REGISTERED NURSES' JOB SATISFACTION IN A NEW ZEALAND PUBLIC HOSPITAL

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Philippa Jane Beanlands

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ABSTRACT

A multi-faceted questionnaire developed by Ng (1993) was used to explore registered nurses' job satisfaction in a major Auckland, New Zealand, public hospital. Participants (N = 123), were asked to complete the 24-item job satisfaction survey, and a questionnaire determining demographic and employment details. Analysis revealed 3 interpretable factors, Communication, Career Development, and Autonomy, compared with Ng's nation-wide study of 1988, which produced 7 factors. As expected, differences in nurses' job satisfaction appear to have occurred since Ng's study 11 years ago. These may be primarily attributable to the Health Reforms, which took place during the 1990's. Among the demographic and employment variables explored, gender was the only variable which showed any statistically significant effect. When the small number of male respondents (n = 11) were matched to a similar number of females, differences were found in their responses to the Communication factor.

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Thanks must go to participants in this study. I acknowledge that nursing can be a very demanding profession, particularly in the current climate of nursing shortages. I appreciate the time that participants took out of their busy lives to complete the questionnaires.

Finally, thanks to Ross my partner, for his daily question of "Have you finished it yet?". Despite this ritual becoming a bit of a joke, it served to encourage me through his obvious care and love of me.

Dedication

This thesis is dedicated to my parents, Veronica and Howard Beanlands who, all my life, have encouraged me to achieve my aims and ambitions, even when my choices have been a little obscure. Without their unconditional love I could not have achieved all I have.

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INTRODUCTION

Job satisfaction is a complex phenomenon. Within nursing there has been a lot of published opinion prior to the late 1970's, but by comparison with other occupational groups, very little research on job satisfaction (Redfern, 1978, cited in Matrunola, 1996). Since then, an attempt has been made to understand nurses' job satisfaction and the variables that are closely linked with it, through a number of international studies. Many of these studies examine the causal nature of job satisfaction on outcomes such as turnover, absenteeism, commitment, burnout and patient satisfaction. The importance of identifying these causal factors is not just a human resource issue, but a budgetary concern also. Increased turnover and absenteeism (commonly attributed to burnout) place greater financial burdens on hospital administrators as new and relief staff increase costs of orientation and training programmes.

Few studies have been conducted in New Zealand examining this nurses' job satisfaction. One major study conducted in 1988 by Ng, examined nurses' job satisfaction in relation to turnover. No other relevant New Zealand research could be found on this topic. It is hoped that the current study will fill this void and provide a medium for comparison with Ng's (1993) findings.

In order to effect a comparison, the 24-item job satisfaction questionnaire developed by Ng (1993) has been utilised. Demographic characteristics of research participants are analysed to establish whether these affect responses to the questions. An examination of literature has provided a platform for comparison of demographic variables relative to nurses' job satisfaction and is presented in this chapter.

Job satisfaction defined

The most commonly used definition of job satisfaction is the degree to which an employee holds a positive affective attitude toward his or her employment (Blegan & Mueller, 1987; Cavanagh, 1990; Gregson, 1987; Locke, 1976; McCloskey, 1990; Pilkington & Wood, 1986; Price & Mueller, 1986a, 1986b; Song, Daly, Rudy, Douglas, & Dyer, 1997). Jenkins and Maslach (1994) expand on this definition by suggesting that job satisfaction is "an affective response to the fit between the worker's needs and the job's provisions" (p. 102). A further expansion of this definition is that job satisfaction involves not only a person's attitude towards their job, but also toward specific dimensions of their job such as; nature of the job, relationships with co-workers, supervision, conditions, pay, opportunities, and practices of the organisation (Cumbey & Alexander, 1998; Hodson, 1991; Knoop, 1995a; McNeese-Smith, 1997).

Job satisfaction is a multi-dimensional concept, and Herzberg (1966) suggests it lacks adequate definition. There is to date no standardised, or even widely accepted, method of measuring nurses' job satisfaction (Tovey & Adams, 1999). Blegan (1993) highlights the fact that job satisfaction is a very complex phenomenon, and suggests that there is no single factor which stands out as an explanatory variable.

Job satisfaction has no common standard, either between individuals, or within individuals from time to time (Cumbey & Alexander, 1998). Blegan (1993) emphasises that individuals' values and perceptions within the work environment determine their job satisfaction.

Cavanagh (1992a, 1992b) focused on certain factors, which seem to specifically influence nurses' job satisfaction, and outlined three main reasons why job satisfaction is such an important area of study with respect to this occupation:

1. Nursing is a stressful occupation, therefore intrinsic satisfaction can counterbalance extrinsic factors by providing moments of reward, related particularly to patients' well-being.

2. Job satisfaction can influence the quality of patient care: when nurses are satisfied with their work, patients tend to be satisfied with the care they receive.

3. Job satisfaction seems to influence organisational issues, such as turnover and staff morale.

Gruneberg (1979, cited in Cavanagh, 1992b) outlines three principle perspectives about the contrasts that workers experience in relation to job satisfaction: personality differences, job differences, and value differences.

The personality differences perspective of job satisfaction is explained primarily in terms of the personalities of the individual workers (Vroom, 1964). Although personality obviously has an effect on job satisfaction, this perspective ignores the relationship of job satisfaction with other job characteristics, such as organisation size. For some individuals, pay has more of an influence on job satisfaction than does the fulfilment that their work gives them, whereas for other the priorities are reversed.

The job differences perspective highlights the issue that variations in individuals' job satisfaction result from differences in the nature of the work they perform. Cavanagh (1992b) suggests that this perspective "fuelled nursing research attempting to identify essential characteristics which must be present in the workplace, or individual, to make job satisfaction more likely to be present" (p. 705). It is assumed that job characteristics are causally related to job satisfaction. For example, if pay is increased, so too will job satisfaction. Commonly, under this assumption, the nature of the job is analysed against different variables

such as organisational size, promotional opportunities, and economic factors, to list a few. However Cavanagh believes studying just a few variables in this way is unlikely to lead to an in-depth understanding of job satisfaction.

The values differences perspective has an alternative focus. Under the previous two perspectives both the contextual nature and individual differences in the satisfaction experienced by workers performing similar jobs are ignored (Roberts & Glick, 1981). Differences arise not just because individuals interpret job characteristics and organisational contexts differently, but also because the values which they strive to maintain or gain from their work environment, differ (Locke, 1976). Some people see their work as an essential part of their lives, while others work only to fulfil other needs, for example to obtain an income in order to pay the daily bills. People in this latter category may not find work intrinsically satisfying.

Theories of Job Satisfaction

Theories of job satisfaction are closely interwoven with several theories of work motivation. Needs theories, for example, include satisfaction concepts, in that motivation is defined in terms of satisfying basic needs such as security, and recognition. Need fulfilment approaches have greatly influenced the development of job satisfaction theories (Berry & Houston, 1993).

Campbell, Dunnette, Lawler and Weick (1970) classify theories of job satisfaction as either content or process theories. Content theories include Maslow's (1970) Hierarchy of Needs, and Herzberg's (1966) Motivator-Hygiene theory. Both theories emphasise that specific needs must be met, or values attained, before a person can be satisfied at work.

Process theories focus on the way in which an individual's expectations, values, and needs, interact with the worker, the work environment, and the job characteristics or tasks to produce job satisfaction. An example of such a theory is Porter and Lawler's (1968) expectancy theory.

Most job satisfaction theories are difficult to test, and some give conceptually mixed messages. Because specific theories of job satisfaction have not been well tested, it is difficult to know whether they would better predict job satisfaction than motivation theories. Others emphasise intrinsic factors, which are difficult to observe in research (Berry & Houston, 1993).

Two theories of satisfaction will be addressed in more detail. They are Herzberg's Two-Factor Theory, and Expectancy Theory. These theories provide a suitable model under which factors of nurses' job satisfaction will be discussed.

Herzberg's Two-Factor Theory

Herzberg's (1966) theory typifies the human-relations school of management, which emphasises that satisfaction is the key to productivity. This assumption is commonly adopted in modern thinking about job satisfaction.

As previously stated, Herzberg's (1966) two-factor theory is concerned with needs. However, the focus is not on specifying needs, but rather on specifying what outcomes result from satisfaction of needs. The two-factor theory began as a theory of job satisfaction, although its value in understanding motivational behaviour is well recognised.

Two-factor theory was developed mainly from a study conducted by Herzberg, Mausner, and Snyderman (1959). They studied groups of

engineers and accountants, who were asked about their jobs, in particular what things made them feel especially good or bad about their job. From the outcome of the research, Herzberg (1966) suggested that there were two kinds of factors relating to job satisfaction. Specifically he concluded there were two sets of needs to satisfy, and that each is associated with a different class of outcome. These sets of needs and outcomes are:

1. A need for a healthy, safe, and secure work environment, which is associated with an outcome labelled the **hygiene factor**. The job outcomes of the hygiene factor are *extrinsic* to the actual work a person does. Extrinsic outcomes include pay, job security, interpersonal relationships, supervision, organisational policies and procedures, and physical working conditions.

2. A need for personal growth and development is associated with the second outcome - the **motivator factor.** The motivator factor refers to *intrinsic* outcomes of work, which are considered to be an integral part of the job itself. Examples of intrinsic outcomes are achievement, job interest, recognition, responsibility, autonomy, and promotion.

Herzberg (1966) proposed that the two outcome factors affected motivation in different ways. Firstly, he differentiated between job satisfaction and job dissatisfaction, although he did not see these concepts as opposites. He suggested that hygiene factors dispel job dissatisfaction, but do not cause job satisfaction, whereas motivator factors motivate job performance and bring about job satisfaction, however, their absence does not cause dissatisfaction. Thus, one factor motivates toward satisfaction; while the other factor motivates away from dissatisfaction. For example, pay prevents job dissatisfaction, while recognition of performance promotes satisfaction. Grant, Nolan, Maguire, and Melhuish (1994) maintain that for a worker to experience high levels of job satisfaction, organisations need to attend to both the motivation and hygiene factors.

If organisations attend only to the hygiene factors of their workers, the result would probably be a reduction in the sources of dissatisfaction, without necessarily producing an increase in satisfaction. This is because motivator factors have been ignored. Conversely, if motivator factors only are attended to, higher levels of job satisfaction may occur, but higher levels of job dissatisfaction may also occur, due to the lack of hygiene factors.

Hale (1986) notes that literature reviews reveal that nurses attach greater importance to the intrinsic aspects of their work. Patient care is identified as one of the most satisfying intrinsic factors, however extrinsic factors such as pay and supervisory relations also greatly influence job satisfaction. The majority of nursing research examining job satisfaction has focused on hygiene factors (Tovey & Adams, 1999).

Larson, Lee, Brown, & Shorr (1984) report that the research by Herzberg (1966) has been criticised both because of the retrospective methodology, and because the sample group was limited to male accountants and engineers. Goodell and Van Ess Coeling (1994) suggest, however, that Herzberg's model is well suited to nursing, despite this criticism.

Expectancy Theory

Porter and Lawler's (1968) job satisfaction theory was developed as a modification of Vroom's (1964) expectancy theory. Expectancy theory proposes that people use their expectations and preferences to make more or less rational decisions about the amount of effort they assert in their work. Vroom's theory is also known as the valence, instrumentality, and expectancy (VIE) theory, and is a cognitive theory. "He offered the equation for calculating the motivational force on the individual, which could be used to predict the task choice and effort" Berry and Houston, 1993 (p. 89). This equation enables a quantifiable application to

motivation. The equation consists of three elements in a multiplicative relationship:
Motivational Force = Expectancy x Instrumentality x Valence.

For the motivational force to be greater than zero all three elements must have a value greater than zero.

Expectancy is made up of two elements:

1. A subjective estimate of the probability that a particular performance level can be reached.
2. A subjective estimate of the amount of effort required to reach the desired level. That is, individuals are motivated by the relationship between effort and reward.

Instrumentality is our expectation of what will happen if we do try. That is, a belief that performance will result in a desired outcome, however outcomes will vary depending on the success of performance.

Valence is our emotional response to an anticipated outcome. That is, the strength of an individual's desire for a particular outcome.

Modifications of Expectancy Theory

Porter and Lawler (1968) were interested in predicting work effort under different conditions. Their theory resulted from a modification to Vroom's (1964) expectancy theory. According to their model, satisfaction arises jointly from the rewards obtained, and from perceiving that these rewards are fair and equitable. In addition, because it is a source of rewards, performance is seen as an indirect source of satisfaction (Berry & Houston, 1993). In their model, Porter and Lawler outlined two types of rewards or outcomes used within a work environment. The first type, labelled **intrinsic rewards**, pertained to outcomes that individuals felt

to be intrinsically satisfying. Examples of these include feelings of accomplishment, and a sense of having done something worthwhile. Intrinsic rewards are self-administered and immediate. The second type is **extrinsic rewards**. These are administered by others, and are valued because they provide a means of satisfaction. Examples include the employer giving the employee a pay rise, monetary bonuses, or a vacation with all expenses paid.

Porter and Lawler's (1968) proposition was that effort is the outcome of the subjective value of the reward being offered, and the perceived likelihood that performing at a certain level will result in reward. The calculation they used was:
Effort = Reward Value x Effort-Reward Probability

Reward Value is similar to Vroom's (1964) valence, and Effort-Reward probability combines aspects of both instrumentality and expectancy. This relationship implies that the level of performance is contingent on the amount of effort, as well as the degree to which the reward is seen as being contingent on performance. Simplified, this model states, "I will get the reward if I do the job, and I can do the job if I try".

Lawler's (1973) facet theory is a further modification of the expectancy theory, giving a more holistic viewpoint on job satisfaction. The main objective of the facet theory is to predict satisfaction with different facets or aspects of the job. Lawler combined the discrepancy hypothesis with Adams's (1965) equity theory. The discrepancy hypothesis developed out of research which showed that individuals differ in what they want or expect from a job, and use their own perceptions of the value of rewards and outcomes. Adams's equity theory proposes that people compare their own output (e.g pay) with what they put into the job. Known as the **output/input ratio.** Individuals assess the extent to which the exchange is fair in comparison to others' output/input ratio. Lawler

suggested that the level of satisfaction with a particular job facet is assessed by comparing expectations of what should be received from that facet with perceptions of what is actually received. Expectations of what should be received are formulated by perceptions of the amount of input to the job, inputs and outcomes of others with similar job facets, and demands the job makes of the individual (Berry & Houston, 1993).

Satisfaction is experienced when the amount received is the same as the amount expected. Conversely, dissatisfaction arises when the amount received is less than that expected. Lawler (1973) suggests that the amount of dissatisfaction experienced is proportional to the amount of discrepancy. Job dissatisfaction will arise if the individual perceives one of the following:

1. inputs are too high
2. the job is too demanding
3. the outcome level is too low
4. co-workers have better input/outcome balance
5. co-workers have greater outcomes, particularly if they have similar or less demanding jobs.

Lawler (1973) proposed that when individuals perceived outcomes to be too high for the amount of effort, a positive discrepancy arises. This, he suggested, causes guilt and discomfort rather than job dissatisfaction, and can lead to overcompensation, by way of unreasonable effort.

Gurney, Mueller and Price (1997) assert that individuals will give their time, energy, and effort, to the organisation employing them if they perceive they are receiving what they desire in return. Of course, opinions as to what is desirable can differ greatly. What constitutes desirable rewards is a matter of considerable debate among psychologists, economists and sociologists, each of which has a different perspective on the matter.

Nurses' Job Satisfaction

Cumbey and Alexander (1998) suggest that job satisfaction is a complex construct. Individuals bring different values, beliefs and needs into their work situation which can vary across time. The nursing profession has been concerned with job satisfaction since the late 1930's. A study by Nahm (1940, cited in Cumbey & Alexander) found that factors contributing to nurses' job satisfaction/dissatisfaction were: interest in work, relationships with supervisors, family and social relationships, hours of work, income, and opportunities for promotion. It seems that nearly 60 years on, the relevant factors are very similar.

Using Herzberg's (1966) two-factor theory, outcomes of nurses' job satisfaction will be discussed under intrinsic (motivator factors) and extrinsic (hygiene factors). Demographic variables which influence levels of job satisfaction will be highlighted to provide some understanding of individual differences of nurses with respect to work.

Intrinsic outcomes - motivator factors

Recognition, feedback, and achievement

Blegan et al. (1992) found that recognition for outstanding performance was very important for nurses' job satisfaction. They noted in their study that verbal and written feedback was an important aspect of recognition of good performance. They suggested that this form of recognition is low-cost but, however, not free. There is a cost involved in appointing head nurses who are perceptive, and have the skill and confidence to recognise good performance in the first place. Blegan et al. found that informal feedback given by the head nurse was the most favoured form of recognition second only to financial reward.

Jansen, Kerkstra, Abu-Saad and van der Zee (1996) found task clarity, skill variety, and possibilities for growth and feedback at work, positively affected nurses' job satisfaction. A correlation between feedback and job satisfaction echoed the findings of Blegan (1993) that recognition, and communication with supervisor and peers, positively correlated with job satisfaction.

