
	3 months to 1 year	13	2.6667	1.2693	
	1 to 5 years	40	2.8000	1.0750	
	6 to 10 years	20	2.7667	.9119	
	greater than 10 years	37	2.6577	.9828	
	Total	115	2.7130	1.0259	
Time in Current Organization	less than 1 year	5	2.6000	1.3208	.835
	1 to 5 years	17	2.9216	.9897	
	6 to 10 years	21	2.6508	.9915	
	greater than 10 years	72	2.6898	1.0396	
	Total	115	2.7130	1.0259	
Time in Nursing	less than 1 year	2	1.8333	1.1785	.087
	1 to 5 years	5	2.4667	.9603	
	6 to 10 years	19	2.8772	1.1874	
	11 to 20 years	30	2.3444	.8598	
	greater than 20 years	59	2.8983	1.0138	
	Total	115	2.7130	1.0259	

‡ Scheffe's post-hoc test shows a significant difference (p=.013) between the means "31-40 years" and "41-50" for the "feedback" variable

§ Scheffe's post-hoc test shows a significant difference (p=.045) between the means "diploma" and "bachelor's degree" for the "feedback" variable.

5.9 Types of Trust

Table 21 shows the results of a paired t-test for the trust means for management.

Table 21 Paired T-tests of Trust-Interview vs trust-Survey for Management

Variable	Mean	N	SD	Sig. (2-tailed)
trust management-interview	2.33	114	1.04	.000**
trust management-survey	1.58	114	0.62	

As mentioned in the methods section, this study deals with two different types of trust. The type of trust measured by the survey is a willingness to be vulnerable to the actions of others while the type of trust measured by the interview was interpreted in a number of different ways, by the participants, which were discussed in the methods section. The paired t-test shows a significant difference ($p<.001$) between the mean amount of trust indicated by the survey and the mean amount of trust indicated in the structured interview.

6.0 DISCUSSION

6.1 Trust and Job Satisfaction

In examining Table 2, the mean of 3.69 (sd=.68) indicates that the majority of the nurses surveyed are moderately to very satisfied with their jobs, however further examination of the items within the job satisfaction sub-scale shows that the highest levels of job satisfaction are shown when nurses are asked about their satisfaction with the kind of work they do on their job rather than more general satisfaction questions. This result is mirrored in the structured interview; several nurses commented that they really liked their work and enjoyed dealing with the patients, but found other parts of the job such as "office politics" to be extremely frustrating.

Trust variables for this study were near the bottom end of the scale, indicating that the majority of nurses who participated in this study did not trust management. In the trust question from the survey that dealt with a willingness to be vulnerable to the actions of management, 98% of the participants were unwilling to let themselves be vulnerable to management's actions. In the trust question from the structured interview, interpreted individually by participants, more than 50% of the participants did not trust management.

The correlations between job satisfaction and the trust variables were found to be significant ($p \leq .01$). The correlation for trust (interview) and job satisfaction ($r=.378$) was slightly higher than the correlation for trust (survey) and job satisfaction ($r=.259$). Other studies on the trust-job satisfaction relationship show varying levels of correlation. Armstrong-Stassen, Cameron, Mantler,Horsburgh (2001) found, in their paper

examining the effects of hospital amalgamations, that trust was strongly related to job satisfaction (r=.47, p=.001) while Moss and Rowles (1997) show a difference in job satisfaction levels, depending of the characteristics of management styles. Shockley-Zalabak, Ellis, Winograd (2000) also looked at trust as a whole (but from a business viewpoint) and found that trust explains 60.8% of the variance in job satisfaction. Driscoll (1978) (also business oriented) found a correlation of .52 (p=.001) between organizational trust and overall satisfaction. It appears that, overall, correlation numbers from the business literature are higher than those from the nursing literature.

An interesting picture begins to form when we examine the correlations in the form of scatter plots. The scatter plots of the correlation between trust (survey) and job satisfaction and between trust (interview) and job satisfaction show relatively typical positive correlation configurations in their top quadrants as well as the lower left quadrant. Where the interest in these scatter plots lie is in the lower, right quadrant. Both scatter plots indicate that there are a number of nurses who have relatively high levels of job satisfaction but low trust in management. Much of the literature has shown that trust has a high, positive correlation with satisfaction yet the results of this study show a group of nurses with low trust but high job satisfaction. A partial explanation may be found when the sources of job satisfaction are considered. Job satisfaction can come from a number of areas: autonomy, feedback, safety, advancement opportunities, etc. Bedside nurses tend to have a great deal of autonomy in dealing with their patients and helping patients get well, achieve stability in their health or even die a good death. These are all areas where nurses derive a lot of

their job satisfaction without any involvement from management at all. If we contrast this with other working environments (eg a bank or a corporate office), much of the job satisfaction in those environments would likely be derived from interactions with the employee's management and supervisor (in the form of feedback, promotions, recognition, etc.) (McShane, 2001).

In addition to the single satisfaction variable, this study also examined components of job satisfaction that were identified by the literature. Of these components, all but opportunities for advancement showed a significant correlation with satisfaction, indicating that they do, indeed, have a relation to satisfaction. The components of satisfaction, when correlated with trust, did not all have significant relationships. Of the six components detailed in the theoretical model and literature review (autonomy, decision making authority, safety, management's views, opportunities for advancement, and feedback) only feedback, safety and management's views correlated significantly with trust. This may indicate some possible areas that management can focus on when examining their trust relationships with nurses.

6.2 Trust and Intentions to Remain at Hospital and Remain in Nursing

For the purposes of this study, intentions to remain was divided into three different variables, two of which have been examined in this paper. Intentions to remain in the hospital had a mean of 3.29 (sd=.88) while the intentions to remain in nursing variable had a mean of 4.04 (sd=.87). This difference between the two means shows that while nurses are fairly evenly split as to whether or not they wish to remain at the hospital they are currently at, the majority of them wish to remain in nursing.

This result is in keeping with comments from the structured interviews where nurses had complaints and problems at their hospitals but the majority of them, when asked about nursing as a whole, said there wasn't anything else they could imagine themselves doing or that it was always what they wanted to do with their lives. The trust variables used are the same as those already discussed in section 6.1.1 but when correlated with the intentions to remain variables offer some interesting results via scatter plots. The scatter plots for the intentions to remain in hospital vs trust (interview or survey) are not overly revealing. The scatter plots lack any clear arrangement of points and this is reflected in the lack of significant correlation between remaining at the hospital and trust in management (survey) and the small but significant correlation between remaining in the hospital and trust in management (interview). Intentions to remain in nursing vs trust in management (survey) yields a similarly small relationship while the remain in nursing vs trust in management (interview) correlation yields no significant relationship. What is different about the intentions to remain in nursing vs trust in management scatter plots is the arrangement of the points. The scatter plots for the intentions to remain in nursing variable resemble those for job satisfaction, that is while there is an indication of positive correlation on the top two and bottom left quadrants, points in the bottom right quadrant decrease the overall correlation value. Again this study has found nurses who have low trust in management but have high levels of intentions to remain in nursing. Armstrong-Stassen, Cameron, Mantler, Horsburgh (2001) found that trust was strongly related to turnover intentions ($r = -.45$, $p = .001$) yet the numbers seen in this study are not that close to

those seen in the literature. Clues to this apparent dichotomy may come from the nurses themselves, particularly through the structured interview. Nurses in the structured interviews continually indicated how much they enjoyed nursing and caring for patients and their families. The current job market for nursing in Canada allows nurses a great deal of freedom as to where they wish to nurse. Nurses may feel that trust in management is not a significant concern when they consider whether or not they want to continue nursing. Given the breadth of nursing opportunities outside the hospital, nurses who have low trust in management but high intentions to remain in nursing may stay at the hospital for a variety of personal reasons such as camaraderie with other nurses or dedication to patients. In addition, nurses in towns with only one hospital may have few work options if their families choose to stay in a town. These nurses show loyalty to nursing as a profession, but may not have a commitment towards the organization they are employed with.

6.3 Job Satisfaction and Intentions to Remain in Hospital

The results from Pearson correlation shows a correlation between job satisfaction and intentions to remain in hospital (r=.465). The intentions to remain at hospital vs job satisfaction scatter plot (Appendix H) shows a more traditional, positive correlation shape and this is evidenced by its higher correlation coefficient. Of interest in this plot are the points that show reasonably high levels of job satisfaction but low intentions to remain at the hospital. It is in this area that tools like the structured interview become important because they help to tell the story behind the results. Why are satisfied nurses wanting to leave the hospital; possible reasons could include

familial commitments or a separation between their job (caring for people) and the environment they do their job in (the hospital). Consequently, a person could be happy with his or her profession, but unhappy with their environment and wish to do their job elsewhere. This, in fact, is an idea that was reflected in many of our structured interviews. The correlation between intentions to remain in nursing and intentions to remain in the hospital was .473. When the means for these two variables are examined, we find that the intentions to remain in nursing variable (mean=4.04, sd=.87) is significantly different (p=.000) than the intentions to remain at the hospital variable (mean=3.29, sd=.88). This difference demonstrates the same idea that we see in the job satisfaction/intentions to remain in nursing relationship and this is the idea that nurses want to nurse but where they do it is less important to them than getting to do it. The correlations found in this study are lower than those found in other nursing studies dealing with job satisfaction and intentions to remain. Armstrong-Stassen, Cameron, Mantler, Horsburgh (2001: 156) show a correlation of -.59 between job satisfaction and turnover intentions (note that this is intentions to leave, not remain hence the negative correlation). Cox (2001) shows a similar trust-turnover intention with a correlation of -.57. Hogan & Martell (1987) examined the relationship between satisfaction and intent to stay and found the correlation to be .56. The possible reasons for the difference between the correlation numbers here and those found in other studies are numerous and could range from a difference between asking the questions using "intentions to leave" and asking the questions using "intentions to remain" (earlier portions of the study have shown how reverse scored variables can differ

from normally scored variables trying to achieve the same answer). Another possible reason for the difference could be the difference in the sample. The differences may even go beyond the study design and sample and reflect differences in economics of the area in which the study was published as well as the structuring of the health care system in those regions.