By contrast, Blegan and Mueller (1987) found that job-related communication was negatively related to satisfaction. This was also contrary to Weissman, Alexander, and Chase's (1980) study, in which a positive relationship was found between communication with the head nurse, and job satisfaction. However in the latter study the measure of communication was frequency rather than quality.

In Mantel's (1990) study, staff nurses emphasised the importance of, and their desire for, more positive feedback. This, Mantel suggests, reinforces Maslow's (1954) hierarchy of needs, particularly the need for recognition and achievement. Burton and Burton (1982) identified the fact that perceived self-fulfilment and a sense of accomplishment or achievement are major contributing factors to nurses' job satisfaction.

McNeese-Smith (1997) found in her study that job dissatisfaction was caused by the lack of recognition and support, supervisors not following through with problems, and other nurses not helping, or criticising, when there was a heavy patient load. Nurses attribute many feelings about their job, both positive and negative, to their managers' behaviours (McNeese-Smith; Medley & Larochelle, 1995). The most frequently discussed behaviour was that of receiving recognition or thanks from their manager. Medley and Larochelle propose that in nursing it is unusual for individuals to receive special recognition or to be rewarded tangibly for outstanding performance.

How frequently are nurses recognised for their achievements? "Receiving a pat on the back" for good work have never been common in nursing (Grant et al., 1994). The British Audit Commission (1991, cited in Grant et al.) recorded that nurses receive feedback more readily for poor than for good performance. Gray (1989) agrees that nurses rarely receive feedback for achievements, and that any recognition they do receive tends to be regarded as the result of medical staff achievements.

Autonomy, decision-making, and responsibility

Autonomy is defined as "the freedom to exercise skill and expertise without the control of an external agent" (Wells, 1990, p. 2).

Job dissatisfaction is the main reason why nurses leave their positions (Weissman (1982). The main factors contributing to job dissatisfaction include lack of control (autonomy) and insufficient career opportunities (Barrett & Myrick, 1998). This assessment is supported by De Jonge, van Breukelen, Landeweerd, & Nijhuis (1999) who found that increased job demands and job satisfaction are positively associated with high levels of job autonomy. Conversely, low levels of autonomy were negatively related to job demands and job satisfaction.

One study by Tumulty (1992) found that of 110 nurse managers from 10 hospitals, levels of job satisfaction could be predicted from the following role characteristics:

1. Autonomy
2. Role stress
3. Recognition

Autonomy and recognition were only moderately related to job satisfaction. This is in spite of the fact that autonomy is commonly cited as a cause of job satisfaction for nurses. Blegan and Mueller (1987) disputed this positive relationship between autonomy and nurses' job satisfaction, their study showed that autonomy had little effect on job satisfaction.

There is some evidence that workers in general, who feel they are not part of decision-making in the work environment or that they have little control over their work, feel frustrated and dissatisfied with their jobs (Miller, 1967; Scott, 1966, cited in McGilton & Pringle, 1999). Similarly, Spector (1986) found that those workers who felt they had high levels of control over their work were more satisfied, involved, and committed to their jobs. Counter to their prediction, McGilton and Pringle found that organisational control (policies and procedures) influenced the variance in nurses' job satisfaction more than clinical control (autonomy in nursing practice).

Correlational analysis used in six different studies, confirmed that there was a positive relationship between perceived control over work or work decisions, and job satisfaction. Cavanagh, 1992b; Dywer, Schwartz, & Fox, 1992; Hinshaw, Smeltzer, & Atwood, 1987; Laschinger & Havens, 1996; McCloskey, 1990; Weissman et al., 1980). Conversely, Sleightholm-Cairns and Cragg (1987, cited in McGilton & Pringle, 1999) found that a lack of decision-making responsibility over work-related issues such as staffing and budget, contributed to nurses' job dissatisfaction.

McGilton and Pringle (1999) found that nurses who were not given authority to make clinical decisions (those pertaining to patient care) experienced less job satisfaction.

Role ambiguity

Role ambiguity is defined as a "perceived environmental demand, uncertainty or ambiguity about how to carry out the work role" (Abramis, 1986, cited in Abramis, 1994, p. 1412).

The relationship between role ambiguity and job satisfaction has been explored by a number of investigators. Most found that role ambiguity is associated with lowered levels of job satisfaction.

Abramis (1994) conducted a meta-analysis of 33 studies to examine two primary correlates of work role ambiguity:

1. Job satisfaction (global and intrinsic)
2. Job performance (self- and independently evaluated.)

Results showed consistency with previous research, which indicates that role ambiguity is a valid construct in organisational research, and that it is usually associated with lower job satisfaction. On the other hand, correlation between role ambiguity and job performance was negligible or very weak and tended to be negative rather than positive. Social support was the only conclusive moderator of role ambiguity.

Role ambiguity was also negatively correlated with communication. For example, role ambiguity was found to be associated with lower personal communication, lower adequacy of organisational communication, lower provision for horizontal communication, and lower integration and co-ordination. Supervisory behaviour was also negatively correlated with role ambiguity (Abramis, 1994).

Role conflict, ambiguity and deprivation were found to cause role stress, commonly caused by the incongruency between nurse managers' role

expectations and those of the organisation (Acorn, Ratner, & Crawford 1997).

A measure proposed by Miles, Patrick and King (1996) to reduce role ambiguity was effective job-related communication from a supervisor, and in general this reduced role conflict. As a consequence, a significant increase in job satisfaction resulted.

Miles et al. (1996) proposed that negative relationship communication could have a causal influence on role ambiguity, particularly for newcomers to an organisation, whose job satisfaction could decline as a result.

Job opportunities and promotion

The relationship between perceived job opportunities and job satisfaction is an interesting one. Dunkin, Stratton, Harris, Juhl, and Geller (1994, cited in Coward et al., 1995) found a significant negative correlation between job satisfaction and perceived nursing employment opportunities. Specifically, this correlation showed that the nurses who perceived alternative employment opportunities had lower levels of job satisfaction in their current employment and were more likely to demonstrate quitting behaviour. Nurses who indicated that they intended to stay longer in their current employment had higher job satisfaction scores.

Misener, Haddock, Gleaton, and Abu Ajamieh (1996) found that among the studies they reviewed, the satisfiers which ranked second most highly for nurses, after relationships with co-workers, were: pay, benefits, and career opportunities. It should be emphasised that career opportunities differ from job opportunities. Whereas job opportunities may be a way out of a job that does not provide enough job satisfaction, career

opportunities can be seen as promotional or providing job enrichment. Perceived career opportunities within an employee's organisation, are more likely to act as a catalyst for organisational commitment and job satisfaction, than for quitting.

In a study of Japanese nurses it was found that provision for nurses to be promoted within the unit they were working, or between units, significantly improved their job satisfaction (Yamashita, 1995).

Hardy (1983, cited in Ratcliffe, 1996) highlighted the differences between male and female nurses' career patterns. She suggested that female nurses tend to make lateral moves, with a common swinging pattern between training posts and staff nurse positions. She referred to this as the 'certificate gatherer syndrome' and found that this lateral movement delayed female nurses' upward career movement by an average of 9.4 years. She suggested that men, on the other hand, make a linear career move up the nursing hierarchy. Hunt (1991) showed that both male and female nurses have upward and lateral career patterns, but that males progress upwards more quickly than females.

Extrinsic outcomes - hygiene factors

Pay and rewards

Commonly, work is seen as a means to an end. The end being an ability to pay the daily bills, and for most to be able to afford some luxuries such as holidays, and other preferred leisure activities. Pay, it seems, is closely linked to job satisfaction, however, Dessler (1997) proposes that job satisfaction is not necessarily a direct result of satisfaction with pay, but a need for perceived equity both within and between organisations.

Lum, Kervin, Clark, Reid, and Sirola (1998) support the notion that for individual employees, pay is viewed as an important outcome or reward. Meltz and Marzetti (1988, cited in Lum et al.) propose that salary differentials are used as incentives for nursing job satisfaction and retention for 'difficult to staff' areas. However, Lum et al. identify the fact that a negative relationship between pay and turnover is commonly reported in literature, however little is known about the affective and cognitive variables which influence this relationship. Motowidlo (1983) suggested that pay satisfaction only predicts turnover intentions when employees believe they can get higher pay from other employers.

Mueller and Price (1990) and Blegan (1993) allude to Porter and Lawler's (1968) expectancy theory when they suggest that not only the salary offered to nurses affects their attitudes, but also their perception of whether the pay is sufficient compensation for the work done. Adam's (1965) equity theory has an important implications with respect to pay satisfaction. Pay satisfaction occurs when employees feel that their pay is equitable, by comparison with others doing similar work.

Although pay is commonly included in many scales measuring job satisfaction for both nurses and other groups, it is generally found that pay contributes very little to the job satisfaction of nurses (Agho, 1993; Blegen & Mueller, 1987; Cavanagh, 1990). Frisina, Murray and Aird (1988, cited in Lum et al., 1998) discovered that nurses frequently do not see pay as a high priority in job satisfaction. However Lum et al. believe that this has changed in more recent times. Nurses with greater experience were more satisfied with their pay, and less likely to leave. More experienced nurses seem to receive greater pay than those with less experience. Lum et al. concluded that both personal and organisational factors influenced nurses' decisions to leave their job.

Relationship and communication with supervisor

A study by Butler and Cantrell (1997) showed that in a laboratory task "perceived leaders" behaviour could influence productivity and job satisfaction. Statistically significant effects of leaders' behaviour on both outcomes were demonstrated. Leadership styles, often referred to as leadership behaviour, is discussed widely in literature. Two such styles, transactional and transformational leadership, are discussed by Schulz, Greenley and Brown (1995) who demonstrated that "team organisation structure, transformation and transaction leadership, and a clan culture are antecedents to a favourable work environment that leads to job satisfaction" (p. 340).

Medley and Larochelle (1995) define transformational leadership as "a dynamic leader-followers dyad, concerned with second order change (transformational processes) and associated processes that relate to the higher order needs of individuals" (p. 64JJ). This leadership style is characterised by three major behaviours: charisma, individualised consideration, and intellectual stimulation.

Transactional leadership focuses on transactions or exchanges which include communication, and the interplay of needs, values and desires, between leaders and workers (Inkson & Kolb, 1998).

Most leaders in nursing, as in most occupations, demonstrate a transactional leadership style. Traditionally, nurses were promoted to leadership roles because of the years of experience, as opposed to their ability to lead. Fortunately, this is changing and those in leadership roles are carefully selected for their ability, and are offered further training in leadership and management skills.

Supervision is a form a good management and is identified as having a close association with job satisfaction (Price Waterhouse, 1988). Grant et al. (1994) found in their study of factors influencing nurses' job satisfaction that, although 70% of the nurses surveyed felt that they had easy access to management, only 40% thought that their opinions and ideas were listened to by their supervisors. A similar percentage of nurses also felt that they were not consulted when changes in working conditions were planned.

Irvine and Evans' (1995) meta-analytical study of job satisfaction and turnover among nurses accords with the studies mentioned above, emphasising the importance of the relationship between quality of supervision and nurses' job satisfaction. Irvine and Evans promote employee self-leadership and suggest these "superleadership" strategies, include employee self-goal setting, self-evaluation, self-reward, and self-problem solving. Irvine (1994, cited in Irvine & Evans) suggests that this leadership model is particularly relevant for autonomous forms of work organisation and can be most beneficial to the "lean organization of today" (p.251) – highly appropriate for New Zealand currently, as health budgets are cut back.

Communication with supervisors and with co-workers, and provision of feedback and recognition for job performance are significantly positively related to job satisfaction (Blegan, 1993).

An analysis by Gilloran, McKinley, McClew, McKee and Robertson (1994) of different components of staff nurses' work satisfaction, revealed that approximately one-third of those surveyed (N = 1636) did not feel that their opinions were listened to. More than 50% believed the charge nurse had favourites, and three-fifths of all staff stated that the charge nurse never praised them for good performance.

Moss and Rowles (1997) found that staff nurse job satisfaction improved as the perceived leadership of the head nurse approached a participative style. Moss and Rowles outlined the characteristics of a participative style as superiors having complete confidence in subordinates. Subordinates ideas are sought and discussed, and communication is abundant.

Social relationships and peer communication

Misener et al. (1996) found in most of the studies they reviewed, that interactions, team playing, cooperation, and social factors seem to indicate that an important aspect of nurses' job satisfaction is the development of co-worker relationships. However, in other studies communication with peers was only moderately related to nurses' job satisfaction (Blegan, 1993; Blegan & Mueller, 1987).

Grant et al. (1994) considered that good interpersonal relationships with peers, was the single most important part of nurses' working life. They concluded that nurses in their study saw lateral relationships with immediate peers more positively than the vertical relationships with their supervisors.

Good communication and stability within a ward setting, plus supportive and cohesive team functioning, enhance nurses' job satisfaction and innovation in practice (Adams & Bond, 1995, cited in Tovey & Adams, 1999). Conversely, absence of such support could result in nurses experiencing high levels of stress, which may give rise to depression, hostility, fear of poor performance appraisals, and low job satisfaction (Dewe, 1989; Jain, Lall, McLaughlin, & Johnson, 1996; Packard & Motowidlo, 1987).

Working conditions

In Irvine and Evans' (1995) study, the variables work content and work environment appeared to have a stronger relationship with nurses' job satisfaction than with economic or individual difference variables. They proposed that the reasons for this is that administrators and nurse managers have more control over work content (job design) and work environment variables (through Human Resource management), than they do over external market forces or internal, individual preferences.

Workload is an issue commonly discussed by many nurses, and it often influences their attitudes towards their work. Grant et al. (1994) believe workload has particular relevance to nurses' job satisfaction, and it impinges on quality of patient care. Hutt and Waite (1989, cited in Grant et al.) reported that perception on the part of nurses, that a high workload prevented them from providing their best patient care, was the single most important reason given for leaving, or intending to leave their jobs. In that study 65% of respondents reported that their workload had increased during the previous year, while 56% stated that staffing numbers had fallen. Ten years later, this is a common scenario reported by many nurses working in Auckland public hospitals.

Scandura and Lankau (1997) examined the relationship between flexible work hours, and organisational commitment and job satisfaction. They proposed that the major advantages of flexible work hours include; "lowered stress, increased job enrichment and autonomy, reduced tardiness and absenteeism, and improved job satisfaction and productivity" (p. 378). Their study showed that women's levels of organisational commitment and job satisfaction increased when employers offered flexible work hours.

Blegan and Mueller (1987) found in their longitudinal analysis of job satisfaction that nurses' preference for working day shift had the most stable effect on job satisfaction. Perhaps nurses find working the hours that the majority of the workforce are accustomed to gives them a sense of normality, in that their 24 hour day can fit in with most of their peers, particularly those outside of nursing. To staff a ward, 24 hours a day, seven days per week, is not an easy task, particularly when staff members have commitments outside of work, including family needs. Rostering of nurses to fulfil legal requirements, hospital policy, and case loads, is a complex process (as experienced by the author). More difficult, is the necessity to accommodate special leave requests from nurses for occasions such as attending weddings, graduations and the like. Thus there is limited potential in improve nurses' job satisfaction through more frequent rostering on day shifts. However, there is potential for good management of the rostering requirements.

Blegan and Mueller (1987) also found that routineness in hospital nursing tended to lead to dissatisfaction. Agho (1993) argues that the opposite of routineness is task variety, and suggests that nurses are more likely to experience job satisfaction when they can perform a variety of tasks and be able to demonstrate their repertoire of knowledge, skills and abilities.

Demographic factors

Gender

As increasing numbers of women enter the workforce, studies of gender differences relevant to work-related issues are increasing. Job satisfaction is one issue that is keenly studied in many different work settings with a great interest taken in gender differences in job satisfaction.

In 1987 a Workforce Development Group set up by the New Zealand Health Department, commissioned a national survey of nurses in public hospitals to establish a scale for measuring nurses' job satisfaction. This was used to assess the correlation between job satisfaction/dissatisfaction and the turnover rate of nurses (Ng, 1993). Among the respondents (N = 1249) were 44 male staff nurses, who were not included in the study, in order to maintain the homogeneity of the sample.

Nursing has traditionally been a female-dominated occupation. Recent statistics show a slight increase of males in the profession in New Zealand: in 1986 4.6% of nurses were male, (Workforce Development Group, 1987) and in 1994 this figure had risen to 5.1% (New Zealand Health Information Service, 1996). Schools of Nursing enrolments currently show a rise in the number of males entering nursing education, and this may be related to the introduction of a degree qualification giving nursing a higher educational profile.

Kanter (1977) categorised organisations in four types:

1. Uniform – ratio 100/0, composed of only one sex
2. Skewed – ratio 85/15, characterised by dominants and tokens
3. Tilted – ratio 65/35, characterised by majorities and minorities
4. Balanced – ratio 60/40 or 50/50

Token groups are defined as those groups composed of members of similar backgrounds plus one member from a different background (Inkson & Kolb, 1998). Following Kanter (1977), Burke and McKeen (1996) showed that women working in skewed or tilted settings (predominantly male workers and male senior management) were less job satisfied and reported a less supportive work environment. These women also demonstrated more quitting intentions than did women working in organisations with fewer men in senior management positions.