In addition to the main satisfaction variable, the components of job satisfaction (autonomy, decision making authority, safety, management's views, opportunities for advancement, and feedback) were also correlated with the intentions to remain in hospital variable. Of these, only safety and feedback had significant correlations. These correlations for the satisfaction components are smaller than the correlation between the overall satisfaction measure and intentions to remain in hospital (r=.245; .282 vs .465 respectively). This indicates that while safety and feedback are important considerations in the satisfaction picture, with respect to retaining nurses, there may be other components of satisfaction that were not identified by this study.

6.4 Job Satisfaction and Intentions to Remain in Nursing

Pearson correlation showed a correlation between job satisfaction and intentions to remain in nursing (r=.389). The scatter plot for the intentions to remain in nursing vs job satisfaction shows points that are clustered around the centre with the majority of the points in the upper right corner, indicating higher levels of both intentions to remain and job satisfaction and the single outlier with low job satisfaction and intentions to remain may actually be skewing the correlation slightly to the positive end of the scale.

In addition to the main satisfaction variable, the components of job satisfaction (autonomy, decision making authority, safety, management's views, opportunities for advancement, and feedback) were also correlated with the intentions to remain in nursing variable. Of these, safety, opportunities for advancement, and feedback correlated significantly. Of these variables, the advancement variable is of particular interest as it does not correlate significantly with the larger satisfaction variable but does have a relationship with the intentions to remain in nursing variable. There was no research, in the nursing literature, that could be found that dealt with the relationship between job satisfaction and remaining in nursing but other areas such as education dealt with the satisfaction/remain in profession relationship. The relationship found in this study was lower than what was seen in the education literature.

6.5 Education Level

The level at which bedside nurses should be educated has long been a topic of discussion. In the last 10 years, the province of British Columbia decided to phase out the diploma nurse program and required that all nurses being trained graduate with a bachelor of science in nursing. This lengthened the nursing program training time from 2.5 years to 4 years. Diploma nurses already working in hospitals were encouraged but not required to get their bachelor's degrees. The question that has not yet been answered is "was this a worthwhile move?" Are the nurses who have achieved additional degrees beyond the diploma level significantly different that those who hold a diploma? This study found that nurses with graduate degrees were more likely to trust management (interview) than nurses with diplomas while nurses with

bachelor's degrees were more likely to believe management viewed them positively than diploma nurses. There are many reasons these differences could exist. These reasons include: nurses who have completed higher levels of education are exposed to more of the management practices that are taught at the bachelor's level and graduate level but only skimmed at the diploma level (this increased exposure means that these nurses may be more likely to have an understanding of where management is coming from and they may have more tools to be able to see the bigger picture of where management is going with its policy changes); nurses with degrees may have better ability to self-advocate and through this, have more self-confidence and self esteem; or perhaps diploma nurses believe they simply are not treated as well, by management, as degree nurses.

Another variable grouped by education that is important is the intentions to remain variable, but unlike trust, it is important for its lack of significant differences among the categories. This finding is contrary to those of Friss (1982), Schaefer, (1989), Diaz (1989) Fisher, Hinson, & Deets (1994), and Shay & Stallings (1993) who all noted a correlation between turnover and education levels. This does not negate the importance of continuing education but it may indicate that nurses want continuing education to keep their skills sharp and to learn new techniques; the acquisition of a degree beyond the diploma level may not matter to them provided they have educational opportunities given to them.

6.6 Ties In The Community/Intentions To Remain at Hospital

When the variable ties in the community is examined, five of the ten demographic groupings show significant differences among their groupings. Marital status, children, time in current position, current organization and nursing all show significant differences among their means. While, at first glance, this may not seem particularly meaningful, the importance becomes clear when the ramifications are considered. The correlation between ties in the community and intentions to remain at the hospital is .455 and individuals with children, individuals who are married, divorced or separated and individuals who have spent more than one year in their current hospital or position show higher levels of ties to the community than their childless, single or "new in town" counterparts. This may indicate that hospitals need to rethink their recruitment and retention strategies. The results of this study indicate that the longer people are in an area, the more ties they have to the community, especially if they are married, separated or divorced and/or have children. Since ties to the community are related to intentions to remain at the hospital this could suggest that instead of focussing solely on bringing nurses to the hospital, hospitals need to focus on recruiting families to their towns. Families who are able to develop ties are likely to have higher retention intentions than those who are unable to form ties in the community. Fisher, Hinson, & Deets (1994) discuss the idea of kinship responsibilities and these responsibilities can often play a large role in a nurse remaining at the hospital. In a resource dependent area like northern BC, people are often transient as they move to follow employment opportunities. In resource industry down times, nurses may

be the sole breadwinners for their families but feel that if the opportunity comes for their spouse to be employed elsewhere that they have to move their families because in the current market there is a belief that nursing jobs are "easy" to acquire. At this point, retention of nurses no longer becomes the sole responsibility of the hospital; it becomes a consideration for the entire town. Hospitals and other industries as well as the cities or towns themselves need to look at developing retention strategies that are able to attract whole families. These strategies could include: adequate course offerings at the high school level, adequate recreational activities, etc.

6.7 Does Type of Trust Matter?

In their work on trust, Rousseau, Sitkin, Burt, and Camerer (1998) found that there were different types of trust that could exist and the type of trust was dependent on the task being performed and the setting. These types of trust include: deterrence based trust, calculus-based trust, relational trust and institution-based trust. Deterrence based trust is the belief that the sanctions for breaching trust are costly and exceed any potential benefits that could be gained from the opportunistic behaviour leading to breach of trust. Calculus-based trust is based on rational choice. The trustor observes the actions of the trustee. If the trustor perceives the trustee as performing beneficial actions and has credible information regarding the intentions or competence of the trustee then the trustor will place their trust in the trustee for that particular area. Relational trust develops through repeated interactions over time between the trustor and the trustee and is a more emotion laden type of trust. Information available to the trustor from within the relationship itself forms the basis for re-

lational trust. Reliability and dependability in previous interactions leads to increased positive expectations about trust. Institution-based trust is the most nebulous of the trust types and is often seen as a bridge to developing relational and calculus-based trust. An institution's organization and practices (eg standard human resource practices or emphasis on teamwork among employees) help to form supports for other types of trust to develop. As discussed in the literature review, the four types of trust are not mutually exclusive; trust has a bandwidth and may exist in different forms for the same people depending on the task and setting. Trust in management, as we have seen, had low means for both trust-survey and trust-interview but types of trust can be factored in here as well. One of the biggest complaints against management that arose in the structured interview was that management was "invisible." Nurses felt that they didn't know what management was doing for them and often didn't feel they had enough information to know if they could trust management. According to Rousseau et al.'s (1998) trust types, it can be hypothesized that nurses at smaller hospitals likely have some relational trust with management which contributes to slightly higher trust means while nurses at larger hospitals have calculus-based trust in management and are not getting the input they need from management to make the choice to trust them. This idea did not necessarily hold true for this study, however. When examining the transcripts of structured interviews it was found that nurses from all hospitals had complaints about the "visibility" of management and, in fact, nurses at smaller hospitals had more concerns about management's visibility than those at larger hospitals. The reason for this can not be known for certain, but given

the climate at the time of these interviews, it can be hypothesized that nurses in the outlying regions of the Northern Health Authority had concerns that having management centralized in one location would be detrimental for hospitals outside of central location as management would not have a clear picture of what was happening in those hospitals, nor would they be making frequent enough visits to achieve a clear picture.

The facets of trust discussed by Sirdeshmukh, Singh, Sabol (2002) and others might be a consideration when looking at the difference between the mean level of trust from the survey and the mean level of from the interview. Facets of trust can also be interpreted as how individuals define the word trust; an individual who interprets trust to mean benevolence will likely answer a question differently than an individual who uses one of the other facets to interpret trust when answering the question (e.g. reliability, competence, fairness, and honesty and openness). Individuals generally pick a facet to define trust that best reflects their own personal value set. This must be a consideration in examining trust. Either researchers must ask questions that more specifically delve into a facet of trust (e.g. questions specifically around the competence or fairness or the supervisor) or there must be an understanding that trust may not be interpreted in the same way by all respondents and thus, this may affect the results.

Understanding the different types of trust and how they may be reflected in the outcomes of specific variables is an important consideration for those conducting studies dealing with trust. There needs to be a decision about what type of trust is of interest to the study and what the best way is to accurately measure that trust through a survey instrument or structured interview.

6.8 Strengths of the Study

6.8.1 Structured Interviews

Dixon et al. (2002), Foster & Godkin (1998), and Pulakos et al. (1996) have all found that structured interviews provide more reliable information than their non-structured counterparts (reliability of .55-.90). Structured interviews also offer a consistency that unstructured interviews may not provide. Unstructured interviews have no formal scoring guides, making the results hard to measure and compare. Structured interviews, however, are formalized (the same questions are asked in the same order to each interviewee) and they allow for measurement and comparison as long as scoring anchors or benchmarks are provided. Dixon et al. (2002) also note that multiple raters have increased reliability over a single rater but only if the multiple raters do their rating separately. If raters rate together, there is a tendency for group think to dominate which can take away from the actual worthiness of the instrument. This study was able to gather the wealth of information that can be obtained from an interview while maintaining the structured set up that allowed for rating and compari-

son of the responses given. In addition, the separate rating, by three independent raters, ensured that each participant was carefully evaluated without "group think" taking away from the validity of both the rating and the instrument.

6.8.2 Sample size and similarity to Urban BC

Another strength of this study was that even though we were unable to do a random sample of our population of interest, our sample's demographics were not significantly different from those published by CIHI regarding the urban BC nursing population. This lack of significant difference between our sample and urban BC nurses indicates that the results can not only be applied to our sample, but they are likely generalizable to the hospital nursing population of British Columbia.

6.8.3 Mixed Method

The mixed method of this study (using both qualitative and quantitative) is one of its strengths. By using quantitative measures, we have the ability to perform statistical analysis on the data while the qualitative measures allow for a more complete picture and add depth to the quantitative findings as well as further confirming the quantitative findings.

6.8.4 Concepts defined by participants (strength of study section)

In the structured interview portion of this study, participants were asked questions about concepts such as autonomy and trust but no definition was provided for these concepts. Allowing the nurses to self-define the meanings for these concepts is a strength of this study because it means that the researchers are not narrowing down the concepts to fit their own definitions and research agendas. This idea be-

comes clear when we consider the idea of trust. As mentioned in this paper, nurses self-defined trust in the way that best illustrated the idea of trust for him or her. Some nurses indicated trust to mean reliability while others indicated that trust mean confidentiality or competence to them. If the concept of trust had been pinpointed to one of these concepts rather than letting nurses self define, the results may not have indicated the true picture of nurses' trust levels.

6.9 Limitations of the Study

6.9.1 Non-random selection

As with any study, this one had certain limitations. The first was that the selection of the participants was not random; instead, the participants "opted in" to the study. There are two problems with "self-selecting" samples: 1) the specific population that had a chance of participation is unknown and thus cannot be expected to describe the population as a whole and, 2) they only include respondents who chose to participate (Zorn, E., 2003). The first problem with self-selecting samples is not that great a concern here. Since one of the requirements for participation was having worked 450 hours in the last six months, all potential participants should have been at the hospital enough to see or hear about the study through the recruitment posters or through colleagues that had seen the posters and/or participated in the study. An area of concern is the two hospitals we had no response from. In those cases, it is not clear whether the information was not disseminated or if it was simply that no one at those institutions chose to participate. The second problem with self-selecting samples, however, may be of concern in this study. While a certain amount of "snow-

balling" (where participants were asked if they knew anyone who had not participated in the study and were asked to encourage people in their workplace to contact the study) took place, the majority of the participants in the study were self-selected. Self-selecting samples are a source of concern in studies because of the possibility of bias towards a certain type of participant (e.g. disgruntled and wanting to complain or happy and wanting to praise). As mentioned in the above, strengths of the study, section the study population was not significantly different in make up from the urban BC nursing population as a whole. This helps to alleviate worries that this self-selected sample might not offer a truly representative sample of northern BC nurses.

6.9.2 Participation gift

The participation gift itself could be considered to be a limitation to this study. There is a belief that gifts beyond a certain amount could coerce participants into participating in a study they would not normally have chosen to participate in. Given the similarity between the study group and the urban BC nursing population, it does not seem that the size of the gift adversely affected the group of individuals who self-selected to be part of the study.

6.9.3 Rating of structured interview

The rating of the structured interview is a possible limitation of the study. The structured interview used in this study was open (the same questions were asked to each participant but no choice of answers was given). The answers were then subject to content analysis and the rating scheme was derived from this. Having the one of the researchers define the ratings from the questions rather than giving the pos-

sible choices for answers when the question was asked means that a source of bias may have been introduced. Instead of having an answer directly from the participant, the researcher had to infer the rating on the question by looking at the overall answer to the question. An attempt to ensure that the correct rating was chosen by having three raters read the participant's response and choose the appropriate rating but the choices of the raters may not reflect the choice the participant would have made, especially where there was disagreement among the raters. Contrary to this idea, however, Culp, K. & Pilat, M (1998) feel that asking the same, open-ended questions to all the participants, especially in areas where likely responses haven't been determined by other research, prevents limiting the respondents to a set of answers that were predetermined by the researchers. In this way, researchers would prevent introducing their own bias through the questions they asked and chose not to ask.

6.9.4 Cross-sectional nature of study

Another limitation of this study was its cross sectional nature. Due to time and budget constraints it was not possible to do multiple repetitions of this study, spread out over a longer period of time. This means that the data collected, while important, can not offer an indication of causality. Those examining the data can make educated guesses as to the reasons for the correlations and relationships between variables but they will only be guesses.

6.9.5 Paring down of survey questions

The paring down of survey questions was also a limitation of this study. Due to efforts to have the survey be answerable within the one hour allotted for it, questions that seemed repetitive or not as relevant to the overall study were removed. Care was taken to try to ensure that the ability of the instrument to measure its variable of interest was not affected. In the case of the questions this paper examined, the job satisfaction instrument was shortened by two questions that dealt with how "most people felt" about their jobs, the trust instrument condensed two questions into one and removed a third question while the intentions to remain instrument removed a question that could not be answered using the methods chosen for the survey and altered the wording of the questions to make them specific to the nursing nature of the study. Though the reliability for these instruments remained high, even with the questions altered, the removal of the questions may have altered the results. These alterations may not be significant or even noticeable, but there is no way of knowing this without administering the survey both with and without the deleted questions.

6.9.6 Nursing vs Business

The majority of the concepts in this thesis are taken from business literature and then applied to nursing. Given potential differences in the scope of employment and hierarchy within these organizations, information about job satisfaction, trust and intentions to remain, as well as the relationships between those concepts, taken from the business literature may not be generalizable to the nursing profession. It is important to note, however that the few nursing documents focussing on the relation-

ships studied in this thesis showed different results. However, some of the concepts explored in this study, while explored by the business literature, have not yet be explored to any depth in the nursing literature. This gap in the nursing literature is a limitation because some of the results from this study can not be compared with other nursing studies. It is possible that nurses may not have conceptualized the variables of interest in the same way employees in a "business" environment. Until studies are done using these concepts to model nursing relationships, it will not be clear how generalizable the business literature is for nursing environments.

6.9.7 Concepts defined by the participants

As mentioned in the above section, allowing participants to self-define concepts asked in the structured interview is a strength of the study but it is also a limitation. Since the nurses self-defined concepts such as autonomy, trust and management's views, the quantitative means for these variable can only indicate the degree of presence or absence of a problem; the means do not tell management how the nurses defined the concepts or what management can do to improve the situation. To make the means for these self-defined concepts more useful to hospitals that are focussing on job satisfaction and retention issues, the content from the qualitative portion of this study needs to be explored in more depth. By exploring the answers the nurses gave to the questions in the structured interviews, management can be made aware of where, exactly, nurses feel that the problem lies in addition to knowing that there is a problem. In-depth analysis of the structured interviews was beyond the scope of this thesis but has been addressed in areas of future research.

6.9.8 Cooperation with nursing council

A final limitation of the study was the decision to abide by one nursing council's request to give half of the money allotted for participant gifts to the council who would then, in turn, give the nurses who participated an hour of paid time off. While this seemed like an excellent and workable idea when presented, not all of the ramifications were clear at the time. Although participants were promised anonymity and it was made clear in both the informed consent form and verbally at the interview that their answers would never be revealed or shared with anyone but the researchers, there were some potential participants who were not comfortable with the hospital knowing that they had participated. One individual in particular contacted the researchers for the express purpose of informing us that she would not be participating due to the involvement of the hospital in the study. If one potential participant felt this way, and felt strongly enough to inform the researchers of her decision not to participate, it seems plausible that there were other potential participants who did not phone to tell us of their unhappiness with the hospital's involvement, but chose not to participate because of it. In addition, many of the participants receiving the hour of paid time off expressed a great deal of skepticism that they would actually be able to take the hour off at any point. In future studies, it might be better to keep the hospital out of the research as much as possible, even if this means that the study does not have the same degree of support and assistance from management.

6.10 Areas of Future Research

One area of future research would be to perform a longitudinal study. In a perfect project, the same survey and interview could be given to participants two years after their initial interview and possibly at a third point. These additional interviews, with the same participants, would allow researchers to track changes in specific answers as well as general trends. What would be of particular interest is that at the time of the initial study, the province of British Columbia was restructuring their health authorities. This created a great deal of unrest and uncertainty for health care workers. A study at two years and five years after the initial study and, coincidentally, two and five years after restructuring would give an opportunity to examine, at least anecdotally, how participants feel about the changes and if any of the fears that were expressed during structured interviews have come to pass.