Burke (1996) found in his study of 1575 male and 809 female workers, in a tilted-ratio professional services firm, that women reported significantly less overall job satisfaction than men. He considered that this outcome reflected the fact that more men than women were employed at higher levels.

Results from Mason's (1995) study showed that managerial women experienced significantly higher satisfaction than managerial men. She suggested that this may be an effect of tokenism, whereby a minority group, in this case women, have increased visibility and tend to be focused on. This state of increased visibility may evoke more unelicited feedback from other workers, contributing to higher levels of satisfaction.

Abraham and Hansson (1996) suggest that more women are now found in management positions, however most retain positions which lack true organisational power, authority and pay. Gender-based stereotypes persist in the workforce despite efforts, such as affirmative action, to assist women to more fully integrate into positions of organisational responsibility. An example of this is in newly formed male-female dyads, where the dyad generally chose the male as leader, even if the female was more dominant than the male (Megargee, 1969).

Results of Abraham and Hansson's (1996) study showed that middle-aged and older women whose developmental coping styles fit the norm of managerial tenacity and achievement, are less likely to report job satisfaction and occupational well-being than similar men.

In the workforce generally, it seems that there is no consistency with the relationship between gender and job satisfaction (D'Arcy, Syrotuik, & Siddique, 1984; Golding, Resnick, & Crosby, 1983; Simpson, 1985). Sevastos, Smith and Cordery (1992) reported that less than 1% of the variance in job satisfaction was related to the gender of the employee.

Guppy and Rick (1996), on the other hand, found that gender was an obvious predictor of job satisfaction, but only after other factors had been considered. Gender seems to effect job satisfaction but only in conjunction with other demographic factors, rather than on its own (Goh, Koh, & Low, 1991). Women are commonly employed to perform very different tasks to men. Therefore, potential gender differences in stress and job satisfaction may be influenced by role differentiation (Guppy & Rick).

Men and women within an organisation rarely share job titles and almost always work in separate work groups within that organisation (Bielby and Baron, 1986). Gender composition of work groups does have a significant effect on supervisors' ratings of subordinates of the opposite sex, supervisor support, co-worker attitudes, and job satisfaction (Konrad, Winter & Gutek, 1992; Kirchmeyer, 1995; Sackett, Dubois and Noe, 1991; Tsui, Egan, & O'Reilly, 1992; Wharton and Baron, 1987, 1991). Fields and Blum (1997) found that job satisfaction of an employee is related to the gender composition of the employee's work group, and does not differ for men or women. Both genders working in a gender balanced work group show higher levels of job satisfaction than those employees working in a homogeneous group, i.e. containing mainly men or mainly women (Cox, 1993; Fields & Blum; Kanter, 1977; Konrad et al.; Sackett et al.; Wharton and Baron, 1991). Those employees, of both genders, working in a group of mostly men, experience the lowest levels of job satisfaction, whereas as those, working in groups containing mostly women, experience middle of the range of job satisfaction levels.

Fields and Blum (1997) suggest that organisational and social norms may account for higher employee job satisfaction in gender balanced work groups. Both men and women working in groups containing predominantly men may feel apprehensive, in that if more women enter the work group or field, there is a greater likelihood of the average salary

decreasing. (Fields & Wolff, 1991; Pfeffer & Davis-Blake, 1987). Also, women working in these groups are more likely to be apprehensive that their male counterparts will get a relatively higher salary and gain more of the supervisory roles. The men in these work groups may fear the competition for better pay and other rewards. In contrast, men and women working in gender balanced groups will probably feel that such risks are behind them.

Wharton and Baron (1991) hypothesised that male co-workers' behaviours and attitudes would strongly influence women's performance and well-being in male dominated work settings. However the findings in this study suggest that gender-mix affects women's well-being far less than men's well-being. Nursing is still a predominantly female profession, therefore studies concerned specifically with job satisfaction on the part of women, are particularly relevant to this study.

Do studies show that, in general, one gender experiences greater job satisfaction than the other? Acorn et al. (1997), using bivariate analysis, found that women were more satisfied with their jobs than men. Ringerman (1990) also found that females reported a higher level of job satisfaction, supporting Acorn et als. findings.

A number of studies show that despite large discrepancies in pay and authority between male and female employees, women report being no less satisfied than men with their jobs (Bokemeier & Lacy, 1986; Crosby, Golding, & Resnick, 1983; Fry & Greenfeld, 1980; Mannheim, 1983; Phelan & Phelan, 1983; Smith & Plant, 1982), nor are women any less strongly committed to their workplace (Mottaz, 1988). Harriman (1985) argues that "men and women do differ in terms of the values they attach to various organizational rewards, their commitment to work, the satisfaction they receive from work and the sources of the satisfaction" (p. 187).

McNeeley (1984) found that women are more intrinsically satisfied with their jobs than men. One suggestion as to why this may be so is that women perceive they have less professional alternatives than men. Women spend a lot more time and energy than men, establishing their organisational membership, and once established, cognitive dissonance can occur if lifestyle choices interfere with this planned career path. Marini, Fan, Finley and Beutal (1996) supports McNeeley's findings. They found that females tend to place higher value than males on intrinsic (valuing work for its inherent importance and interest), altruistic (opportunity to help others and contribute to society) and social (opportunity to work with others and make friends) rewards. Males tend to place higher value on extrinsic (income, prestige and security) rewards, leadership or power, and autonomy which gives them greater flexibility of leisure time and less need for supervision.

Mason (1995) maintains that women are satisfied with jobs in which they can interact with others in a co-operative and supportive manner, even though the job they are doing may not be challenging and may be minimally demanding. Women tend to value pleasant peer relationships within the work environment, even if the job itself is not particularly satisfying (Mason; McNeilly & Goldsmith, 1991).

According to some researchers, men and women have similar subjective responses to work, despite systematic gender differences in work conditions, (Bokemeier & Lacy, 1986; Loscocco, 1990; Mottaz, 1986; Weaver, 1978) and similar self esteem levels (Antonucci & Akiyama, 1987). However, Mutran, Reitzes, Bratton and Fernandez (1997) dispute this view. In their study of middle-aged working individuals, they found that self-esteem was higher among women in highly autonomous jobs, than for men and that non-married women experienced higher self-esteem than other women. D'Arcy et al. (1984) explain that, due to differences in gender socialisation, women have lower work expectations

than men. This is supported by Schneer and Reitman (1995) who found in their study of 676 MBA graduates that women, despite earning less income, working fewer hours, and not reaching as high a management level as men, were just as satisfied with their careers as men at a similar stage. Schneer and Reitman suggest this may be due to women having lower expectations than men at the start of their careers and thus being satisfied at having fulfilled their expectations.

In light of Adams (1965) equity theory, same-gender comparisons of input and rewards should be more relevant, than between-gender comparisons. A reason for the practicality of same-gender comparison is that as gender segregation commonly occurs in the workplace, it seems obvious that same-gender referents would be more readily available (Phelan, 1994). Women's lowered expectations of work achievements and rewards can be explained by the fact that women use other women, rather than men, as a comparison group for assessing their jobs, so gender differences in work conditions would not affect subjective perceptions of responses to work (Hodson, 1989). Zanna, Crosby, and Lowenstein (1987) found that female employees, who compared themselves with their male counterparts, were less satisfied with their jobs than those females who compared themselves with other female workers. Men and women differ less dramatically in job satisfaction and organisational commitment when measured by subjective intrinsic factors such as recognition of work, social support and job stress rather than objective extrinsic factors, such as salaries and career opportunities (Phelan, Bromet, Schwartz, Dew, & Curtis, 1993).

Nursing not only has a skewed composition in general, but certain specialised areas are deemed to be more or less sex-typed (Muldoon & Kremer, 1995) giving rise to an even more skewed composition within those specialty areas. Savage (1985) identified midwifery, paediatrics, and geriatrics, as being largely a feminine domain. This is in contrast to

critical care, psychiatry, teaching, and general medicine and surgery, which are deemed to be less traditionally feminine (Culkin, Tricario, & Cohen, 1987; Savage).

Gaze (1987) considers that there is discrimination between male and female nurses with respect to promotion. She explains that whereas male nurses get promoted to senior nursing roles because they are encouraged to do so, and thereby gain greater confidence in making applications, female nurses with domestic commitments are unlikely to progress up the career ladder, despite their personal desire to do so. Those female nurses who do achieve senior roles have been identified as more likely to be single and childless (Hutt, 1987, cited in Gilloran, (1995).

Outside of nursing, promotions, training, and positions targeted for rapid advancement are, in general, not given to women, for fear that they will quit to marry, have children, (Schwartz, 1989) or follow their husbands when they are redeployed (Markham & Pleck, 1986). Stroh, Brett, and Reilly (1996), however, found that, despite their satisfaction with pay, female managers are more likely to leave their organisation if there is a lack of career or promotional opportunities within the organisation. Quitting for these reasons was more likely to occur than leaving for family reasons.

It has been assumed that more men in nursing will give rise to higher pay and increased status for all nurses (Gaze, 1987). However, Gilloran (1995) argues that this is a misunderstanding of "the process inherent in the gendered segregation of jobs" (p. 653). It is a statistical fact that there are proportionately more men in senior nursing positions than women (Gilloran; Ratcliffe, 1996). Most studies show that men make up approximately 10% of the nursing workforce, yet they represent 35% of senior nurse management roles (Austin, 1977a, 1977b; Carpenter, 1977; Dingwall, 1972; Jolley, 1989; LeRoy, 1985; Nuttall, 1983). New Zealand

statistics for the relative numbers of males and females in nursing, and in senior nursing positions, is shown in Figure 1. Comparison of the overall numbers of male and female nurses with the number of male and female nurse managers, revealed that a disproportionate number of male nurses held management positions. The figures summarised by the Workforce Development Group (1987) set up by the New Zealand Department of Health, showed that whereas the overall percentage of male nurses was 4.6%, 13.1% of nurse managers were male.

Figure 1: Gender differences of New Zealand registered nurses showing disproportionate numbers of male nurses holding management positions in 1986.

Davies and Rosser (1986, cited in Ratcliffe, 1996) showed that the average time for men to reach nursing officer positions in the United Kingdom, was 8.4 years and for women, 17.9 years.

Carpenter (1977) mentioned that geographical mobility seemed to be a factor in career progress. Men, it seems are more mobile than women, therefore providing men with greater promotional potential. Traditionally, men have been the income earners, and women the homemakers - this further promotes men's mobility, as their wives will follow where their husbands work takes them.

Age and experience in nursing

Generally job satisfaction is positively related to age (Lee & Wilbur, 1985). A number of other studies have found that older nurses tended to be more satisfied in their jobs than younger nurses (Blegan, 1993; Coward et al., 1995; Hamilton & Wright, 1986). Nevertheless, at least one recent study found no significant relationship between age and job satisfaction (Jansen et al., 1996).

Guppy and Gutteridge (1991) indicated from their study that job satisfaction was higher among those nurses in more senior roles and positively associated with years of experience in nursing. By contrast, Blegan (1993) in her meta-analysis of nurses' job satisfaction found no relationship between length of service and satisfaction.

Grant et al. (1994) suggested that nurses at the staff nurse level were the most frustrated, and were more likely to leave their jobs because they felt unable to reach their potential as a nurse. These findings support the study by Price Waterhouse (1988) which showed that those recently registered nurses, particularly those younger nurses, were the group most concerned with the lack of opportunities being offered within nursing.

A significant correlation has been found in some studies between age and the number of years worked in one's present position in nursing (Dear, Weissman, Minander, & Chase, 1982; Matrunola, 1996). These studies

indicate that newly graduated and younger staff tend to transfer more frequently to other wards primarily to gain experience, whilst the more mature staff appear content to remain in the ward/unit that they were posted to. The implications of this relationship are that those nurses experiencing the greatest sense of hopelessness are likely to be the younger members of staff. According to Matrunola (1996) these nurses experience more depersonalisation through lack of identity with one ward/unit, and tend to adopt negative attitudes to clients/patients. These findings are currently of considerable relevance to nursing in New Zealand. Many New Zealand hospitals are staffed by newly graduated and younger staff nurses, while their more mature and experienced colleagues are leaving to take up jobs which provide more challenge, more autonomy, and better working conditions and rewards. Many of these posts are overseas. Therefore, locally, there is a critical shortage of experienced staff, and a pool of discontented, less experienced nurses, lacking in competence and confidence (J. Peach, personal communication, August, 12, 1999).

Marital status and family

Epstein (1987) concluded that women who successfully blend careers with a full domestic life generally have one thing in common – good will and support of others in their lives. Judge, Cable, Boudreau and Bretz (1995) suggest that married individuals achieve higher levels of objective career success than unmarried individuals.

Bergmann, Grahn, Hannaford and Wenner (1996) studied 362 nurses (mean age 41.2 years), who completed a survey measuring job satisfaction and satisfaction with their ability to discuss positive aspects of work at home. The study revealed that those nurses who could discuss positive aspects of work with an adult at home (either spouse or adult child) also experienced a greater degree of job satisfaction. Those nurses, who

reported the inability to discuss work achievements at home, tended to look for higher rewards at work to compensate for the lack of reinforcement at home. In this case, it was found that dissatisfaction with the support received at home generated dissatisfaction with advancement (reinforcement) at work. Bergmann et al. suggest that deficiency in satisfaction in either of the domains of work or family life, will be made up for by the whichever domain is less distasteful. Research has shown that social support provided by family members or work colleagues can have a positive influence on workers' general health and well-being. (Beehr & McGrath, 1992; Cohen & Wills, 1985).

Work and family relations can be linked to job and life satisfaction. The level of involvement in, or the importance that the worker places on both family and work, is associated with the relationship between work and family. If workers are highly involved in their job, their job satisfaction is high, however they also experience high levels of work involvement interfering with family life. High levels of family involvement seem to give the worker high levels of emotional sustenance from family members, and this, in turn, has a positive relationship with life satisfaction (Adams, King and King, 1996).

Gaertner (1984) found that nurses who had young children at home, had lower levels of job satisfaction. Their dissatisfaction arose from issues of childcare, work hours and schedules, salary, and their working relationships with doctors. Married employees or those with children experience less burnout than childless employees (Maslach and Jackson, 1985), however, the presence of children in the home is more likely to increase family conflict due to role overload and interference with the job (Higgins, Duxbury and Irving, 1992).

Gender theory suggests that most women are socialised to put family commitments above all else (Baugh, 1990 cited in Scandura & Lankau,

1997). Kanter (1977) suggests that this family-first concept is probably reinforced in the workplace by sex-role stereotyping and discrimination. Scandura and Lankau indicate that women would be expected to have different responses to work in terms of organisational commitment and job satisfaction, compared with men, especially when employers offer family-responsive policies. Women's morale may also increase when such policies are offered (Rousseau, 1995).

Education

Mottaz (1984) found that, in general, job satisfaction was negatively related to education. In nursing, this is supported by Blegan (1993), Cavanagh, (1992b), and Price and Mueller (1981) who suggest that job dissatisfaction increases in registered nurses as they gain higher educational qualifications. It seems that as nurses upgrade their qualifications, if their employing organisation does not encourage the use of their new skills and knowledge then job dissatisfaction increases. This may be the reason for higher educated nurses who tend to change jobs more frequently than those with basic qualifications (Price & Mueller).

The role of education and job experience in relation to nurses' job satisfaction has been studied extensively (Blegan, 1993; Decker, 1985; Jennings, 1990; Keane, Ducette, & Adler, 1985; Lucas, Atwood, & Hagaman 1993; Motowidlo, Packard & Manning, 1986; Norbeck, 1985a, 1985b; Packard & Motowidlo, 1987; Revicki & May, 1989; Tumulty, Jernigan, & Kohut, 1994; Weissman et al., 1980). According to most of these studies, staff nurses with baccalaureate (Bachelors) degrees or higher, develop professional expectations in their education which tend not to be substantiated in their staff nurse role experience. By comparison, those who have diplomas/associate degrees tend to have a more positive experience in this role. In another study, baccalaureate

nurses tended to "burnout" more readily than diploma nurses (Keane et al.).

Employment status and hierarchical status

For the purposes of this study, employment status is defined by the number of hours in employment, either full- or part-time. Hierarchical status is defined as the position on the nursing hierarchy that an individual has attained.

Generally, the relationship between job satisfaction and employment status was found to be inconsistent (Fenton-O'Creevy, 1995; Rotchford & Roberts, 1982) although Jansen et al., (1996) found that nurses employed for more hours were less satisfied with their work. Jolma (1990) found that full-time employment was correlated with greater role overload and a greater intent for nurses to leave their job. It should be noted that Jolma did not measure a direct link between job satisfaction and employment status (i.e. full- and part-time).