Another area of future research would be to inflate certain areas of the study and examine them in more depth. As it stands, the survey done here was a broad look at many areas and while this offers ideas as to where hospitals and nurses need to work on their relationships, it doesn't offer the specific details that tell them "what is broken". As we have seen, there are many factors that relate and contribute to trust, job satisfaction and intentions to remain; understanding what, in particular, has been done to decrease those numbers or is being done to improve upon them will help nurses and hospital administration target policies and programs more accurately. Possibilities for studies include: surveys that target fewer areas in more depth to try to find the root of a particular issue or focus groups that take an abstract result (i.e. trust

in management is low) and try to discover the reasons behind that result (i.e. why don't you trust management, why is your trust in management so low). It is only in understanding "why" that hospital administration and nurses will truly be able to create effective solutions that please both parties.

For the purposes of this thesis, the qualitative items were converted to a quantitative scale and utilised. A future area of research is to analyse the qualitative portion of this study in a more thorough manner. To make the qualitative portions of this study of more use to future research, they must be transcribed and content analysis and interpretation must be done. The qualitative answers the structured interview questions will help define the concepts in this study (such as trust, autonomy, etc.) that were left to the participants to self-define. The qualitative portion of the study also helps provide information as to what exactly the problems are that were identified by the quantitative portion of the study. For example, the job satisfaction scale only gives a measure of satisfaction (or dissatisfaction). For this information to be truly useful to hospital and nurses, there needs to be an understanding of what, specifically, makes nurses satisfied or dissatisfied. These are the pieces that a thorough content analysis of the structured interview should be able to provide.

A final area of future research is to examine the type of motivation that drives nurses in their jobs. Motivation has often been linked to job outcome; the idea that people are rewarded (through money, prestige, etc.) to do a job well. There is, however, debate that this long held idea may not be true for all people and situations. There is a belief that some people are intrinsically motivated (ie have a desire to per-

form a task for its own sake) and that rewarding these people may actually be counter-productive (Benabou, R. & Tirole, J., 2003). It has been expressed by nurses in this study that they nurse because they love nursing; they are motivated to perform their job because they enjoy the job itself (something that is reflected in the remain in nursing numbers). If nurses are indeed intrinsically motivated, as it appears they are, this presents new challenges for management. The first step in the research would be to determine if, in fact, nurses are intrinsically motivated. If this is the case, then the next step would possibly be to form focus groups to discover what the hospital management can do to augment motivation. These augmentations could take the form of increased autonomy, increasing staff so nurses have more time to spend with individual patients or simply providing the tools for the nurses to do their job to a level that satisfies them.

6.11 Conclusion

Problems with job satisfaction and retention do not occur overnight; they take time to develop and they will take time to rectify. This study shows that while trust in management is related to job satisfaction and retention, it is not as highly correlated as is seen in other areas such as business and education. This indicates that while it is important for management and nurses to develop a trust relationship, trust is not the only area that should be focused upon in order to improve job satisfaction and retention. In addition, this study brings to light a number of interesting findings that could lead to potential research topics such as the role of ties in the community, the role of education and how type of motivation could affect job satisfaction.

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APPENDIX A - Calculation of Northern BC Population Estimate

Population	City or Area
25122	Williams Lake (CA)
19980	Terrace (CA)
24426	Quesnel (CA)
15302	Prince Rupert (CA)
85035	Prince George (CA)
10285	Kitimat (CA)
16034	Fort St John (CA)
17444	Dawson Creek (CA)
2623	Burns Lake (UA)
2576	Chetwynd (UA)
5414	Smithers(UA)
1456	Vanderhoof (UA)
1729	100 Mile House (UA)
4956	Mackenzie (UA)
21693	Skeena-Queen Charlotte Regional District (CD)
711	McBride (VL)
4188	Fort Nelson (UA)
258974	Northern BC Population (rough estimate)

Legend
CA=census agglomeration
UA=urban areas
CD=census division
VL=village

(Statistics Canada, 2001)

	Total	Urban
Bulkley Nechako Regional District	40,856	16,013
Cariboo Regional District	65,659	28,453
Fraser Fort George Regional District	95,317	71,195
Kitimat Stikine Regional District	40,876	27,028
Peace River Regional District	55,080	31,200
Skeena Queen Charlotte Regional	21,693	14,643
	319,481	188,532

For ease of calculation and a more accurate reflection of possible sample population available to this study, only the areas that had hospitals were used to calculate the population estimate. In addition, this estimate does not include areas not examined by this study such as the Bella Coola region.

APPENDIX B - Recruitment Poster

Nurses Wanted

UNBC Study on Motivation and Trust

Funded by:

The British Columbia Rural and Remote Health Institute

Full time, part time or casual registered general duty nurses, clinical instructors and head nurses who have worked 450 hours or more in the hospital in the past 6 months are needed for a research study entitled:

Motivators and Trust as Explanatory Factors in Northern Hospital Nurses' Intentions to Remain and Obligation Attitudes

Participants will be compensated for their time.

For additional information or to express an interest in participating please contact:

Rick Tallman
Assistant Professor
Business Program, UNBC
Tel: (250) 960-5404
E-mail: nursestudy@unbc.ca

APPENDIX C - Introduction Letter and Informed Consent Form

Faculty of Business - Research Project Information

"Motivators and Trust as Explanatory Factors in Northern Hospital Nurses' Intentions to Remain and Obligation Attitudes"

Thank you for volunteering to assist us in our research project. Heather Smith, a UNBC graduate student, and I are conducting this project. As the title suggests, the purpose of this research project is to gather data that will allow us to examine and understand factors in the workplace that explain hospital nurses work attitudes. I have an interest in the questions involved because I believe nurses are critical to our healthcare system. I also believe that the vast majority of people want to work in a job that provides them with a sense of satisfaction and self-worth. It is management's responsibility to provide the conditions that allow this to occur. This study will help us understand the conditions that exist in northern regional hospitals.

There are two parts to the data collection in this project. One part involves a survey questionnaire and the other a one hour structured interview. The two sets of questions being used are attached to this letter. The first set, entitled "Survey Questionnaires" involves background information and sets of questions on a variety of work attitudes. This set is to be completed by you and returned to us at the time of your interview. This will take about one hour. The second set, entitled "Structured Interview Questions", involves questions that provide information on workplace factors and trust. You do not have to attempt to answer these questions at this time. These are the questions we will be asking in the interview with you. We are providing them so that you know what questions will be asked and you have a chance to think about them.

Your answers to the questions on the survey and in the interview are confidential. Only Ms. Smith and I will have access to them. We will be tape-recording your interview. This will allow us maintain the flow of the interview without having to take notes. When we meet for the interview, we will assign you a case number. This number will be used on the survey questionnaires, on the tape-recording and in the interview. I will keep a separate list of participant names, case numbers and contact information in the event we need to ask a clarifying question during data analysis. Within six months of our data collection, this list will be destroyed. The tape-recording and survey questionnaires will be destroyed after two years. There are no risks to you or other participants. Your participation is completely voluntary and you can choose to not continue at any time.

If you have any questions, you are welcome to call me at or through e-mail at . If you should have any complaints about this study, they should be directed to the Office of Research, UNBC, . Results of this study should be available about six months after collection of the data. If you want a copy of the study results, you can request them via telephone or e-mail.

It is important that you answer each question to the best of your ability even if you think the answer to the question is obvious or you are not sure you understand the question. Even one incomplete answer means that we cannot use some portion of your data. There are no right or wrong answers. Different answers only indicate that people are different and have different beliefs. You will be compensated for your time through a $25 gift certificate and one hour of paid time off from your job. Please keep this letter for future reference.

Rick Tallman
Assistant Professor
Faculty of Business

Informed Consent Form

Do you understand that you have been asked to be in a research study?	Yes	No
Have you received and read a copy of the research project information sheet?	Yes	No
Do you understand that the research interview will be recorded?	Yes	No
Do you understand the benefits and risks involved in participating in this study?	Yes	No
Have you had an opportunity to ask questions and discuss this study?	Yes	No
Do you understand that you are free to refuse to participate or to withdraw from the study at any time? You do not have to give a reason. If you should choose to withdraw, any data provided will not be used.	Yes	No
Do you understand the issue of confidentiality and who will have access to the information you provide?	Yes	No

As a way to compensate you for any inconvenience related to your participation, you will be given an honorarium having a value of approximately $50. It is important to know that it is unethical to provide undue compensation or inducements to research participants and, if you agree to be a participant in this study, this form of compensation to you must not be coercive. If you would not otherwise choose to participate if the compensation was not offered, then you should decline.

I agree to take part in this study.

_____ _____

Signature of Research Participant Date

_____

Printed Name

I believe that the person signing this form understands what is involved in the study and voluntarily agrees to participate.

_____ _____

Signature of the Investigator Date

APPENDIX D - Survey

Faculty of Management
The University of Northern British Columbia

Demographics and Work Experiences

Please tell us something about yourself. This will provide us with information on the people who have helped complete the questionnaires and any difference that may appear in the responses.

Please mark the following with a check in the appropriate slot.

What is your gender? Female: _____, Male: _____

What is your present age? Under 20 years ____, 21 to 30 years ____, 31 to 40 years ___, 41 to 50 years ____, 51 to 60 years ___, greater than 61 years _____

Do you hold: a nursing diploma ____, a bachelors degree ____, a graduate degree_____

Are you married, _____, divorced _____, separated _____, or single _____

Do you have children living at home? Yes _____, No _____

How long have you been in your current position? Less than 3 mo. _____, 3 mo. to 1 year _____, 1 to 5 years ____, 6 to 10 years _____, over 10 years _____

Nature of your position? Full time _____, part time _____, casual _____

If your position is part time or casual, approximately how many hours have you worked in the past 6 months _____?

How long have you been with this organisation? Less than 1 year _____, 1 to 5 years _____, 6 to 10 years _____, greater than 10 years _____

How long have you been employed in nursing? Less than 1 year _____, 1 to 5 years _____, 6 to 10 years _____, 11 to 20 years ____, greater than 20 years _____

Job and Organization Beliefs

- We are interested in how you personally feel about aspects of 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 by marking how much you agree with each of the statements.
- Circle the number which best describes your feelings.

1. - Strongly Disagree
2. - Disagree
3. - Neither Disagree nor Agree
4. - Agree
5. - Strongly Agree

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
Overall, I am satisfied with my job	1	2	3	4	5
I would prefer a job other than in northern B. C.	1	2	3	4	5
I would be very happy to spend the rest of my career with this organization	1	2	3	4	5
I would be willing to let the nurses I work with have complete control over my future in the hospital and issues that are important to me	1	2	3	4	5
It would be very hard for me to leave my organization right now, even if I wanted to	1	2	3	4	5
I do not feel any obligation to remain with my current employer	1	2	3	4	5
I would prefer a job other than nursing	1	2	3	4	5
When union leaders speak publicly about nursing issues they speak for me	1	2	3	4	5
I have ties to this community	1	2	3	4	5
I really feel as if this organization's problems are my own	1	2	3	4	5
Too much in my life would be disrupted if I decided I wanted to leave my organization now	1	2	3	4	5
The policies of this organization are fair and just	1	2	3	4	5
Even if it were to my advantage, I do not feel right to leave my organization now	1	2	3	4	5

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
I would be willing to let the doctors I work with have complete control over my future in the hospital and issues that are important to me	1	2	3	4	5
Generally speaking I am satisfied with this job	1	2	3	4	5
The hospital is obligated to provide day-care facilities for staff	1	2	3	4	5
If I have my way, I will be working in the hospital 3 years from now	1	2	3	4	5
I would be willing to let my supervisor have complete control over my future in the hospital and issues that are important to me	1	2	3	4	5
I frequently think of quitting this job	1	2	3	4	5
I feel safe in my job	1	2	3	4	5
I would be willing to give the nurses I work with a task or problem that was critical to me, even if I could not monitor their actions	1	2	3	4	5
I intend to remain in northern B. C.	1	2	3	4	5
I do not feel like part of the family at this organization	1	2	3	4	5
Right now, staying with my organization is a matter of necessity as much as desire	1	2	3	4	5
I believe the union helps me in my career	1	2	3	4	5
I would feel guilt if I left my organization now	1	2	3	4	5
I would be willing to let management have complete control over my future in the hospital and issues that are important to me	1	2	3	4	5
I intend to remain in nursing	1	2	3	4	5
I would prefer a job outside of the hospital	1	2	3	4	5
I feel that I have too few options to consider leaving this organization	1	2	3	4	5
I would be willing to give the doctors I work with a task or problem that was critical to me, even if I could not monitor their actions	1	2	3	4	5

	Strongly Disagree	Disagree	Neither	Agree	Strongly Agree
I am generally satisfied with the kind of work I do on this job	1	2	3	4	5
My family ties me to this community	1	2	3	4	5
I do not feel emotionally attached to this organization	1	2	3	4	5
This organization deserves my loyalty	1	2	3	4	5
This is a safe place to work	1	2	3	4	5
If I have my way, I will be nursing 3 years from now	1	2	3	4	5
I would be willing to give my supervisor a task or problem that was critical to me, even if I could not monitor her/his actions	1	2	3	4	5
This organization has a great deal of personal meaning for me	1	2	3	4	5
The hospital should provide child-care for staff 24 hours/day	1	2	3	4	5
One of the few negative consequences of leaving this organization would be the scarcity of available alternatives	1	2	3	4	5
I owe a great deal to my organization	1	2	3	4	5
I intend to remain with the hospital	1	2	3	4	5
I do not feel a strong sense of belonging to my organization	1	2	3	4	5
If I had not already put so much of myself into this organization, I might consider working elsewhere	1	2	3	4	5
I would not leave my organization right now because I have a sense of obligation to the people in it	1	2	3	4	5
I would be willing to give management a task or problem that was critical to me, even if I could not monitor their actions	1	2	3	4	5
If I have my way, I will be working in northern B. C. 3 years from now	1	2	3	4	5
The union is an important part of my well-being	1	2	3	4	5

Employee Obligations

- Employment involves obligations between employees and their employers.
- Consider the list below of potential obligations you might have to your employer
- **To what extent do you believe you are obligated to do these things as an employee.**
- Please circle the number that applies next to the statement.

1 = Not Obligated, you have no obligation to do this at all
2 = Slightly Obligated, you should do this from time to time
3 = Fairly Obligated, you should do this about half the time
4 = Very Obligated, you should do this most of the time
5 = Absolutely Obligated, you must do this, without fail, all of the time

How obligated are you to	Not Oblig.	Slight Oblig.	Fairly Oblig.	Very Oblig.	Absol Oblig.
1. Work extra time.	1	2	3	4	5
2. Contribute beyond your job requirements.	1	2	3	4	5
3. Attend work and be on time.	1	2	3	4	5
4. Be loyal to your employer.	1	2	3	4	5
5. Trust your employer.	1	2	3	4	5
6. Refuse to support competitors.	1	2	3	4	5
7. Be active in your workplace social community.	1	2	3	4	5
8. Show respect to and follow the instructions of your supervisor and managers.	1	2	3	4	5
9. Place the benefits and needs of the organization ahead of your own.	1	2	3	4	5
10. Control my emotions and respect co-workers and customers at all times.	1	2	3	4	5
11. Follow instructions even though they do not make sense to you.	1	2	3	4	5
12. Be open and honest in your workplace.	1	2	3	4	5
13. Do things that make their supervisors job easier.	1	2	3	4	5

How obligated are you to	Not Oblig.	Slight Oblig.	Fairly Oblig.	Very Oblig.	Absol Oblig.
14. Contribute to workplace improvements.	1	2	3	4	5
15. Adapt and share the workplace culture.	1	2	3	4	5
16. Represent the workplace favorably to outsiders.	1	2	3	4	5
17. Know and follow the unwritten rules of the workplace.	1	2	3	4	5
18. Maintain the privacy and security of information in the workplace.	1	2	3	4	5
19. Be sensitive to the effects of "office politics".	1	2	3	4	5
20. Act professionally inside and outside of work.	1	2	3	4	5
21. Do your work to the best of your ability.	1	2	3	4	5
22. Do work that is not part of your job including covering the workload of absent employees.	1	2	3	4	5
23. Use your work time well.	1	2	3	4	5
24. Make due with what you have available	1	2	3	4	5
25. See what needs to be done and do it.	1	2	3	4	5
26. Be flexible in your job.	1	2	3	4	5
27. Do work that you are not qualified to do.	1	2	3	4	5
28. Use management's presentation and reporting style.	1	2	3	4	5
29. Be a team player.	1	2	3	4	5
30. Accept all workplace hazards.	1	2	3	4	5
31. Continually upgrade your skills and knowledge.	1	2	3	4	5
32. Maintain your physical fitness.	1	2	3	4	5
33. "Butter-up" your supervisor and management.	1	2	3	4	5
34. "Go the extra mile" at work	1	2	3	4	5

How obligated are you to	Not Oblig.	Slight Oblig.	Fairly Oblig.	Very Oblig.	Absol Oblig.
35. Use good judgement in making decisions.	1	2	3	4	5
36. Learn the job as you work.	1	2	3	4	5
37. Solve unusual problems.	1	2	3	4	5
38. Communicate effectively.	1	2	3	4	5
39. Supervise and direct the work of others.	1	2	3	4	5
40. Act independently.	1	2	3	4	5
41. Plan and organize the work of yourself and others.	1	2	3	4	5
42. Accept your workplace values as your own.	1	2	3	4	5
43. Provide advance notice if taking a job elsewhere.	1	2	3	4	5
44. Accept a transfer.	1	2	3	4	5
45. Spend a minimum of two years in the organization.	1	2	3	4	5

Employer Obligations

- Employment involves obligations between employees and their employers.
- Consider the list below of potential obligations your employer might have to you
- **To what extent do you believe you employer is obligated to provide these things to you?**
- Please circle the number that applies next to the statement.