Matrunola (1996) uncovered a significant correlation between position on the nursing hierarchy and emotional climate of the ward/unit, indicated by the fact that charge nurses demonstrated the most job satisfaction. Cohen-Mansfield and Rosenthal (1989) found that seniority on the nursing hierarchy had an obvious effect on satisfaction, and on absenteeism. They indicate that, while some stressors can be related to the clinical role of the nurse, others are a result of the nurses' role and the organisational pattern within which they work. Autonomy and the authority to make decisions have been discussed above. It is apparent that in general, nurses experience higher job satisfaction with greater levels of autonomy. From the author's experience in nursing, the higher up the hierarchy one gets the more autonomy and decision-making responsibilities are gained. If the relationship between autonomy and job

satisfaction is positive, then it follows that the relationship between higher hierarchical nursing positions and job satisfaction will also be positive. This is assuming that other variables are not markedly influencing job satisfaction.

Individual differences

Those individuals who are shown to be positive about life, and have strong work ethics, have higher job satisfaction and tend to be more committed to their jobs. By contrast, those with negative feelings towards life, tend to be dissatisfied with their jobs (Agho, 1993; Gurney et al., 1997).

Jain et al. (1996) reviewed the literature and found three variables that have specific effects on nurses' job satisfaction. These were: locus of control, perceived job stress, and psychological distress. Further analysis revealed that locus of control was not significantly correlated with job satisfaction. However, as expected, external locus of control was negatively related to job satisfaction. Both job stress and psychological symptoms were significantly negatively correlated with job satisfaction of nurses.

Job stress is not unique to nursing, but nursing does create a particular pattern of stress due to the strains women are experiencing in their changing role, the pressure of cost-effectiveness within nursing, and conflicts of opinion as to what a nurse's role actually is (Benner & Wrubel, 1989). These pressures tend to be cumulative and result in burnout (Matrunola, 1996). Those people in poorer mental health are more susceptible to the effects of stress than those experiencing better health (Ceslowitz, 1989). How individuals cope with job stress is a personal process.

Outcomes of job satisfaction

There is much support for links between job satisfaction and a variety of individual and organisational outcomes, however the causality of these relationships is questioned (Cranny, Smith, & Stone, 1992). The following is an outline of studies which have examined these causal relationships between job satisfaction and organisational outcomes.

Organisational commitment

Organisational commitment is defined as the strength of one's identification with, and involvement in, a particular organisation (Mowday, Steers, & Porter, 1979).

Job satisfaction is the most important predictor of organisational commitment (Acorn et al., 1997; Mowday et al., 1979), and a causal relationship between the two constructs was identified by Vandenberg and Lance (1992).

Blegan (1993) also reported that there is a strong relationship between nurses' job satisfaction and organisational commitment, and she highlights that commitment has been studied as the major dependent variable in studies of nurses' organisational behaviour.

Using 171 nurses (aged 35-45 years), Knoop (1995b) investigated the relationship between involvement in work, job commitment to the employing organisation, and satisfaction with the job overall. The relationship between satisfaction and commitment was moderately strong, between satisfaction and involvement, negligible, and between involvement and commitment, moderate. Hackman and Oldham (1980) suggest that work may be perceived as routine and repetitive, and lack variety and challenge. Work may require involvement but it may not

necessarily be satisfying. A possible reason for nurses being committed to their organisation is because they choose nursing as a profession; the particular hospital they work in may not mean as much to them as the profession itself (Knoop).

Davy, Kinicki, & Scheck (1997) in two field studies found strong support for their hypothesis that job satisfaction mediated the effects of job security on organisational commitment, and organisational commitment directly affected withdrawal intentions. Specifically, job security had a direct positive effect on job satisfaction. However, the relationships between job satisfaction, job security, and organisational commitment are still unclear. Job satisfaction may be more important in creating employee commitment and loyalty, particularly in the present employment climate, job security can no longer be embraced as a motivator (Burke, 1996).

Dodd-McCue and Wright (1996) examined attitudinal commitment of accounting and auditing workers to their workplace, by measuring participants' organisational involvement and job satisfaction. Two models were used: the gender model and the job model. The gender model is based on gender stereotypes, and suggests that socialisation processes may cause women to prioritise family activities over work commitment. By contrast, men's socialisation processes often cause them to identify as being assertive, independent, and goal-directed. The job model suggests that the workplace environment can directly influence employees' organisational involvement and job satisfaction. It indicates that workplace environments can often be unfriendly to women unless they receive similar organisational experiences to men. Women, it seems are less committed to their organisations than men. Men's job satisfaction supported the job model, but both the gender and job models appear to influence job satisfaction for women. Mathieu and Zajac (1990)

found, however, that there was "no consistent relationship" between gender and the level of individual's organisational commitment.

No gender differences in organisational commitment were reported by Cromie (1981). However, one of the criticisms of research which previously examined gender-related differences in the study of job attitudes has been the lack of control of demographic variables, for example, age and level of education, in nursing (Lefkowitz, 1994). In a study of 832 men and women (heterogeneous group), Lefkowitz found that variables such as job satisfaction disappeared when job characteristics, such as those described above, were controlled for. Nevertheless, Russ and McNeilly (1995) found that the link between organisational commitment and turnover intentions was weaker for women than for men.

Retention and turnover

Hospitals, Cavanagh (1989) states, are organisations where many pass through, but few stay on.

Greenhalgh and Jick (1979, cited in Davy et al., 1997) suggest that individuals who leave an organisation during times of great insecurity, tend to be the most valuable employees. This has major implications for the organisation, in terms of cost and productivity.

Job dissatisfaction has been repeatedly identified as the single most common reason for nurses leaving their jobs (Blegan, 1993; Cavanagh & Coffin, 1992; Irvine & Evans, 1995; Lum et al., 1998; Price & Mueller, 1981, 1986a; Weissman, Alexander & Chase, 1981). Turnover increases costs, as new employees require training and orientation.

Kangas, Kee, and McKee-Waddle (1999) found that the most important element of nurses' job satisfaction was a supportive environment. They found that supportive environments enhance self-recognition of successful job performance, and provide a sense of achievement, leading to higher levels of job satisfaction. Butler and Parsons (1989) suggest that nurses leave the profession because they experience a personal lack of fulfilment, which stems from their inability to achieve the unrealistic expectations placed on them by the ever-changing environment of nursing. If anything the pace of change has accelerated since that time.

Absenteeism

Absenteeism is defined by Song et al. (1997), as the number of unscheduled hours a nurse is absent from work. Matrunola (1996) found little evidence to support the hypothesis that there is a relationship between absenteeism and job satisfaction. She points out that, although one's intuition would lead one to expect that absenteeism and low morale or lack of job satisfaction are related, in reality this may not be so. Clarke (1975, cited in Matrunola) reported similar findings, that the 'more satisfied' nurses often had poor attendance records. Absenteeism more than likely adds further costs to hospital budgets (Brooke, 1986, cited in Blegan & Mueller, 1987).

Burnout

Burnout is defined as "physical and emotional exhaustion resulting in negative responses and attitudes towards both others and oneself" (Matrunola, 1996, p. 828).

Burnout is characterised by high work pressure and low work involvement. This may result in nurses emotionally withdrawing in order to cope within a busy hospital environment (Matrunola, 1996).

Dolan (1987) divided the symptoms of burnout into two categories:

1. Behavioural consequences, such as, lateness or absence, poor performance with little attention given to detail, more complaints and grievances given by the individual experiencing the burnout, and eventual withdrawal from the job.

2. Observable harmful effects on the individual's mental and physical health. Examples of these are: self-doubt, lowered self-esteem, depression, feelings of inadequacy, headaches, insomnia and gastro-intestinal disturbances, many are similar to the effects of stress.

Nurses' job satisfaction is strongly negatively related to stress (Blegan, 1993). Nurses and social workers seem to be more prone to high job related stress levels and burnout (Maslach, 1982). Work dissatisfaction and burnout are not identical constructs, although they are often confused (Zedeck, Maslach, Mosier, & Skitka, 1988). While greater work satisfaction has been strongly associated with less burnout, the causal direction of this relationship has not been determined (Maslach). Thus, burnout and work satisfaction may be a reciprocal relationship. That is, people who are more dissatisfied with their work are more likely to become burned out, but also staff members experiencing burnout are more likely to be dissatisfied with their work situation.

Maslach and Jackson (1981) found that burnout patterns varied with age. In their study, burnout seemed to occur within the first few years of one's career, and those in the older range of the sample were those who had survived the early stages of their careers and managed stressors better than those who showed signs of burnout.

Patient satisfaction

Gilloran et al. (1994) concluded that in wards where work satisfaction was high, quality of care was also evaluated to be higher. Low levels of job satisfaction in nursing could reflect on the quality of patient care (Cavanagh, 1992b), potentially instigating a vicious cycle.

Weissman and Nathanson (1985) measured job satisfaction of 344 registered nurses employed in 77 different family planning clinics. The study revealed that nurses' job satisfaction was reflected in the level of patient satisfaction, and as a consequence patient compliance with contraception reflected their level of satisfaction. Packard and Motowidlo (1987) suggest that absenteeism, morale and work-related stress can also all influence the level of patient care which gives rise to patient satisfaction. Patient satisfaction decreases as staff morale decreases (Worthington, 1993). Registered nurse turnover is inversely related to patient satisfaction (Henry, 1992). Patient satisfaction with nursing care is an important predictor of overall satisfaction with the hospital care as a whole (Greeneich, 1993).

Summary

High levels of job satisfaction assist health organisations in their bid for successful recruitment and retention, organisational commitment of nurses (Kramer & Schmalenberg, 1991; Wells, 1990), and also in patient satisfaction. Conversely, job dissatisfaction can be costly, the contributing factors being; turnover, absenteeism, problems of low morale, and conflicts among employees (Martin, 1990).

Summaries of studies on nurses' job satisfaction

International studies

Blegan's (1993) study describes the strength and consistency of the relationships between nurses job satisfaction and the variables, which are most frequently associated with it. A meta-analysis of data from 48 studies was conducted using a total of 15,048 respondents. The correlations produced by meta-analysis are regarded as more accurate than those produced by single studies, because combined studies are more representative of the population. Blegan's study identified 13 variables, which were most often linked with nurses' job satisfaction. These variables are: stress, commitment, communication with supervisor, autonomy, recognition, routinisation, communication with peers, fairness, locus of control, age, years of experience, education, and professionalism.

Blegan and Mueller (1987) had previously found that those nurses most satisfied with their jobs were likely to have non-routine tasks to perform, perceive opportunities for promotion, observe that rewards were fairly distributed, be older, work day shifts, and not be either over- or underworked. In addition, these nurses perceived fewer opportunities for work outside the hospital that they were currently employed in. Factors that did not seem to influence the level of job satisfaction were: a broad spectrum of training, working full- or part-time, position in the hospital, social integration, pay, motivation, number of years worked, or unit size.

Decker (1997) suggests that those factors which nurses list as common stressors, are not those specifically related to nurses' job satisfaction. He found that there were six independent variables, which significantly predicted job satisfaction. These variables are, in descending order of magnitude:

1. relationship with head nurse
2. conflict between job and activities outside the job
3. relationship with co-workers
4. unit tenure, the longer nurses worked on one unit, the more likely they were to indicate job dissatisfaction.
5. relationship with physicians
6. relationship with other units/departments.

In Goodell and Van Ess Coeling's (1994) study of 150 registered nurses and licensed practical nurses, the components contributing to job satisfaction were ranked in the following order of importance:

1. pay
2. professional status
3. autonomy
4. interaction
5. task requirements
6. organisational policies

The outcomes of a study by Gurney et al. (1997), of 869 nurses holding doctoral degrees, reflected the professional model - even though in the strictest sense nurses cannot be classed as professionals. In summary, these nurses were found to:

> react to nonlocal market opportunities; the professional values of autonomy, variety, and justice are important; career ladders are very important; a heavy workload is a "positive" rather than a "negative"; pay is not important; adequate resources are important; work setting (size of organisation and academic vs. non-academic) is not very important. (p. 170)

Riordan (1991) collected data from a sample of community health nurses, school nurses and home health nurses. This study showed that prestige had the highest positive correlation with job satisfaction. Three other sub-scales were found to be moderately and positively correlated with job satisfaction: social interaction, organisational requirements, and autonomy. Weak positive relationships were found with years of work in general, years on the job, age, and years of education. Pay was not related to the job satisfaction of these nurses.

Five major reasons for nurses staying in their job were highlighted by Urden (1999) in a study of paediatric nurses' job satisfaction. These were:

1. co-worker communication and support
2. overall job satisfaction
3. satisfaction with schedule and shift
4. opportunities for diversity with clinical experiences and challenges
5. salary.

Five major reasons why nurses leave their job, identified in the study, were:

6. low salary
7. poor benefits
8. little recognition, respect, or input into practice
9. dissatisfaction with shift/schedule
10. career opportunity elsewhere.

Other less important reasons for leaving included: poor management and communication, inappropriate registered nurse-to-patient ratio, and poor collegial communication and support.

New Zealand studies

A study carried out by the research officer for New Zealand Nurses Association, John Dickson (1992, cited in O'Connor, 1992) surveyed 403 nurses who were still in the nursing workforce after 11-14 years. A 62% response rate was obtained. This study examined nurses' attitudes towards restructuring, education, and management. Although the intention of this study was not to assess nurses' job satisfaction, many of the variables reported are similar to those discussed under intrinsic and extrinsic factors, and demographic variables associated with job satisfaction. Demographically, 96% of the respondents were women, 45% worked full-time and 55% part-time.

Intrinsic factors:

- Recognition of skills and knowledge, and being a valued team member were the most important factors of work enjoyment.
- Midwives stressed the positive achievement of greater autonomy.
- 71% stated that freedom to move to another job outside their present location was entirely dependent on other people, such as family commitments.

Extrinsic factors:

- 34% suggested that poor salary would be the single most important reason for resigning, and 10% said they would resign if there were a reduction in penal rates.
- 40% said there was adequate consultation by nurse managers, 33% disagreed.
- Good relationships with colleagues was found to be rated more important than pay.
- 17% stated that unacceptable working hours would be a major reason for quitting.

- 45% felt access to continuing education was not well developed, 31% believed it was.
- Family reasons would be a justification for 30% of the respondents to resign.

An overwhelming theme was that nurses felt tight budgetary restraints meant that, as quality of nursing care reduced, stress within staff increased. When asked, where would they be in two years time, 70% said they would still be nursing, but the figure dropped to 45% when asked where would they be in five years time.

Ng (1993) developed a multi-faceted job satisfaction scale which he deemed appropriate for nurses. The scale was derived from Spector's (1985) Job Satisfaction Survey, a scale used for human service employees, and from other instruments specifically designed for studying nurses. With the help from a panel of 30 nurses, he then identified the major work domains/factors of importance to nurses. Seven domains/factors were identified and measured by the 24-item job satisfaction scale (Appendix A). They are:

1. Administration
2. Co-worker
3. Career [prospects]
4. Patient care
5. Relationship with supervisor
6. Nursing education
7. Communication

Ng (1993) studied nurses from 20 of New Zealand's largest hospitals (n = 1249) over a 15-month period, to establish if there was a relationship between job satisfaction and turnover. Analysis showed that of the 7 domains identified in the job satisfaction scale, career prospects and the relationships with supervisors were significantly related to turnover.

Measurement of nurses' job satisfaction

Measurement of job satisfaction probably began with Mayo (1945, cited in Tovey & Adams, 1999) who argued that the major determinants of job satisfaction were group interaction, which satisfied personal relations in the workplace, and good leadership. Subsequently, Herzberg et al. (1959) composed the two-factor theory of job satisfaction (described under section *Theories of job satisfaction*, above). This multi-dimensional approach was highly influential in the development of many other tools used for the measurement of job satisfaction, and highlighted the complexity of measuring such a construct.

Tovey and Adams (1999) believe that not only have different theories of job satisfaction developed over time, but also factors of job satisfaction may have changed to reflect the climate of modern management practices and new technology in the workplace. They conclude that nurses are not an homogenous group with regards to job satisfaction, and therefore measurement tools need to reflect the different levels of nursing positions. They suggest it is important to recognise that nurses' levels of job satisfaction are becoming more varied with the increasing difference in local work environments.

Misener et al. (1996), in their search for an international measure of job satisfaction, suggested that a "best-fit" instrument should be satisfactory in a variety of cultures and settings, provided that setting-specific data, and a comparison across settings and sites, be allowed for. They recommend that a combination of measures be used - a parsimonious measure of overall job satisfaction and, when required, a detailed "diagnostic" tool for more specific data.

There is, however, less agreement about how to measure job satisfaction, and which factors to consider. Misener et al. (1996) suggest that satisfaction scales specific to nursing may be limited by the ability to compare results with other occupational groups, however such scales are probably better equipped to identify those factors most important to nurses' job satisfaction.