  1 = Not Obligated, the employer has no obligation to do this at all
  2 = Slightly Obligated, the employer should do this from time to time
  3 = Fairly Obligated, the employer should do this about half the time
  4 = Very Obligated, the employer should do this most of the time
  5 = Absolutely Obligated, the employer must do this, without fail, all of the time

How obligated is your employer to	Not Oblig.	Slight Oblig.	Fairly Oblig.	Very Oblig.	Absol Oblig.
1. Help people get along at work.	1	2	3	4	5
2. Treat everyone the same.	1	2	3	4	5
3. Help me when my job is stressful.	1	2	3	4	5
4. Provide good benefits.	1	2	3	4	5
5. Make sure your supervisor is on your side with higher management.	1	2	3	4	5
6. Let you be part of the decisions that affect you.	1	2	3	4	5
7. Not ask you to do anything wrong or illegal.	1	2	3	4	5
8. Reward extra work	1	2	3	4	5
9. Reward hard work.	1	2	3	4	5
10. Reward performance based on fair evaluations	1	2	3	4	5
11. Keep employees informed about goals, policies and changes.	1	2	3	4	5
12. Let employees know what is going on in the workplace.	1	2	3	4	5
13. Keep its promises.	1	2	3	4	5

How obligated is your employer to	Not Oblig.	Slight Oblig.	Fairly Oblig.	Very Oblig.	Absol Oblig.
14. Support your job-related actions.	1	2	3	4	5
15. Follow the labour code and workplace policies.	1	2	3	4	5
16. Recognize that your family comes first.	1	2	3	4	5
17. Have reasonable expectations about the job.	1	2	3	4	5
18. Provide enough training.	1	2	3	4	5
19. Provide you with everything you need to do your job.	1	2	3	4	5
20. Respect your right to join a union.	1	2	3	4	5
21. Make sure your supervisor treats you with respect.	1	2	3	4	5
22. Respect your privacy.	1	2	3	4	5
23. Make you feel safe at work.	1	2	3	4	5
24. Allow you to speak your mind.	1	2	3	4	5
25. Allow you the freedom to do things as you see fit.	1	2	3	4	5
26. Tell you when you have gone as high as you can in the organization.	1	2	3	4	5
27. Cover membership costs related to your work.	1	2	3	4	5
28. Place you in a job in which you can be true to your values.	1	2	3	4	5
29. Provide opportunities for promotion.	1	2	3	4	5
30. Provide good pay.	1	2	3	4	5
31. Base my pay on my performance.	1	2	3	4	5
32. Provide job security.	1	2	3	4	5
33. Provide career development.	1	2	3	4	5
34. Support me when I have personal problems.	1	2	3	4	5

How obligated is your employer to	Not Oblig.	Slight Oblig.	Fairly Oblig.	Very Oblig.	Absol Oblig.
35. Provide a sense of meaning and purpose in the job.	1	2	3	4	5
36. Provide opportunities for personal growth.	1	2	3	4	5
37. Provide interesting work.	1	2	3	4	5
38. Provide challenging work.	1	2	3	4	5
39. Provide responsibility in the job.	1	2	3	4	5
40. Provide recognition for good work.	1	2	3	4	5
41. Provide status and prestige in the job.	1	2	3	4	5
42. Provide an organized workplace.	1	2	3	4	5
43. Provide regular feedback and evaluations.	1	2	3	4	5
44. Provide support for work related problems.	1	2	3	4	5
45. Provide regular pay raises	1	2	3	4	5

Important Aspects of Your Ideal Job

The purpose of this questionnaire is to find out what you consider important or unimportant to have in your **ideal job**. Please answer the following statements in terms of **how important or unimportant it is to you in determining an ideal job**. Circle the number next to each statement that best describes how important or unimportant it is to you.

1 = Very Unimportant, not at all essential to an ideal job, you can easily do without it.
2 = Not Important, not essential to an ideal job
3 = Neither Important nor unimportant to an ideal job
4 = Important, it is essential to an ideal job
5 = Very Important, absolutely essential to an ideal job, you cannot do without it.

On my ideal job, how important is it that ....

	Very Unimpt.	Not Impt.	Neither	Impt.	Very Impt.
1.The job has good working conditions.	1	2	3	4	5
2. My pay would compare well with that of other employees.	1	2	3	4	5
3. I could feel secure about the job and my future in the organization.	1	2	3	4	5
4. I could have variety in my work.	1	2	3	4	5
5. I could supervise or direct other people.	1	2	3	4	5
6. I could do work that is well suited to my abilities.	1	2	3	4	5
7. The job would give me importance in the eyes of others.	1	2	3	4	5
8. The company would have good policies towards its employees.	1	2	3	4	5
9. My supervisor and I would understand each other and have good personal relations.	1	2	3	4	5
10. I could be active and busy much of the time.	1	2	3	4	5
11. I could do things that don't go against my beliefs and values.	1	2	3	4	5
12. I could be responsible for planning and making decisions related to my work.	1	2	3	4	5
13. I would be noticed and be recognized when I do a good job.	1	2	3	4	5
14. The job could give me a feeling of accomplishment.	1	2	3	4	5
15. The job would provide an opportunity for advancement.	1	2	3	4	5
16. My supervisor would have a lot of "know-how" and provide help with hard problems	1	2	3	4	5

On my ideal job, how important is it that	Very Unimpt.	Not Impt.	Neither	Impt.	Very Impt.
17. The people I work with would be cooperative and friendly.	1	2	3	4	5
18. I could be of service to or help other people.	1	2	3	4	5
19. I could do new and original things or try my ideas on my own.	1	2	3	4	5
20. I could work independently of other people.	1	2	3	4	5

APPENDIX E - Structured Interview Questionnaire

We are conducting a structured interview to ensure we ask all nurse participants the same questions. This will allow us to code your answers and create a quantified database for statistical analysis. We will also be asking you to expand on your answers from time to time. This will help provide greater meaning and depth to your answers. If during the interview you wish to expand on an answer, please feel free to do so. At the same time, we have a lot of questions to cover and it is important we get through them all within the one-hour allotted. If there are areas which you or the researcher feel could use additional elaboration, we will return to those areas at the end of the interview.

At times, you may feel you should answer a question in a way that might be considered socially or politically correct. It is important that you do not do so. For this study to be meaningful it is important you answer the questions based on how you feel.

First, we would like to know your views of nursing and how you feel others view nurses and nursing.

1. How personally satisfying, enjoyable and challenging do you find nursing?
2. Do you feel our society and the general public recognizes the value of nurses?
3. To what extent do you believe the general public view nurses as professionals?
4. What do you believe are management's view of nurses?
5. What do you believe are doctors' views of nurses?

Next, we would like to know your views of your job.

1. How personally satisfying, enjoyable and challenging do you find your present job?
2. To what extent do you feel a positive sense of anticipation about going to work?
3. Do you feel you are sufficiently recognized and appreciated for what you do in your job?
4. Do you have sufficient decision-making authority to do your job effectively?
5. Do you have sufficient autonomy in your work?
6. Do you feel the work you do makes a meaningful contribution toward restoring a patient to health or is it a relatively small portion of what is done?
7. Is the feedback you get on how you are doing your job sufficient and beneficial to you?
8. Does your job allow you to fully utilize your knowledge and abilities?
9. Do you feel you have grown in knowledge, abilities and/or professionally over the past several years?
10. Are there advancement opportunities either within nursing or in the hospital for you?
11. Do you feel that those with whom you come in contact in your current job treat you as a professional?
12. Are there any childcare or family issues that impact on your job?

Next, we would like to know about your relations with your co-workers.

1. How well are you treated by your co-workers?
2. What do you like and dislike the most about your co-workers?
3. Have there been any particular incidents where your co-workers have made your job easier or harder?

Now, we would like your views of your supervisor and management.

1. What is your opinion of your supervisor?
2. How does your supervisor treat you?
3. Are there things your supervisor does that make your job easier or harder?
4. What is your opinion of management?
5. How does management treat you?
6. What does management do that makes your job easier or harder?

Now, we would like to know your views of doctors

1. What is your opinion of doctors?
2. How do doctors treat you?
3. Are there things that doctors do that make your job easier or harder?

Finally, we would like to know the extent that you trust the people you work with

1. How much do you trust the nurses you work with?
2. How much do you trust the doctors you work with?
3. How much do you trust your supervisor?
4. How much do you trust management?
5. Have there been any particular incidents that have affected your level of trust?

Are there any other issues that you feel are important in understanding what is happening in the hospital or that affect your desire to remain there?

Are there any issues from the questions asked in this interview that you would like to elaborate upon?

Thanks for your help with this research study!!

APPENDIX F - Coding for Structured Interview

1.How personally satisfying, enjoyable and challenging do you find nursing?