Gillies, Foreman and Pettengill (1996) comment that most researchers have measured nurses' job satisfaction at a single point in time. They suggest that this approach assumes that a nurse's satisfaction does not change much throughout his/her tenure in a specific position, implying that job satisfaction is more likely to be influenced by personal, rather than organisational factors. Gruneberg (1979, cited in Gillies, Foreman, & Pettengill, 1996) theorises that an individual's job satisfaction continuously changes, as s/he changes to new and different circumstances, and to the acquisition of new values.

A minority of studies have, however, measured nurses' job satisfaction over multiple time points. Blegan and Mueller (1987) examined job satisfaction as an overall measure, not merely as satisfaction with facets of the job. They measured nurses' job satisfaction twice, with an eight-month interval between measurements. This was done to determine the effects of many environmental factors, while controlling for subjects' satisfaction at Time 1. They concluded that job satisfaction for the nurses in their study remained fairly stable through time. By contrast, two other longitudinal studies (Humphris & Turner, 1989; Stillwaggon, 1989, cited in Gillies, Foreman & Pettengill, 1996) found that nurses' job satisfaction changed over time.

Three comparatively recent tools measuring nurses' job satisfaction have been developed with a multi-dimensional approach, and they all contain a number of similar components. These tools are:

1. Stamps and Piedmont's (1986) tool based on the Job Descriptive Index (JDI) developed by Smith (1969, cited in Tovey & Adams, 1999). This tool measured the following components: pay, autonomy, task requirements, organisational requirements, job status, and interpersonal interaction.

   The satisfaction instrument, Index of Work Satisfaction (Stamps & Piedmont, 1986), is designed to identify job components that nurses are not satisfied with *and* the relative importance of each of the components. Mueller and McCloskey (1990) concluded that this instrument was not easy to use. This, they suggested was not only due to the fact that researchers had to collect two types of information, but also the scoring procedures were relatively complex.

2. In an attempt to meet a need for an easy-to-use, reliable, and valid measure, the McCloskey/Mueller Satisfaction Scale (MMSS) which was deemed to meet this need, was developed by Mueller and McCloskey (1990). The MMSS measures eight component sub-scales: extrinsic rewards (e.g. salary, vacation, benefits), scheduling, family/work balance, co-workers, interaction, professional opportunities, praise/recognition, and control/responsibility. Mueller and McCloskey recommend the use of a global scale, as a general measure of nurses' job satisfaction only when there is no interest in which elements of the job or work environment are affecting that satisfaction. Their rationale for this is that the dimensions identified through factor analysis combine aspects of the job and may conceal particular aspects that the nurse is satisfied with.

3. Measure of Job Satisfaction (MJS) developed by Traynor and Wade (1993). This tool measures five components: workload, professional support, pay and prospects, training, and personal satisfaction.

It is apparent that components of job satisfaction measured, depend on the choice of measurement tool. Agho (1993) argues that the Price-Mueller nurse turnover model (1981) is one of the few models that provides a comprehensive framework to examine nurses' job satisfaction. This model has been both, widely cited and extensively used in studies of nurses' job satisfaction (Blegan & Mueller, 1987; Mowday, Porter and Steers, 1982), and uses seven variables: routinisation, participation, instrumental communication, integration, pay, distributive justice, and promotional opportunity.

Grant et al. (1994) concluded that nurses' job satisfaction is an important area of study, however they argue that there is still a lack of a unifying theoretical framework on which to base a suitable measuring tool.

For the purposes of the present study, Ng's (1993) 24-item job satisfaction scale was used. The reason for choosing this measurement tool was two-fold. Firstly, it was developed in New Zealand for the specific purpose of measuring New Zealand nurses' job satisfaction. Secondly, using this scale would allow for a direct comparison between results of Ng's study and the present one conducted eleven years later, following several years of important change in nursing management, training and practice. The details of this measurement tool are outlined under the section, *Measurement instrument,* in Chapter Two.

Rationale for the present study

Very little research has been done on New Zealand nurses' job satisfaction. A literature search of seven databases relevant to the fields of both nursing and psychology was conducted. This search uncovered only one study which examined nurses' job satisfaction in New Zealand in reasonable detail: Ng's (1993) research. The aim of the current research is to discover whether factors affecting nurses' job satisfaction have changed greatly during the time between the two studies. It is hypothesised that the changes in nursing, such as modifications to levels on the nursing hierarchy, and alteration to training programmes, resulting from the Health Reforms during the 1990's, will be reflected in changes in nurses' job satisfaction.

It is hoped that the information obtained from this research will be of use to nursing, both within the hospital being studied and potentially throughout New Zealand. Given an increased understanding of the determinants of nurses' job satisfaction in the current climate, it should be possible to explore factors of potential job dissatisfaction while student nurses are still learning. Students can examine ways in which job satisfaction could be increased while they are in the protective learning environment. Gaining such knowledge and skills can only better equip them for the transition from student to beginning practitioner.

It is also hoped that the findings of this research will assist hospital and nursing management of the hospital used in the study, to minimise absenteeism and burnout, and promote retention of nursing staff through identifying issues affecting job satisfaction.

Research aims and objectives

Overall aim

The aim of this research is to explore nurses' job satisfaction within a major Auckland public hospital, using Ng's (1993) 24-item job satisfaction scale.

Objectives

1. Compare and contrast the findings of Ng's (1993) study with this present study.

2. Identify gender differences in registered nurses' job satisfaction in an Auckland public hospital.

3. Analyse the effect of demographic and employment characteristics such as; age, marital status, years of experience in nursing, qualifications, and employment status, on participants' responses to the job satisfaction questionnaire.

4. Research other studies of nurses' job satisfaction to ascertain any differences in the findings with the present study.

5. Recommend ways in which job satisfaction levels of those nurses working within the hospital used in this study, could be improved.

Chapter Two

METHOD

Participants

Fifty percent of the female registered nurses and all of the male registered nurses employed in Green Lane hospital were invited to participate in the study. It was anticipated that there would be a 40 - 50% (n = 100-115) return rate from female registered nurses and a minimum of a 60% ($n > 20$) return rate from the male registered nurses. The actual return rates were female registered nurses: 46% (n = 111) and male registered nurses: 38.7% (n = 12). The percentage difference between the genders was an attempt to counterbalance the disproportionate numbers of female to male registered nurses.

Procedure

This research was confined to Green Lane Hospital, one of Auckland's major public hospitals. This hospital was selected because of its specialty nursing. The hospital's primary health focus is cardio-thoracic medicine and surgery; ear, nose and throat medicine and surgery; gynaecology, and a variety of outpatients clinics and diagnostic centres. The hospital caters for both adults and children. Using a hospital with a large number of specialty units, specifically coronary care and intensive care, was an attempt to find a larger proportion of male nurses, since literature suggests that male nurses tend to work in these areas.

The senior nurse within the hospital was requested to randomly select participants. Randomisation was done by selecting every second female registered nurse from a staff list, all male registered nurses were selected. An information sheet (see Appendix B) describing the details of the study, the 24-item job satisfaction scale (Appendix A) and a demographic details questionnaire (Appendix C) were distributed on the basis of the list of subjects provided. Subjects were invited to complete the questionnaires and return them to the researcher in the pre-addressed and stamped envelope.

Nurses were asked to rate their level of agreement with the statements on the job satisfaction questionnaire using a scale ranging from 1 to 7, 1 being "strongly agree", 4 being "neither agree nor disagree" and 7 being "strongly disagree".

Demographic details (Appendix C) were sought from each participant including: gender, age group, marital status, ethnicity, length of nursing experience, educational qualifications, area of nursing (e.g. medical, surgical etc), level of position on the nursing hierarchy, and employment status (part- or full-time work).

The number of responses from male participants did not meet the initial expectations, (n = 10), therefore a follow up letter was sent to all the male registered nurses (see Appendix D). A further 2 male participants were recruited through this process.

Ethical considerations

This study required ethics approval and was received from:

1. Massey University Human Ethics Committee
2. Health Funding Authority Auckland Ethics Committees

Informed consent was implied in the completion and return of the questionnaires, as mentioned in the information sheet given to all participants. The information sheet clearly stated that participants had the right to decline the invitation to take part and, once involved in the study, they had the right to refuse to answer any particular question without penalty and without giving an explanation.

The senior nurse of the hospital was the only person involved in the selection of subjects. Research participants could not be identified from their returned questionnaires as no unique codes or identifiers were used. Raw data provided by the participants was seen by the researcher and her supervisor only, and was kept in a secure place.

A potential issue of copyright over the use of Ng's (1993) 24-item Job Satisfaction scale was avoided by the researcher gaining written permission from Professor Sik Hung Ng, Victoria University on 18 September 1997 to use this Job Satisfaction scale.

Measurement instrument

Ng (1993) evaluated three measures of job satisfaction: Brayfield and Rothe (1951), Hackman and Oldham (1975) and Smith, Kendall and Hulin (1969), all of which were developed in non-hospital settings and not used by Ng because of their inadequacy for measuring the experiences of nurses. Ng suggested that such standard measures may provide better comparative studies with other occupations, but he rejected the use of any of these for three reasons:

1. a standard measure does not represent the distinguishing features and peculiarities of specific workforces, and when studying nurses, a standard measure may not take account of the fact that it is a predominantly female profession.

2. a generalised measure has little diagnostic value. It may indicate levels of job satisfaction, but is not specific in identifying aspects of a job which may lead to the satisfaction / dissatisfaction.

3. no standard measure will remain static, it will eventually be replaced by a new measure which may or may not have greater validity and reliability. Ng suggests that the scale used in his study may be an example of a measure becoming a reference point for future studies, which is so, for this proposed research.

Cronbach's (1960) alpha coefficient for Ng's (1993) initial 33-item scale was .86, indicating good internal consistency. Those items which contributed the least internal reliability were removed one at a time, until 24 items remained, giving an alpha coefficient of .84, again indicating good internal consistency. The correlation between the 33- and 24-item scales was high (r = .98). Five months later another sample group (a sub-group of Sample 1) was tested (Sample 2, n = 855). Cronbach's alpha coefficient for the 33-item scale was .87 and for the 24-item scale was .85. Correlation of the two scales used with Sample 2 was similar to that of Sample 1. On the basis that the correlation between the two scales for both studies was so high, Ng chose to use the 24-item scale for subsequent studies.

The satisfaction scale's cross validity was evaluated by correlating it with a 9-item standard measure of organisational commitment (Mowday et al., 1982). The alpha coefficient of this organisational commitment scale was .85 and when cross validated with Ng's (1993) job satisfaction scale, a highly positive correlation was found, Pearson $r = .64$, $p < .001$.

Temporal reliability was measured at five months, and the two administrations of Ng's (1993) scale were found to be highly positively correlated, Pearson $r = .75$, $p < .001$.

With an acceptable level of internal reliability, a replicable factorial structure tested over a five month period, a positive correlation between the satisfaction scale and a standard organisational commitment measure, the scale was found to be relatively robust. The job satisfaction scale appeared to be a good tool to measure the job satisfaction of nurses. For this reason Ng's (1993) job satisfaction scale was chosen as the most suitable measurement for the present study examining gender differences in registered nurses' job satisfaction.

Chapter Three

RESULTS

Analytic strategy

In order to address each of the study's objectives, the data were analysed in the following ways, using the Statistical Analysis System (SAS, 1989) software.

1. A factor analysis was performed to ascertain whether the job satisfaction factors extracted by Ng in 1993, from a survey carried out in 1988, were appropriate to the present sample.

2. Pairs of males and females were matched on demographic details and *t*-tests were computed to establish if there was a gender difference in registered nurses' responses to the questions contributing most strongly to each of the factors uncovered in the factor analysis.

3. The effect of age, marital status, years of experience in nursing, professional qualifications, and employment status on nurses' responses to the job satisfaction questions was examined using a General Linear Model (GLM) analysis of variance. This analysis is appropriate for unbalanced designs.

An alpha level of .05 was adopted for all statistical tests. Where appropriate, the results of post-hoc power calculations are reported. These calculations were performed using a computer program available as shareware from the World Wide Web (Buchner, Erdfelder, & Faul, 1997).

Respondent demographic and employment characteristics

Table 1 presents the demographic and employment characteristics of the sample. Female nurses (90.2%) constituted the highest percentage of respondents, mimicking the overall percentage of females in nursing. Seventy percent of the respondents were aged between 26 years and 40 years. A greater proportion (65.9%) of respondents were partnered, defined as those who were either married or living with a partner, than were single. Those respondents who identified themselves as being single included those who were divorced or widowed. A minority of respondents (12.3%), identified with an ethnic group other than "European/New Zealander/Pakeha". The ethnic groups included Danish, British, Maori, Indian, Asian, American, Samoan, Italian and African.

Many of the respondents (48%) had a Diploma in Nursing as their highest nursing qualification. Prior to the introduction of degrees in nursing, this was the required standard, which permitted nurses to gain New Zealand registration. Among those nurses with a Bachelor's degree in nursing (29.3%), approximately 42% will have gained the qualification through a three-year programme leading to registration. This estimate is based on the years of experience, which are in line with the number of years that nursing programmes have offered degrees as a basic qualification towards registration. Degrees in nursing have superseded diplomas.

Respondents who identified their current clinical specialty as 'other' (10.7%), listed such areas as theatre, research, palliative care, transport, bureau, primary health care, and pain management. Part-time workers in the study worked an average of 27.2 (SD = 7.9) hours per week, in contrast to the 40 hours per week for full-time staff. The number of years of experience in nursing ranged from 1 to 40 years, with a mean of 14.0 years (SD = 9.4).

Table 1

Demographic and Employment Characteristics

Characteristics	N	%
Gender (*N* = 123)		
Female	111	90.2
Male	12	9.8
Age (*N* = 123)		
20 – 25	11	8.9
26 - 30	30	24.4
31 - 35	19	15.4
36 - 40	20	16.3
41 - 45	17	13.8
46 - 50	11	8.9
51 - 55	6	4.9
> 55	9	7.3
Marital Status (*N* = 123)		
Single	42	34.1
Partnered	81	65.9
Ethnic Identity (*N* = 122)		
European/NZer/Pakeha	107	87.7
Other	15	12.3
Highest Nursing Qualification (*N* = 123)		
Diploma in nursing (NZRN/NZRCompN)	59	48.0
Post graduate certificate	19	15.4
Post graduate diploma	8	6.5
Bachelor's degree (nursing)	36	29.3
Master's degree (nursing)	1	0.8
Current Clinical Specialty (*N* = 122)		
Medical	17	13.9
Surgical	17	13.9
Paediatrics	5	4.1
Specialist unit	67	54.9
Outpatient clinics	1	0.8
Management	2	1.6
Other	13	10.7
Level on Nursing Hierarchy (*N* = 122)		
Staff Nurse	101	82.8
Charge Nurse/Unit Manager	8	6.6
Clinical Nurse Educator	3	2.4
Clinical Nurse Consultant/Specialist	8	6.6
Nurse Adviser/Clinical Nurse Adviser	2	1.6
Employment Status (*N* = 122)		
Full-time (40 hours)	75	61.5
Part-time	47	38.5
Years of experience in nursing (*N* = 123)		
< 5 years	15	12.2
5 – 15 years	62	50.4
> 15 years	46	37.4

Factor analysis

Factor analysis was performed on the 24 items of Ng's (1993) job satisfaction scale. The data were screened for missing values and data entry errors.

Prior to analysis, eleven of the job satisfaction items that were negatively worded were reverse scored, so that for all questions the scores were in the same direction, with lower scores representing more positive responses.

Fifteen of the 123 questionnaires returned contained missing answers. Listwise deletion was used for all cases with more than one missing value among the 24 items on the questionnaire. This resulted in the data from five individuals, one male, and four females, being omitted from the analysis. A further 10 questionnaires had a single missing value each. The distribution of these 10 missing values was random, and made up only 0.35% of the 2,832 responses remaining in the data set. These missing values were estimated using the mean value of all responses for that item. These procedures resulted in 118 questionnaires being included in the analysis (females, n = 107 and males, n = 11).

The distribution of ordinal Likert scale responses is not normal, however only Maximum Likelihood factor analysis has a strict requirement for normality. It is generally acknowledged that although the solution is enhanced if the variables are normally distributed, factor analysis is a worthwhile way to summarise data such as these (Page & Meyer, 1999; Polit, 1996; Tabachnick & Fidell, 1989). The rationale for using the procedure was two-fold. Firstly, it was used to compare the number of factors extracted with those obtained over a decade earlier by Ng (1993). Secondly, it was used to derive scale scores for use in subsequent analyses.

The initial factor method was iterated principal factor analysis, with varimax rotation so as to mimic Ng's (1993) procedure. Prior communalities were estimated using the squared multiple correlation (SMC). The Heywood option in SAS was utilised. This sets to one any communalities greater than one, allowing iterations to proceed. The partial correlations between each pair of variables, controlling for all other variables, were examined. These were generally smaller than the original correlations. Kaiser's measure of sampling adequacy (Kaiser's MSA) was used to formally assess the appropriateness of the data for the analysis. The MSA's for individual questions ranged from .69 to .86 with an overall MSA 0f .77. Thus the analysis was deemed to be reliable.

Two criteria influenced the selection of the number of factors included in the analysis. The first was Cattell's scree test. The second was the Guttman-Kaiser rule of retaining factors with eigenvalues greater than 1.0. A 7-factor solution as derived from Ng's (1993) analysis was examined, however it did not meet the selection criteria. The scree plot suggested that three factors should be included, however the inclusion of four factors was also considered because a fourth factor had an eigenvalue close to, but less than 1.0. If four factors were retained, seven questions had factor loadings >.30 on more than one factor. (see Table E1, Appendix E). If three factors were retained only two questions had factor loadings >.30 on more than one factor. A 4-factor solution was therefore dropped in favour of the 3-factor solution. It is of interest that one factor in both analyses was identical with respect to the questions that had factor loadings above .30.

The factor solution emerged after seven iterations. The convergence criterion was set at 0.001. The final communality estimates were all above .2, except for question 4 (.12) indicating that this variable failed to load significantly on any factor.

The results of the orthogonal rotation are shown in the Table 2, where the items are ordered and blocked by size of loading to facilitate interpretation of the factor matrix. Loadings over .30 are highlighted. Interpretive labels are suggested for each factor in italicised writing.

Overall, the factor structure that emerged was reasonably clear and interpretable. The first factor, which accounted for 30.4% of the variance, had nine items with loadings above of .30. This factor seems to capture nurses' relationships with colleagues (other nurses, doctors and charge nurse), rostering, and communication with patients. This is called the Communication factor. Five of the nine items had loadings > .50.

The second factor had eight items with loadings above .30, and five of the items loaded greater than .50. The theme for Factor 2 clearly involves on-going education and the support hospital administration provides for nurses. This factor accounted for 29.5% of the variance and has been labelled the Career Development factor. One additional item, *"There are enough opportunities on my unit for developing my professional skills"*, also loaded strongly on factor 1 (loading = .44).

Six items had loadings above .30 on Factor 3. Three of these items had loadings, greater than .50. The factor captures negative dimensions of job satisfaction, such as dissatisfaction with nursing colleagues and lack of autonomy, and has been named the Autonomy factor. It accounted for 21.5% of the variance. One additional item, *"I have the feeling that my unit is not organised in such a way that the needs of patients are given top priority"*, also had moderate loadings (>.30) with the other two factors.

Cronbach's (1960) alpha coefficient for the present study was .86. This accords with Ng's (1993) study in which the alpha coefficient was .84 for the 24-item job satisfaction scale. A table of alpha coefficients for individual items is included on disk located inside the back cover.

Table 2

Rotated Factor Matrix, Means and Standard Deviations of Job Satisfaction Items (N = 118)

Factor/Item	Factor Loadings 1	2	3	Communality	Mean	*SD*
Communication						
Communication with patients (23)	**.66**	.11	.14	.46	2.10	1.27
Accept one another as colleagues (6)	**.61**	.20	.15	.43	1.75	1.19
Understanding by doctors (24)	**.58**	.12	.12	.36	2.81	1.66
Help one another (5)	**.55**	.20	.18	.38	1.81	1.22
Staff rostering (17)	**.51**	-.01	.26	.32	2.55	1.91
Requests for leave (16)	**.46**	.17	.02	.24	1.91	1.46
Working relationship (18)	**.44**	.23	.22	.29	2.31	1.55
Appreciation by patients (22)	**.44**	-.11	.07	.21	2.08	1.24
Dead-end job (10)	**.33**	.23	.29	.25	2.47	1.77
Career Development						
Administration care about nurses (2)	-.10	**.70**	.28	.58	4.81	1.36
Administration supports nurses (1)	-.05	**.65**	.29	.51	4.58	1.34
Administration consults nurses (3)	-.01	**.59**	-.08	.36	4.30	1.69
Professional development (9)	**.44**	**.54**	.08	.49	2.77	1.79
Promotion (11)	.20	**.53**	-.03	.32	3.56	1.69
Orientation programme (20)	.22	**.50**	.17	.32	3.27	1.97
Inservice training (21)	.21	**.43**	.09	.23	3.39	2.00
Courses and seminars (19)	.16	**.42**	.13	.22	3.90	2.02
Autonomy						
Close supervision (15)	.17	.07	**.64**	.45	2.14	1.60
Incompetence (8)	.12	-.02	**.63**	.41	2.57	1.67
Petty quarrelling (7)	.08	.05	**.51**	.27	2.73	1.73
Patient needs (14)	**.34**	**.37**	**.44**	.45	2.75	1.81
Professional judgement (13)	.13	.21	**.43**	.25	2.79	1.74
Patient care (12)	.27	.19	**.32**	.21	3.32	1.85
Eigenvalue	5.43	1.79	1.18			
% of variance explained	30.4	29.5	21.5			

Note. Item 4 on the questionnaire does not appear in this table. Factor loadings for this item on the three factors were .16, .19, and .23 respectively. The numbers in brackets beside each item in the table, indicates the number of the question on the job satisfaction scale.

Examination of gender differences

Each of the male respondents (n = 11) was matched on demographic details to a female nurse. Each pair was matched as closely as possible on all demographic characteristics, however for six of the pairs there was a potential age difference between 10 and 15 years. Four of the pairs had one of the pair being single and the other partnered. Five of the pairs had a different number of years of experience, however these differences were not large. Only two pairs showed differences in positions on the nursing hierarchy and a further two pairs had differences in the number of hours worked per week. Full details are given in Table F1, Appendix F.

Scale scores were computed using the sum of the Likert scale responses to the questions that loaded strongly onto each factor. These were, for Factor 1: Questions 5, 6, 10, 16, 17, 18, 22, 23 and 24; for Factor 2: Questions 1, 2, 3, 9, 11, 19, 20, and 21; and for Factor 3: Questions 7, 8, 12, 13, 14 and 15. Informally there appeared to be a tendency for the female mean responses to be lower than the male mean responses. The means (standard deviations) were Factor One, Males = 22.64 (8.42), Females = 16.36 (4.48); Factor Two, Males = 32.18 (7.99), Females = 28.36 (5.92); Factor Three, Males 18 (6.99), Females = 15.55 (6.17).

Exploratory data analysis confirmed that scale scores for each factor were normally distributed, therefore differences between the groups were examined formally, using independent-samples t-tests. The analysis confirmed a significant difference between males and females for Factor 1 (Communication), t (20) = 2.18, p = .041, but not for Factor 2 (Career Development), t (20) = -1.27, p = .22, nor for Factor 3 (Autonomy), t (20) = 0.87, p = .39. Figure 2 shows the means and standard deviations for males and females on each of the three factors. In the figure, for ease of comparison between factors, scale scores were converted to values on the original response scale by dividing them by the number of questions

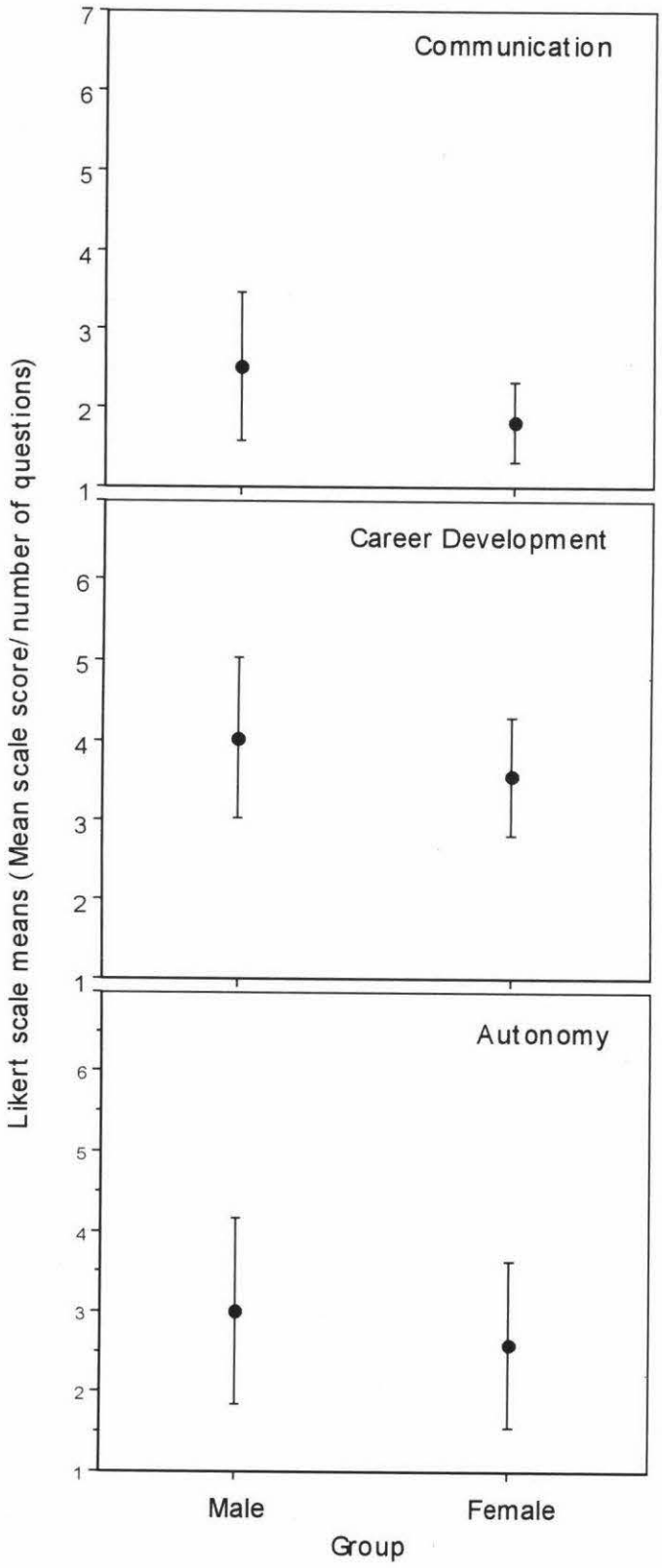

Figure 2. Mean responses of males and females to questions underlying each of the three factors. The error bars represent ± one standard deviation about the mean. The response scale ranged from 1, most positive to 7, most negative.

loading significantly onto each factor. Comparisons of means and standard deviations between males and females for each item on the job satisfaction questionnaire can be seen in Table 3 to follow.

At the outset of the study, a medium effect size was anticipated. However, given that there were only 11 participants in each group, less than expected, power was very low. Assuming a medium effect size, d = .5 (Cohen, 1992), then power = .2. For a small effect size, d = .2, power = .12.

Effect of demographic variables on responses

As discussed in Chapter One, a variety of demographic variables have been shown to influence nurses' job satisfaction. Specific variables analysed in this study were age, marital status, years of experience in nursing, qualifications, and employment status. Table 1 summarises these demographic and employment characteristics. It should be noted that ethnic identity, current clinical specialty, and level on the nursing hierarchy have not been included in the following analyses. Since numbers in the "manager" level were so few (n = 18), and as these would comprise a variety of levels on the nursing hierarchy, comparison of responses with the remainder of the sample (n = 99) was not attempted. Similarly, there were insufficient numbers in the "other" group of ethnic identity (n = 15) to compare with the responses of those who identified as "European/NZer/Pakeha" (n = 112). The variable "Current Clinical Specialty" was not analysed as each "specialty" covered a variety of placements. Exploration by placement (with 67 nurses in a variety of specialist units and the remaining 55 others in various placements within their specialty, for example, Ear, Nose and Throat specialty would be listed under surgery) was deemed not to be very informative.

Table 3

Comparison of Means and Standard Deviations Between Males and Females on Each Item of the Job Satisfaction Survey

Factor/Item	Males (n = 11)		Females (n = 11)	
	Mean	***SD***	**Mean**	***SD***
Communication				
Communication with patients (23)	2.27	1.68	1.91	1.04
Accept one another as colleagues (6)	2.09	1.30	1.36	0.67
Understanding by doctors (24)	3.45	2.21	2.55	1.37
Help one another (5)	1.73	0.65	1.64	0.92
Staff rostering (17)	2.73	1.42	1.91	1.22
Requests for leave (16)	2.27	1.56	1.27	0.47
Working relationship (18)	2.64	1.29	1.82	1.17
Appreciation by patients (22)	2.64	1.69	2.00	1.10
Dead-end job (10)	2.64	1.63	1.91	1.38
Career Development				
Administration care about nurses (2)	5.00	1.26	5.00	0.89
Administration supports nurses (1)	5.27	1.01	4.64	1.12
Administration consults nurses (3)	4.45	1.86	4.64	1.50
Professional development (9)	2.73	1.42	2.36	1.43
Promotion (11)	3.73	1.56	4.18	1.33
Orientation programme (20)	3.55	1.86	2.18	1.54
Inservice training (21)	3.73	1.62	2.91	1.81
Courses and seminars (19)	3.73	1.79	2.45	1.75
Autonomy				
Close supervision (15)	2.18	1.40	2.27	1.90
Incompetence (8)	2.82	1.83	2.73	1.79
Petty quarrelling (7)	3.55	1.97	2.64	1.80
Patient needs (14)	2.82	1.66	2.45	1.63
Professional judgement (13)	2.82	1.33	2.64	1.63
Patient care (12)	3.82	2.40	2.82	1.40

Note: Item 4 on the questionnaire does not appear in this table, as it did not load strongly on any of the factors.

Exploratory data analysis confirmed that scale scores for the variables to be analysed were not normally distributed, most having a strong positive skew. In order to transform scores to normality the data for each variable were log transformed. This procedure produced a moderate negative skewness for each variable, which was corrected by reflection followed by a square root transformation.

Post-hoc power estimates, using Cohen's (1992) conventions, for the ANOVAs reported below were conducted using G-Power software (Buchner, Erdfelder, & Faul, 1997). For unbalanced designs the program uses the average sample size. For this reason the calculations represent a somewhat liberal estimate of power. With a total sample size of 118 and assuming a small effect size (f = .10), power was estimated to be .77. Assuming a medium effect size (f = .25), the power was estimated to be .19.

Age

Participants (N = 118) were divided into two groups, those between the ages of 20 – 35 years (n = 59), and those 36 and over (n = 59). Transformed data were submitted to a GLM analysis of variance with factor and age, as independent variables. In this, and subsequent analyses, a significant main effect for factor is trivial because the factor scores were sums across different numbers of questions. The effects of interest concern the remaining variable, age and its interaction with factor.

As expected there was a significant main effect of factor F (2,116) = 190.42, p = .0001. Note that this statistic is constant to all but one, of the remaining analyses and is not reported again. However, neither the main effect of age, F (1,116) = 0.17, p = .68, nor the interaction between Age x Factor, F (2,232) = 0.79, p = .46, was significant.

Marital Status

Participants ($N = 118$), were assigned to one of two groups, single ($n = 42$) or partnered ($n = 76$). The GLM analysis of variance with marital status and factor as the independent variables showed that there was no significant difference between questionnaire responses to the three factors, and the single participants and those in a relationship, $F\ (1,116) = 0.00$, $p = .96$. The interaction between marital status and factor was not significant either, $F\ (2,232) = 0.32$, $p = .72$.

Years of experience in nursing

Those participants with ten years or less experience in nursing were assigned to one group ($n = 59$), and all other participants made up the group with nursing experience greater than ten years ($n = 59$). Analysis of variance revealed that neither the main effect, experience in nursing $F\ (1,116) = 0.09$, $p = .77$, nor the interaction between the factor and years of experience $F\ (2,232) = 0.37$, $p = .69$, was significant.

Qualifications

Participants were asked in the demographic questionnaire to state their highest nursing qualification. Those who had gained no further qualifications after registration ($n = 72$) were assigned to the group labelled "under-graduate". The remaining participants ($n = 46$) who had gained further qualifications after registration were assigned to the group labelled "post-graduate". In an analysis of variance the effect of qualifications on questionnaire responses on the three factors was not significant, $F\ (1,116) = 1.93$, $p = .17$. The interaction between qualifications and factor was not significant, $F\ (2,232) = 1.54$, $p = .22$.

Employment Status

In a GLM analysis of variance there was no significant effect between questionnaire responses to the three factors and nurses employed part-time (n = 45) or full-time (n = 72), F (1,115) = 0.08, p = .77. Nor was there a significant interaction between employment status and factor, F (2,230) = 0.01, p = .99. The number of participants' factor scores analysed for this variable (N = 117), was less than for the other variables, as one participant did not identify whether she was full- or part-time. The statistic for the significant main effect of factor was F (2,115) = 175.64, p = .0001.

Chapter Four

DISCUSSION

The purpose of the present study was to explore registered nurses' job satisfaction within a major Auckland public hospital. This was done using the job satisfaction scale developed by Ng (1993) for a study of nurses' job satisfaction in New Zealand in 1988. As such, the factor analysis of the present study differed from Ng's study, in that the number of factors extracted was three compared with Ng's seven, and the theme of Factor 3, Autonomy, was different to any extracted in the earlier New Zealand-wide study. Six demographic and employment characteristics of participants were explored in relation to job satisfaction; gender, age, marital status, years of experience in nursing, nursing qualifications, and employment status. This chapter includes a discussion of the findings of the job satisfaction survey of registered nurses in the present study, in relation to Ng's study and other reported findings. This discussion addresses the research objectives developed for this study.