1 no on all
2 very little, yes on 1, no on 2
3 somewhat
4 quite a bit, 2 of 3 fairly strong
5 very much, all yes

2. Do you feel our society and the general public recognizes the value of nurses?

1 strong no
2 majority do not
3 some do some don't, don't know
4 majority do
5 strong yes

3. To what extent do you believe the general public view nurses as professionals?

1 strong no
2 majority do not
3 some do some don't, don't know
4 majority do
5 strong yes

4. What do you believe are management's view of nurses?

1 very negative view, no respect, view nurses as a commodity
2 somewhat negative view, little respect, don't understand what we do
3 not sure, neutral
4 somewhat positive, nursing managers have positive view other managers may be more negative
5 very positive

5. What do you believe are doctors' views of nurses?

1 very negative, no respect, nurses are handmaidens
2 somewhat negative, little respect, many think nurses are handmaidens
3 neutral, some have respect some don't
4 somewhat positive, many think nurses are of value
5 very positive, great deal of respect, value nurses

6. How personally satisfying, enjoyable and challenging do you find your present job?

1 no on all
2 very little, yes on 1, no on 2
3 somewhat
4 quite a bit, 2 of 3 fairly strong
5 very much, all yes

7. To what extent do you feel a positive sense of anticipation about going to work?

1 dread going to work, don't want to go to work
2 many times dread going to work
3 neutral, don't dread nor look forward to going to work, sometimes dread sometimes enjoy
4 generally look forward to going to work
5 really like to go to work

8. Do you feel you are sufficiently recognized and appreciated for what you do in your job?

1 no by anyone
2 not much but by a few
3 neutral, some recognize and appreciate me some don't
4 most recognize and appreciate me but some don't
5 yes by all

9. Do you have sufficient decision-making authority to do your job effectively?

1 strong no
2 some but not in most cases
3 neutral, not sure
4 pretty much yes
5 strong yes

10. Do you have sufficient autonomy in your work?

1 strong no
2 some but not in most cases
3 neutral, not sure
4 pretty much yes
5 strong yes

11. Do you feel the work you do makes a meaningful contribution toward restoring a patient to health or is it a relatively small portion of what is done?

1 strong no
2 some but not in most cases
3 neutral, not sure
4 pretty much yes
5 strong yes

12. Is the feedback you get on how you are doing your job sufficient and beneficial to you?

1 strong no, get no feedback formally or informally
2 some but not sufficient, either no formal or no informal
3 neutral, not sure, may not get formal but fairly good informal from most
4 pretty much yes, informal good, some formal
5 strong yes informally and formally

13. Does your job allow you to fully utilize your knowledge and abilities?

1 strong no
2 some but not in most cases
3 neutral, not sure
4 pretty much yes
5 strong yes

14. Do you feel you have grown in knowledge, abilities and/or professionally over the past several years?

1 strong no
2 some but not much
3 neutral, not sure
4 pretty much yes
5 strong yes

15. Are there advancement opportunities either within nursing or in the hospital for you?

1 strong no
2 some but not much
3 neutral, not sure, could be but don't want them
4 pretty much yes
5 strong yes

16. Do you feel that those with whom you come in contact in your current job treat you as a professional?

1 strong no
2 some do but most don't, not much
3 neutral, not sure, some do some don't
4 pretty much yes, most do
5 strong yes, all do

17. Are there any childcare or family issues that impact on your job?

1 yes, a lot
2 quite a bit
3 a fair bit
4 some but not much
5 no, not at all

18. How well are you treated by your co-workers?

1 very poorly by all
2 somewhat poorly
3 neither good nor bad
4 fairly well
5 very well

18a. What do you like and dislike the most about your co-workers?

No scoring, use to help decide on scoring for 18

18b. Have there been any particular incidents where your co-workers have made your job easier or harder?

No scoring

19. What is your opinion of your supervisor?

1 is very poor, not nice, and/or incompetent
2 is somewhat poor, not nice and/or incompetent
3 is okay
4 is good
5 is very good, exceptional

20. How does your supervisor treat you?

1 very poorly
2 somewhat poorly
3 neither good nor bad
4 fairly well
5 very well

20a. Are there things your supervisor does that make your job easier or harder?

No scoring, can be used to help assess 19 or 20

21. What is your opinion of management?

1 is very poor, not nice, and/or incompetent
2 is somewhat poor, not nice and/or incompetent
3 is okay, no opinion, don't know
4 is good
5 is very good, exceptional

22. How does management treat you?

1 very poorly
2 somewhat poorly
3 neither good nor bad, no opinion, don't know
4 fairly well
5 very well

22a. What does management do that makes your job easier or harder?

No scoring, can be used to assess 21 & 22

23. What is your opinion of doctors?

Not asked of many. Use 24 to score. We may not use this.
1 is very poor, not nice, and/or incompetent
2 is somewhat poor, not nice and/or incompetent
3 is okay, no opinion, don't know
4 is good
5 is very good, exceptional

24. How do doctors treat you?

1 very poorly
2 somewhat poorly
3 neither good nor bad, no opinion, don't know
4 fairly well
5 very well

24a. Are there things that doctors' do that make your job easier or harder?

No scoring, can be used to assess 23 and 24

25. How much do you trust the nurses you work with?

1. don't trust them at all
2. trust a couple quite a lot but not most, trust then a bit
3. neither trust them nor don't trust them, some I do some I don't
4. trust most a lot but not all
5. trust them all in all things

26. How much do you trust the doctors you work with?

1. don't trust them at all
2. trust a couple quite a lot but not most, trust them a bit
3. neither trust them nor don't trust them, some I do some I don't
4. trust most a lot but not all, trust them on most things but not completely
5. trust them all in all things

27. How much do you trust your supervisor?

1. don't trust him/her at all
2. trust somewhat on certain things but not a lot on most things
3. neither trust nor don't trust him/her, trust on some things not on others
4. trust on most things but not completely
5. trust him/her on all things

28. How much do you trust management?

1. don't trust them at all
2. trust them a bit but not all that much
3. neither trust them nor don't trust them, some I do some I don't, don't know
4. trust most a lot but not all, trust them on most things but not completely
5. trust them all in all things

APPENDIX G - Inter-rater Reliability for Structured Interview Questions

Structured Interview Variable	% close agreement	% total agreement
Management's Views	81.96	29.51
Sufficient Autonomy	95.08	42.62
Sufficient Decision Making	89.34	50.00
Opportunities for advancement	85.25	36.89
Sufficient Feedback	82.79	23.77
Trust in Management	90.00	60.00

NB total agreement is where all three raters agree, close agreement is where two raters agree and the third differs by 1.