Objective One: Comparison with Ng's (1993) study

The internal reliability of the 24-item job satisfaction scale developed by Ng was upheld by the present study, producing alpha coefficients of .84 and .86 respectively. This suggests that the job satisfaction scale developed eleven years ago remains a suitable tool for measuring nurses' job satisfaction in New Zealand.

Factor analysis of the present study revealed a three-factor solution, in contrast to Ng's (1993) seven-factor solution. This outcome is was not unexpected, given the eleven year period between the studies and the changes to the New Zealand Healthcare system during that time.

Interestingly, a number of Ng's factors have become assimilated with each other in the present study. Perhaps concerns with aspects of nurses' work and job satisfaction have become more focussed eleven years on. In his discussion five years after his 1988 study, Ng suggested the Health Reforms of the early 1990's would effect nurses' job satisfaction. He stated:

> Most nurses in public hospitals are now managed by general managers who are unlikely to be nurses themselves. The effect of the new management environment on nurses' job satisfaction can be gauged on a national level against the present normative data. (p. 52)

The Health Reforms introduced a new structure to the larger New Zealand hospitals. Prior to this, "managers" of hospitals were those doctors and nurses who had shown excellence in their field, and who had had a number of years of experience which assisted them up the hierarchy to levels of seniority. On occasion, these "managers" were promoted beyond their competence. Their ability to manage was judged on their nursing/doctoring expertise, with very little education/training in management skills offered in order to succeed in their new management position. While the New Zealand Government primarily funded hospitals, the need for management processes which is more apparent today, was not appreciated. Post Health Reforms, hospitals are run as a business with an emphasis on meeting budgets, and streamlining expenditure. Non-health professional managers were appointed to take a business oriented approach to hospital management, and senior nurses and doctors were designated to advisory roles on health matters.

As is usual with change, there have been criticisms of the Health Reforms. Many of those nurses and doctors who, prior to the reforms were the "managers" of hospitals, found having a non-health professional

in charge of the new structure a difficult concept to accept. The post Health Reform managers have been, and still are to a certain extent, criticised for their interference in decision-making over medical matters. As in any change of structure, it takes some time for those involved to settle into new roles, to identify areas of responsibility, and to decide how to deal with "grey" areas of responsibility. Fortunately, as the changed management processes have evolved, acceptance is more widespread. Health providers are now accountable for their spending which, from a taxpayers point of view, can only be beneficial. Accountability has always been an issue in nursing, however these reforms have broadened its meaning. Whereas nurses have focussed on accountability within their nursing practice, now "practice" extends to resourcing, budgeting and time management.

Along with the Health Reforms, a need to educate nurses in senior roles in the management process was identified. Whereas those nurse managers prior to the reforms often gained their knowledge of management by trial and error, the new breed of nurse manager is offered inservice and external management training, and in many hospitals a mentoring system. Nurses today seem to have a much better understanding of management processes which, if applied, has the potential to enhance the working relationships of staff and demonstrate efficient and effective nursing care.

The three-factor solution of the present study seems to reflect the changes brought about by the Health Reforms. The following is an examination of each of the three factors. Probable reasons for differences between Ng's (1993) seven-factor solution and the three-factor solution of the present study will be discussed.

Factor One: Communication

Responses to the Communication factor seem to be more positive overall, than those responses to the other two factors. The rationale for labelling this factor, Communication was that the majority of the items seem to encompass the wider issues of communication. Items 16, 17 and 18 all seem to have a logical underlying connection with communication. Requests for leave and staff rostering have been, and probably always will be, very important issues in the lives of nurses. Due to the non-regular work hours of nurses, it is most important for them to have life needs outside of nursing met. In general, an ability to have rostering and leave needs met, is a result of adequate planning and channels of communication which enhances an equitable and workable process. "Communication lies at the heart of all human endeavour. It is difficult to think of any achievement that is not dependent to a significant degree on communication activities" (Sligo, 1997, p. 1).

Interestingly, the mean scores (refer to Table 4) for the items "Requests for leave" and "Working relationship" in the present study are reasonably low, suggesting that levels of satisfaction in these two areas are higher than for other items. This is surprising given the current national nursing shortage which could contribute to a lack of flexibility in granting leave requests.

Items 5 and 6 ("Help one another" and "Accept one another as colleagues") loaded strongly on to the Communication factor in the present study. These two items have the lowest mean scores of all items, suggesting that nurses find these two issues the least satisfying.

On initial consideration, item 10 ("Dead-end job") does not seem to logically fit within the Communication factor. It should be noted however, that this item loads similarly across all three factors.

Factor Two: Career Development

Factor 2, Career Development was labelled such because the items seem to encompass the theme of nurses furthering their nursing career. Item 9 ("Professional development") loaded strongly on both the Communication factor and the Career Development factor, however as the factor loading was higher on the Career Development factor it was allocated to this factor.

It seems logical that items 1, 2, and 3 (Administration: "supports nurses", "care about nurses" and "consults nurses") contribute to the Career Development factor. Since education seems to play an important role in nurses career development, hospital administration's role in supporting, resourcing, and asking nurses what they need in their education, is a vital link to achieving this. Hospital administration's support (item 1), and caring about nurses (item 2) show mean scores which suggest lower levels of satisfaction in the present study than in Ng's (1993) study. There is an almost negligible increase in levels of satisfaction with administration's consultation with nursing staff (item 3) on daily problems and procedures.

It is apparent from Table 2 that the Career Development factor engenders the most negative assessments, suggesting less satisfaction. Knowledge that nurses are more dissatisfied with issues of Career Development than other factors, should be useful to Green Lane hospital. It is possible to improve nurses' satisfaction if greater attention is paid to the provision of more and/or quality inservice education and external courses and seminars. Should this occur, it follows that nurses' satisfaction with hospital and nursing administration could improve markedly. The standard deviations for each of the items shown in Table 2 are comparatively large, indicating that, among nurses, there is a range of opinions.

Factor Three: Autonomy

This factor seemed to include the negative features of the satisfaction survey. Of the three factors, this one was the most difficult to establish a logical label for. "Autonomy" was chosen because the factor which loaded most strongly, item 15, *"I feel I am supervised more closely than I need to be"* implied issues of autonomy. It was supported by two further items, 12 and 13, *"The house surgeons/registrars don't consult me about patient care as often as I would like"* and *"I am sometimes required to do things on my job that are against my better professional judgement"*, both of which loaded strongly.

Item 14, *"I have a feeling that my unit is not organized in such a way that the needs of patients are given top priority"* loaded moderately on all three factors, but most strongly on Autonomy.

Barrett and Myrick (1998) highlight that lack of autonomy as one of the main contributing factors to nurses' job dissatisfaction. Conversely, nurses who perceive a higher satisfaction with autonomy, will experience higher levels of overall job satisfaction, and will be less likely to leave their positions.

Autonomy in nursing is very important, and employers need to recognise it so as to prevent potential quitting behaviour. The literature discussed in Chapter One, unanimously supports nurses having autonomy in their practice, in order to maintain higher levels of job satisfaction.

Overall findings in the factor analysis

Item 4, *"The nursing goals of this hospital administration are unclear to me"*, had factor loadings less than .30 on all three factors. Some participants indicated that they were unclear as to the meaning of this question, which suggests that the question may no longer be relevant.

Comparison with Ng's (1993) study

A comparison of the means and standard deviations for both the present study and Ng's (1993) study are presented in Table 4. The pattern of the means for both studies is similar. In general, the means for the present study are lower than those in Ng's study, suggesting an overall pattern of higher job satisfaction. In an informal comparison, only four items in the present study have higher means than those in Ng's study, these items were 1, 2, 4, and 18. Caution must be taken when comparing the means of the two studies. The sample size and make up in each study is very different, therefore only patterns should be compared. In Ng's study registered nurses in a variety of healthcare settings from all over New Zealand (N = 1249) were surveyed, whereas in the present study only registered nurses within Green Lane Hospital, a major specialty public hospital in Auckland, were surveyed (N = 123).

Interestingly in both studies, the means for the items grouped under Ng's (1993) factor labelled "Administration", show a trend of being higher than most other means among the 24 items. This suggests that nurses' level of satisfaction with hospital and nursing administration has continued to be lower than for most other factors contributing to job satisfaction. It is difficult to speculate whether the reasons behind this lowered satisfaction with administration is similar in both studies, further studies would need to be carried out to ascertain this. The second greatest dissatisfaction for nurses in both studies seems to be with Nursing Education. Comparison of means suggest that within each of Ng's factors, the single item of most dissatisfaction (high scores) is identical to the question in the grouping which received the most negative score in the present study. It is interesting to note that the variance in both sets of data is similar. This suggests that nurses opinions are no more variable now that they were in 1988 when Ng's study was conducted.

Table 4

Comparison of Means and Standard Deviations Between Ng's (1993) Study and the Present Study

Factor/Item	Ng's (1993) study		Present study	
	Mean	*SD*	Mean	*SD*
Administration				
1. Administration supports nurses	4.18	1.88	4.58	1.34
2. Administration care about nurses	4.38	1.86	4.81	1.36
3. Administration consults nurses	4.32	1.94	4.30	1.69
4. Nursing goals of administration	4.12	1.91	4.33	1.88
Co-worker				
5. Help one another	2.14	1.49	1.81	1.22
6. Accept one another as colleagues	2.00	1.33	1.75	1.19
7. Petty quarrelling	3.75	2.00	2.73	1.73
8. Incompetence	3.16	1.87	2.57	1.67
Career				
9. Professional development	3.37	1.88	2.77	1.79
10. Dead-end job	2.52	1.88	2.47	1.77
11. Promotion	4.24	1.74	3.56	1.69
Patient care				
12. Patient care	3.94	1.89	3.32	1.85
13. Professional judgement	3.45	1.90	2.79	1.74
14. Patient needs	3.04	1.91	2.75	1.81
Relationship with supervisor				
15. Close supervision	2.37	1.57	2.14	1.60
16. Requests for leave	1.79	1.19	1.91	1.46
17. Staff rostering	3.16	2.04	2.55	1.91
18. Working relationship	2.02	1.33	2.31	1.55
Nursing education				
19. Courses and seminars	4.32	1.91	3.90	2.02
20. Orientation programme	3.91	1.96	3.27	1.97
21. Inservice training	3.90	2.01	3.39	2.00
Communication				
22. Appreciation by patients	2.37	1.39	2.08	1.24
23. Communication with patients	2.18	1.26	2.10	1.27
24. Understanding by doctors	2.87	1.55	2.81	1.66

Note: The grouping of items under the factors as per Ng (1993) factor solution. The higher the mean score, the lower the level of satisfaction for that item.

Communication

Items 5, 6, and 16 ("Help one another"; "Accept one another as colleagues"; and "Requests for leave") contributing to the Communication factor in the present study, produced high satisfaction on both Ng's, and the present administrations of the questionnaire.

Career Development

Apart from questions 4 ("Nursing goals of administration") and 10 ("Dead-end job"), Career Development factor is precisely an amalgam of Ng's (1993) Administration, Career, and Nursing Education factors.

Since Ng's (1993) study, there has been a greater "push" for nurses to upskill and attain higher qualifications above their registration. With the advent of under-graduate degree programmes replacing diplomas, which were the basic requirement for registration, nurses can enter Master degree programmes in nursing more readily. Promotion to most senior nursing positions now requires a minimum of a Master's degree in nursing. Accessibility to higher education has been made easier, by virtue of Bachelor's degrees being offered as a means to registration, and through hospital administration supporting nurses financially (and in some hospitals, through time allocation also). Higher qualifications enable nurses to attain higher levels on the nursing hierarchy (promotion). Doctoral studies in nursing are also more prevalent since Ng's study.

Since the late 1980's, a new structure for staff nurses within hospitals has been introduced. This structure places staff nurses at different levels depending upon their competence within the area of nursing in which they work. In the hospital used for this research there are four levels of staff nurses. Level one is the most basic, predominantly for beginning practitioners, and staff nurses new to a specific area of nursing. Level

four is awarded to those most experienced and competent staff nurses, and is seen as the most senior level. "Levelling" is a competency-based structure with set criteria for staff nurses to meet before they can attain a higher level. In general, pay increases as higher levels are achieved. This new structure provides a system of promotion within staff nurse ranks with greater scope and more levels, superseding the traditional "junior" and "senior" staff nurse levels. This change could account for the greater satisfaction towards item 11 ("Promotion") compared with Ng's earlier study, particularly since the large majority of research participants (n = 82.8%) were holding staff nurse positions.

Items on Ng's (1993) "Nursing education" factor (items 19, 20 and 21), contributed strongly to the "Career Development" factor in the present study. Since adequate orientation programmes, inservice training and attendance at courses and seminars relevant to nurses' specialty area are essential to maintain professional competence through updated knowledge and skills, it seems that these items appropriately fit within this factor. Means for each of these three items suggest higher satisfaction on all accounts in the present study. This supports the fact that in the current nursing environment, individuals are expected to expand their knowledge and skill base.

Autonomy

Items 12, 13, and 14, contributed to Ng's (1993) factor "Patent care". Means, in the present study suggest somewhat higher satisfaction on the three items outlined above, than in Ng's study. This may reflect a move to greater responsibility and accountability in nursing practice over the last ten years.

Items 7 and 8, *"Nursing personnel on my unit do a lot of petty quarrelling"* and *"I find I have to work harder at my job than I should because of the incompetence of the people I work with"* also suggest greater satisfaction

currently, compared with Ng's (1993) study. Again this may reflect the expectation of a greater degree of responsibility and accountability. Further, given the current shortage of nurses, it may be that lack of time may act as a restraint to petty quarrelling. Nurses' greater satisfaction with the competence of those they work with may be a direct result of the increase in the ratio of registered to enrolled nurses. In 1988, the number of enrolled nurses employed was far greater than at present. This does not imply that enrolled nurses are necessarily less competent than registered nurses, but by law they cannot perform a variety of nursing procedures. Competence could be perceived as an ability to carry out all nursing procedures.

Objective Two: Gender differences in nurses' job satisfaction

Only a small sample of males (n = 12) responded to the questionnaire in comparison with females (n = 111). One of the male respondents answered too few questions to be included in the analysis. However, a disparity in the numbers of male and female nurses means that data on gender difference in nurses' job satisfaction is sparse and likely to remain so. Therefore it is worthwhile to attempt to explore the data for some preliminary clues to differences that might exist.

Analysis showed that there was a significant difference between the males and females in their responses to questions contributing to factor one (Communication). Males were significantly less satisfied with the communication and collegial aspects of their work than females. However, it may not be appropriate to generalise the findings beyond the sample, as the sample size is too small to justify this. Nevertheless, some reasons that might lead to just such a difference are discussed below.

Females and males in general have different patterns of communication therefore the difference in their responses may not be surprising. Holmes (1997) writes, "Women and men use language differently and there are frequent examples of small, and sometimes undiagnosed, miscommunications in the everyday interactions between the sexes" (p. 51). Men, Holmes maintains, have a tendency toward referential meaning in communication, and engage in conversational exchanges which are primarily concerned with passing on information. By contrast, women tend toward affective meaning, in which conversation is concerned with feelings and relationships between participants. Holmes recommends that men converse similarly to women, and that women should avoid male patterns of communication. It is generally acknowledged that men and women have different styles and patterns of communicating. In nursing, a female dominated occupation, men may well find communication frustrating, since the affective type of conversation will be predominant. This could account for the greater dissatisfaction that the males in this research indicated in their responses to questions in the Communication factor.

Interestingly, item 5 (refer Table 3), *"The nurses on my unit don't hesitate to pitch in and help one another out when things get in a rush"*, has means which are closer in value for males and females, than for any other item in this factor. This is indicative of a feeling of team spirit, particularly when job demands increase. By contrast, for item 6, *"Even though our basic training may differ, the nurses on my unit accept one another as colleagues"*, females appear to feel a greater level of acceptance by their colleagues than men. The standard deviation for item 6 is small for the women compared to the men, indicating that the means for women are more representative than for the men. Item 16, *"My requests for leave are fairly handled without personal bias"* shows the greatest difference in mean values between the genders. Interestingly, the standard deviation for this item, also, implies a lack of variance for females compared with

their male colleagues. The males surveyed obviously felt greater personal bias and dissatisfaction with how their requests for leave were handled. This male perception of personal bias may be attributed to minority discrimination. It may be real or perceived discrimination, however it is a phenomenon well reported in organisations which have a gender dominance, usually male dominance. Males in nursing, fit into Kanter's (1977) group of "tokens".