APPENDIX H - Scatter Plots for Variables of Interest

Figure 3 Scatter Plot of Trust-survey vs Satisfaction

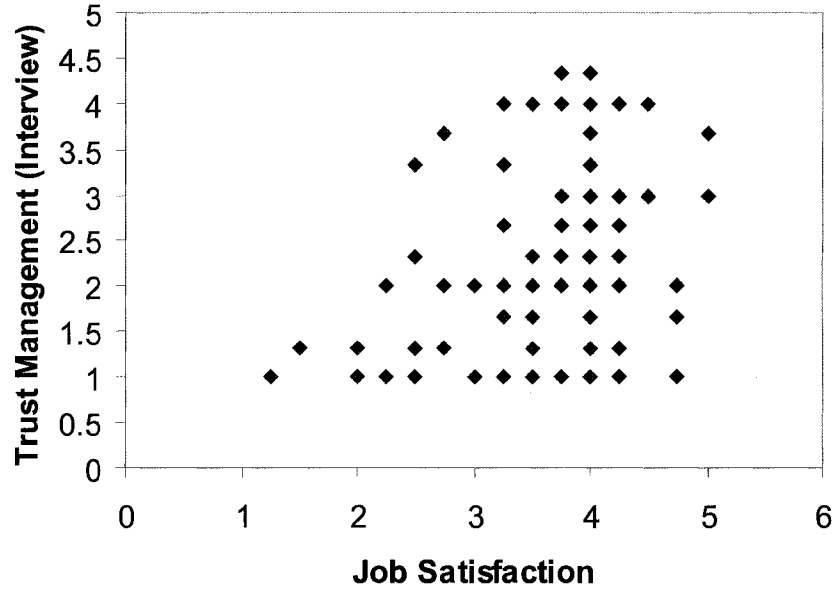

Figure 4 Scatter Plot of Trust-interview vs Satisfaction

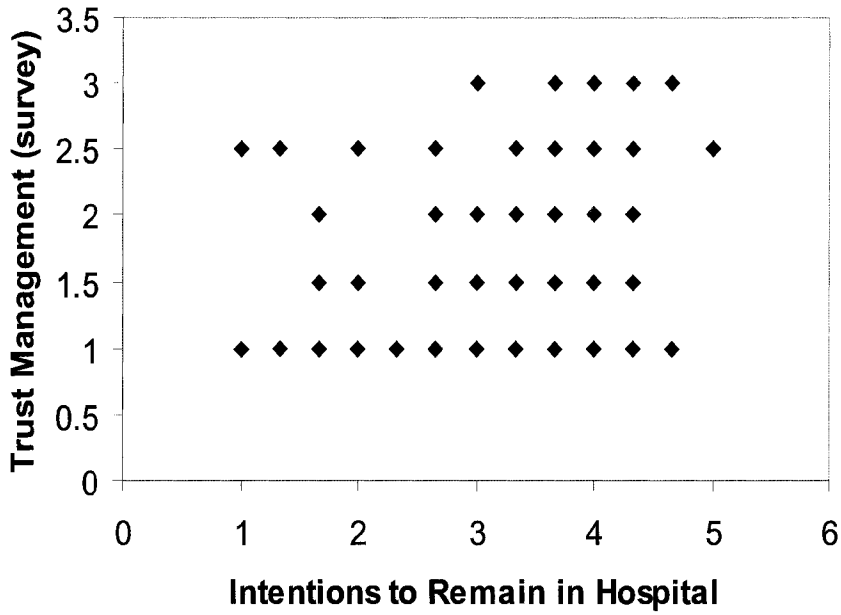

Figure 5 Scatter Plot of Trust-survey vs Intentions to Remain - Hospital

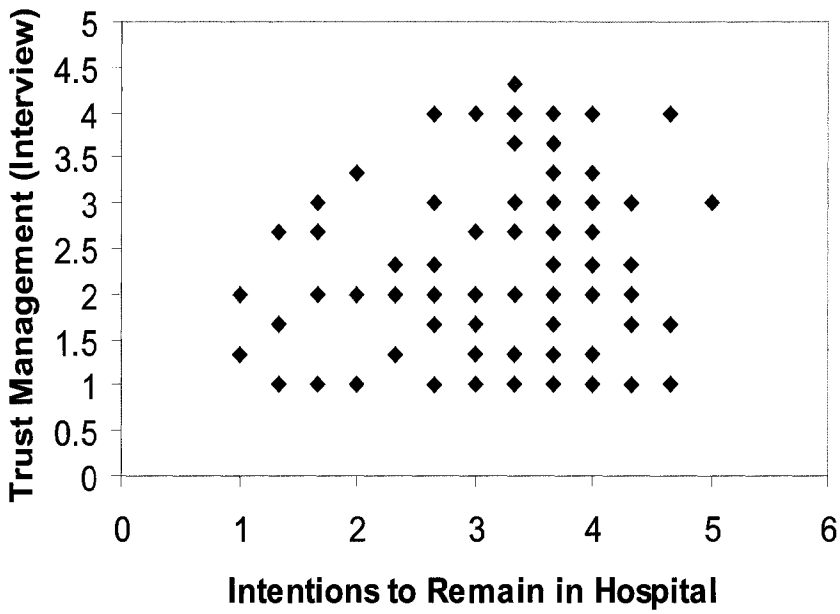

Figure 6 Scatter Plot of Trust-interview vs Intentions to Remain - Hospital

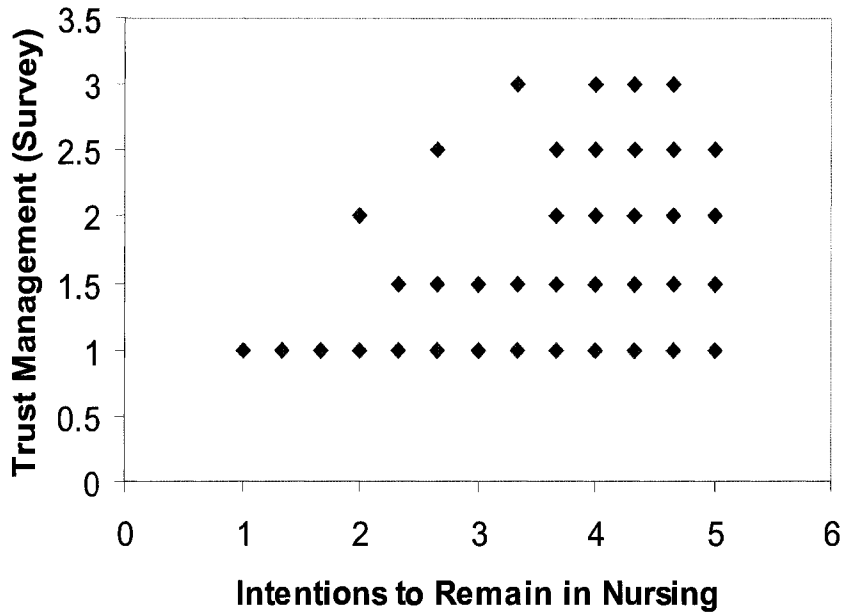

Figure 7 Scatter Plot of Trust-survey vs Intentions to Remain - Nursing

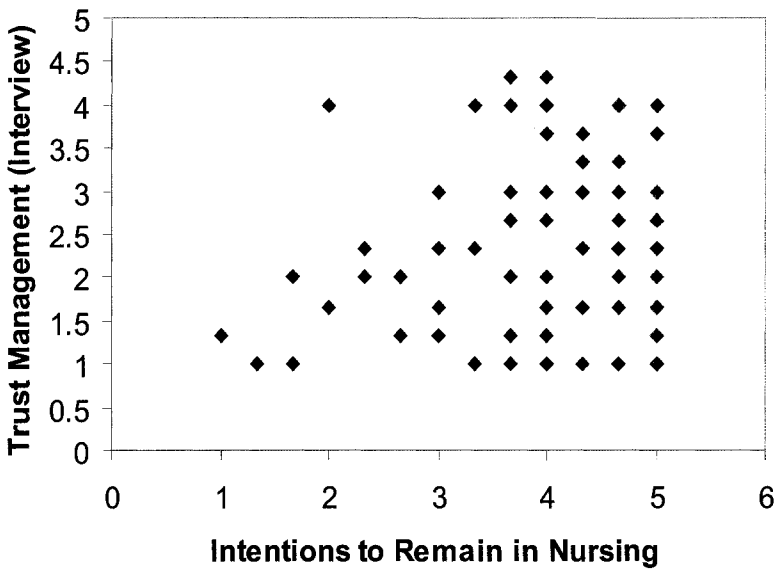

Figure 8 Scatter Plot of Trust-interview vs Intentions to Remain - Nursing

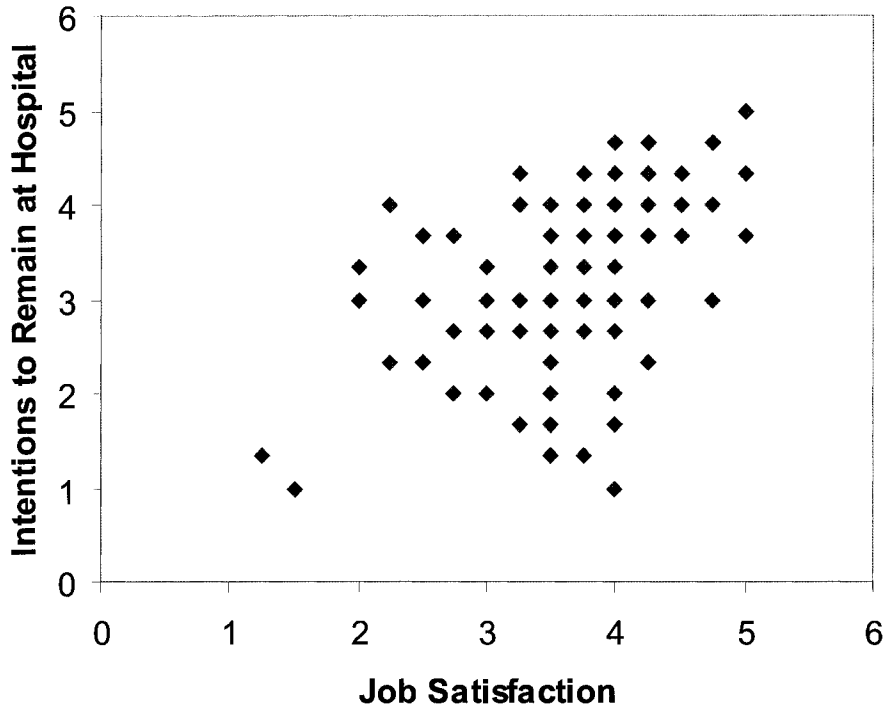

Figure 9 Scatter Plot of Intentions to Remain - Hospital vs Satisfaction

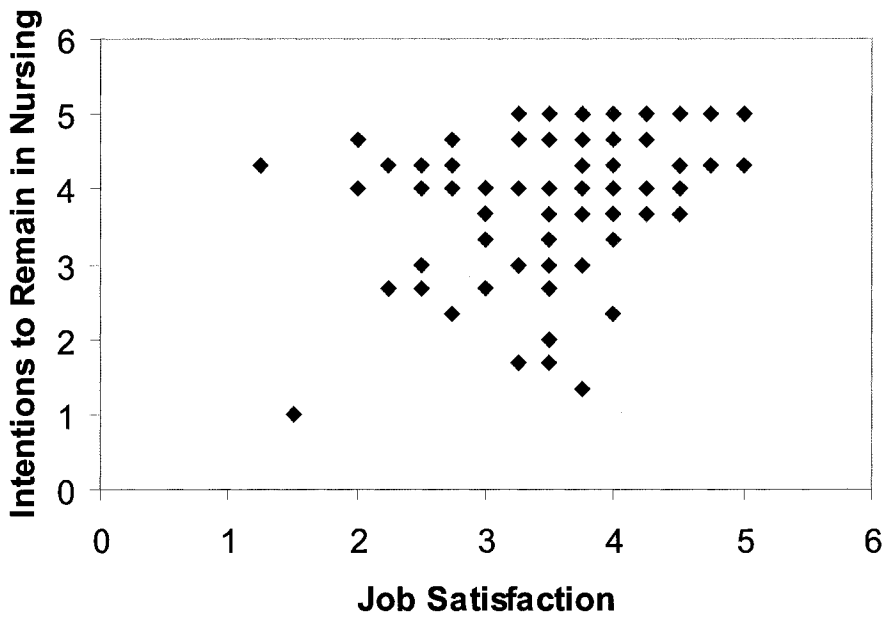

Figure 10 Scatter Plot of Intentions to Remain - Nursing vs Satisfaction