Analysis uncovered no differences between males and females for Career Development, however a small sample size may influence for this. This factor encompasses questions which pertain to on-going education. The male participants generally tended to be less satisfied with on-going education than females. Literature reviewed in Chapter One, examining the relationship between nurses' education and job satisfaction, revealed that job dissatisfaction increased as nurses gain higher qualifications. Examination of the mean of raw scores for the 24 questions for each of the males and the females in this sub-group, did not provide a clear picture of whether those participants with higher educational qualifications had greater job satisfaction on the whole

The mean for item 11, *"Nurses I know who do well on the job stand a fair chance of being promoted"* tended to be lower for the males, suggesting higher satisfaction, than for the females. This supports the findings of Gaze (1987), who maintains that male nurses are encouraged, therefore, gain greater confidence to apply for more senior nursing roles. As illustrated in Figure 1, both nationally and internationally there are disproportionate numbers of males in senior nurse manager roles.

The means for both male and female respondents on item 2, *"There is no doubt that this hospital administration care a good deal about the welfare of nurses"*, were identical, however, the standard deviation for females indicated a lack of variance compared with the males.

Although there was no significant difference between males and females with respect to the third factor, Autonomy, there may be a tendency for males to experience lower satisfaction than for the females on all items, except for question 15, *"I feel that I am supervised more closely than I need to be"*. Males in this study, possibly, have greater satisfaction with the amount of supervision they receive. However, as indicated by the overall mean for this factor, males have greater dissatisfaction with issues contributing to autonomy. Given the continuing debate regarding the need to keep men in nursing, employers should address this concern. This is in line with Barrett and Myrick's (1998) suggestion that dissatisfaction is the main reason why nurses leave their positions, and that lack of autonomy is one of the main contributing factors to job dissatisfaction.

Objective Three: Effect of other demographic and employment characteristics

The analyses of questionnaire responses in terms of the demographic variables age, marital status, years of experience in nursing, qualifications, and employment status (part-time/full-time) produced no significant effects of any of these variables on responses to the job satisfaction questionnaire. The international studies of nurses' job satisfaction reviewed in Chapter One, suggested that age, marital status, years of experience, and higher educational qualifications can influence levels of job satisfaction, either positively or negatively. The relatively small numbers of some groups, and the unequal group sizes, have made any small effects difficult to detect.

Age

The findings of Blegan (1993), Coward et al. (1995), and Hamilton and Wright (1986), suggest that older nurses tend to be more satisfied in their jobs. How "older" nurses is defined is unclear in some of the studies, however the mean age in the study by Coward et al. is 47.2 years. Participants in the present study were asked to nominate the range in which their age fell, and the modal response to this question was 26 – 30 years. Thus participants in this study appear to be significantly younger than those in Coward et al's. Perhaps this comparatively younger sample of nurses partially accounted for the lack of effect of age on job satisfaction.

Marital Status

Various studies outlined in the Introduction support the view that having a spouse or partner increases levels of job satisfaction. A suggested explanation for this is that issues related to one's job can be shared with another adult on neutral territory. Praise for the positive aspects of the job and support for the negative aspects can be provided, both of which help in enhancing job satisfaction.

Children within marriage or relationships can also influence an individual's job satisfaction. Although Adams, King and King (1996) suggest that family can give a worker high levels of life satisfaction, it can in turn, influence job satisfaction either positively or negatively. Emotional well-being within an individual's personal life, may extend into work, however the converse can occur if a worker experiences conflict between the commitments of home and work.

The fact that no significant effect was found between marital status and job satisfaction in the present study could be due to other influences

within home environment, such as children or elderly dependent parents. Information about participants' family situation was not surveyed therefore no conclusions can be drawn about the effects of different family combinations.

Years of experience in nursing

The current research did not replicate the findings of Dear, Weissman, Minander and Chase (1982) and Matrunola (1996). Whereas the latter study suggested that nurses with more years of experience have higher levels of satisfaction with their current position, the present study found no significant effect of experience on satisfaction. It is possible that the contrasting findings reflect differences in the type of hospital in which the nurses surveyed were employed. For a nurse to seek employment in Green Lane hospital, it is assumed that she or he has made a conscious decision to follow a nursing career in the clinical specialties offered by the hospital. Job satisfaction for newly graduated nurses employed at Green Lane hospital maybe as a result of facing a new challenge in the development of knowledge and skills in a chosen specialty. For those nurses who have been employed in the hospital for more than ten years, job satisfaction may result from confidence with the knowledge and skills attained over the period of employment, and the ability to take on a mentoring role for those less experienced nurses.

This concept of choosing a specialty area of nursing which especially interests an individual is in line with theories of satisfaction that stress the effect of 'goodness of fit' (Cavanagh, 1992b; Hackman & Oldham, 1980). If individuals are matched with their jobs, their performance will be high because they will find the work satisfying and rewarding, and will be more likely to practice in their chosen specialty. Medcof and Wegener (1992) examined this concept in more detail and found that nurses who are high achievers are better matched with non-routine work. The

implications for nursing administration are that increased job satisfaction through appropriate worker-work matching, would decrease absenteeism and staff turnover. This would be hugely beneficial in the current national and international nursing shortage crisis.

Qualifications

Blegan (1993), Cavanagh (1992b), and Price and Mueller (1981) suggest that nurses' job dissatisfaction increases as higher educational qualifications are gained, primarily because their educational advancement is not reflected in their nursing role. This is not so within Green Lane hospital, where medical and surgical advancements are on-going. These advancements affect nurses by the increased expectations that medical staff have of nurses to keep up to date, both practically and theoretically. This need for continued knowledge and skill updating provides nurses in Green Lane Hospital with the challenge that many other nurses find through studying towards other more general qualifications. This is not to say that nurses in this research do not continue their nursing studies through external organisations such as universities.

Price and Mueller (1981) maintain that if hospital employers do not encourage nurses to use of new skills and knowledge, then there is the potential that nurses' job satisfaction levels could decrease. For those nurses who participated in this research, there is an expectation that their new found theory and practical skills are used, which in turn should help maintain higher levels of individual jobs satisfaction. This alone could account for the non-significant effect of qualifications on participants' responses to the questionnaire. No matter what formal qualifications these nurses have, they all work on a similarly levelled playing field, in that they are all updating their knowledge and skill base for the specific area of nursing in which they work, at a similar rate.

To understand the complexity that qualifications have on nurses job satisfaction, further specific research on this needs to be carried out.

Employment Status

Jansen et al. (1996), suggested that nurses employed for longer hours were less satisfied with their work. This was not the case for the nurses surveyed here.

Nurses choose either full- or part-time employment for a variety of reasons. Many prefer full-time work for financial reasons. For many nurses who choose part-time employment, the choice is dictated by other life commitments such as children, dependent elderly parents or other work outside their main employment. For some the choice is a life-style choice, to allow more leisure time to give them a balance of life activities.

Interestingly, none of the males (n = 11) surveyed were employed part-time. Of the females surveyed 42.5% (n = 45) were employed part-time, working 27.4 hours per week on average. This difference is not unusual, as many women in the workforce balance part-time employment with motherhood and household management. It would be worthwhile in future to ascertain whether an ability to work full-time increases the prospects of promotion, thereby decreasing the eligibility of some female nurses to move up the nursing hierarchy.

Chapter Five

CONCLUSION

Conclusions of the study

The overall aim of this research was to explore nurses' job satisfaction within a major New Zealand public hospital.

As expected, a comparison between the present research and Ng's research of 1988 revealed some changes in the pattern of nurses' job satisfaction. In Ng's study, seven interpretable factors resulted from a factor analysis, and were labelled Administration, Co-workers, Patient Care, Relationship with Supervisor, Career [prospects], Nursing education, and Communication. In the present study, only three interpretable factors were produced. These factors were labelled Communication, Career Development, and Autonomy.

Some differences might be expected given that this was single hospital study. Others may be a consequence of the Health Reforms which occurred during the 1990's. One of the major changes that these reforms brought about was to the management structure of public hospitals. Whereas, prior to the reforms, management tended to be a hierarchy of medical and nursing personnel, post reform sees a management structure primarily made up of individuals with a management background, and who are commonly not health professionals. The effect on nurses was marked. Whereas traditionally nurses were promoted up the nursing hierarchy primarily on seniority, now nurses are promoted on merit of management ability. For those occupying nursing management positions, provision is made for further management training. Better nursing management knowledge and skills is seemingly reflected in the present study's analysis of nurses' job satisfaction.

Communication and career development remain issues in nurses' job satisfaction, however the aspects of job satisfaction identified by Ng (1993) such as administration (both hospital and nursing), relationships with supervisors and co-workers, and patient care were found, in this study to contribute to all three factors.

Overall, the mean responses to questionnaire items in the present study suggest higher levels of job satisfaction among staff currently employed at Green Lane Hospital than among those nurses who responded to the New Zealand-wide survey conducted by Ng.

Of the three factors extracted in the present study, Career Development obtained the most negative responses. Conversely, the communication factor revealed the highest levels of satisfaction.

In the present study, analysis of matched pairs of males (n = 11) and females (n = 11) uncovered a gender difference in responses to items contributing the Communication factor, but not in items contributing to the Career Development and Autonomy factors. This is not surprising given that males and females tend to have different patterns of communication. As males are the minority gender in nursing, it seems reasonable to expect that they would find a predominant female communication style less satisfying, particularly at work. Overall, however, there was a non-significant trend for males to give higher ratings than females, suggesting that females experienced greater job satisfaction overall.

The influences of other demographic and employment characteristics were explored. These were age, marital status, years of experience in nursing, qualifications, and employment status. None of these characteristics were found to have a significant effect on responses to the job satisfaction questionnaire. This was contrary to other international

studies that found all of these characteristics had an effect on nurses' job satisfaction. No comparable New Zealand studies of nurses' job satisfaction were found, which examined these effects.

Recommendations to the hospital involved in the research

The following recommendations are provided for the hospital used in the research and are born out of the findings of the analysis.

It is recommended that:

1. Nursing management examine the current orientation programmes, inservice training, and courses and seminars offered to nursing staff to ascertain whether this education provision is meeting the expectations and/or needs of nurses. If it is not, then it would be useful to establish a needs analysis, to identify areas of knowledge and skill that nursing staff wish to update, and make provision for such.

2. Nursing management consider an affiliation with an educational institute to provide programmes and experiences for all personnel which would help build up self-confidence, self-esteem, and leadership skills. This may also help meet the needs identified above.

3. Hospital management evaluates nurses' attitudes toward the support, back up, and care provided by management. In the process, nurses' opinions should be canvassed on ways to improve consultation between hospital and nursing management, and between charge nurses and their staff on day to day problems and procedures.

4. Nurse managers recognise that male nurses are the minority gender and take steps to establish mechanisms, which promote inclusive behaviour by all nursing staff toward male nurses. The first step in this process should be to carry out a needs analysis of all males nurses in this hospital, to establish the appropriate inclusive behaviour.

5. Nursing management be mindful that increased job satisfaction occurs through appropriate worker-work matching, therefore during the selection process for nursing staff, criteria for selection be carefully established to ensure, as far as possible, the "best-fit" for the vacancy.

6. Nursing management recognise that given the complexity of job satisfaction, there is no "cure-all" solution, and that measures to improve job satisfaction may be costly. However, the cost of improving nurses' job satisfaction needs to be balanced against the high costs of staff turnover.

One contributing factor to job dissatisfaction among nurses, which is widely discussed in literature, is job stress. Although job stress of nurses was not specifically examined in the present study, it is recommended that hospital management could consider three actions in order to assist nurses and other hospital workers who experience job stress:

7. Free counselling services available to all staff.

8. Training of supervisors to recognise stress in staff members, particularly during times of high work loads.

9. Supervisors to recommend leave for staff if they show early (or later) signs of stress.

Limitations of this study

The limitations of this study primarily relate to the sample size ($N = 118$). The sample size and single institution composition places limitations on the generalisability of the study.

Comparisons have been drawn with Ng's (1993) study however it must be born in mind that Ng's sample was much larger ($N = 1249$), and participants were from 20 different hospitals/area health boards.

Gender differences in nurses' job satisfaction were analysed, however only broad conclusions could be drawn from the findings. Only twelve of the thirty-one male nurses employed in the hospital chose to participate in the research, and one male failed to complete a number of questions therefore his questionnaire was omitted from the analysis. Given the few male participants, analysis was restricted to being descriptive only.

Future research considerations

The present research findings provide further information about New Zealand nurses' job satisfaction. However, given the limitations of the study, a number of future research considerations become obvious.

Firstly, since the findings in this study should not be generalised across nursing in New Zealand, examination of nurses' job satisfaction using a larger sample of nurses in a variety of healthcare settings from other centres, both urban and rural, would provide a better understanding of the construct. Healthcare settings to be surveyed should include community, mental health, general public hospitals, specialty hospitals, private hospitals, and gerontology. Nurses' job satisfaction could be analysed both across and within settings, to provide information about differences in job satisfaction within different nursing environments.

Other variables of job satisfaction could be examined, such as pay and rewards, recognition of good performance, and working conditions. It is recommended that demographic and employment characteristics examined in the present study also be included in future research of nurses' job satisfaction. A more detailed questionnaire examining the effect of the different demographic and employment characteristics on nurses' job satisfaction, could reveal findings which may assist employers to understand their role in improving nurses' job satisfaction. For example, whether full- or part-time employment has a significant effect on job satisfaction and whether it differs for males and females.

Perhaps one of the major foci of any future study could be gender differences in nurses' job satisfaction. This is a particularly exciting phenomenon to explore, especially since more males are now entering the nursing profession. It is the belief of the author that men in nursing need to be nurtured, particularly since they are in a minority. Improved job satisfaction of all nurses, but particularly of males is the key to retention within the profession. Studies of gender differences in nurses' job satisfaction would be ground breaking research both nationally and internationally.

REFERENCES

Abraham, J. D., & Hansson, R. O. (1996). Gender differences in the usefulness of goal-directed coping for middle-aged and older workers. *Journal of Applied Social Psychology, 26,* 657-669.

Abramis, D. J. (1994). Work role ambiguity, job satisfaction and job performance: Meta-analysis and review. *Psychological Reports, 75,* 1411-1433.

Acorn, S. Ratner, P. A., & Crawford, M. (1997). Decentralization as a determinant of autonomy, job satisfaction, and organizational commitment among nurse managers. *Nursing Research, 46,* 52-57.

Adams, G. A., King, L. A. & King, D. W. (1996). Relationships of job and family involvement, family social support, and work-family conflict with job and life satisfaction. *Journal of Applied Psychology, 81,* 411-420.

Adams, J. S. (1965). Inequity in social exchange. In L. Berkowitz (Ed.), *Advances in experimental social psychology,* Vol. 2. (pp. 43-58). New York: Academic Press.

Agho, A. O. (1993). The moderating effects of dispositional affectivity on relationships between job characteristic and nurses' job satisfaction. *Research in Nursing & Health, 16,* 451-458.

Antonucci, T. C., & Akiyama, H. (1987). An examination of sex differences in social support among older men and women. *Sex Roles, 17,* 737-749.

Austin, R. (1977a). Sex and gender in the future of nursing, 1. *Nursing Times, 73*, 113-116.

Austin, R. (1977b). Sex and gender in the future of nursing, 2. *Nursing Times, 73*, 117-119.

Barrett, C. & Myrick, F. (1998). Job satisfaction in preceptorship and its effect on the clinical performance of the preceptee. *Journal of Advanced Nursing, 27*, 364-371.

Beehr, T. A., & McGrath, J. E. (1992). Social support, occupational stress and anxiety. *Stress and Coping, 5*, 7-19.

Benner, P., & Wrubel, J. (1989). *The primacy of caring: Stress and coping in health and illness*. Reading, MA: Addison-Wesley.

Bergmann, T. J., Grahn, J., Hannaford, W. J., & Wenner, J. F. (1996). Presence and perceived attitudes of other family members in the home as they relate to employees' job satisfaction. *Psychological Reports, 79*, 151-160.

Berry, L. M., & Houston, J. P. (1993). *Psychology at work*. Dubuque, IA: WCB Brown & Benchmark.

Bielby, W. T., & Baron, J. N. (1986). Men and women at work: Sex segregation and statistical discrimination. *American Journal of Sociology, 91*, 759-799.

Blegan, M. A. (1993). Nurses' job satisfaction: A meta-analysis of related variables. *Nursing Research, 42*, 36-41.

Blegan, M. A., Goode, C. J., Johnson, M., Mass, M., McCloskey, J. C., & Moorhead, S. A. (1992). Recognizing staff nurses job performance and achievements. *Research in Nursing & Health, 15,* 57-66.

Blegan, M. A., & Mueller, C. W. (1987). Nurses' job satisfaction: A longitudinal analysis. *Research in Nursing & Health, 10,* 227-237.

Bokemeier, J. L., & Lacy, W. B. (1986). Job values, rewards, and work conditions as factors in job satisfaction among men and women. *The Sociological Quarterly, 28,* 189-204.

Brayfield, A.A., & Rothe, H.F. (1951). An index of job satisfaction. *Journal of Applied Psychology, 35,* 307-311.

Buchner, A., Erdfelder, E., & Faul, F. (1997). *How to use G*Power.* Retrieved November 17, 1999 from the World Wide Web: http://www.psychologie.uni-trier.de:8000/gpower.html.

Burke, R. J. (1996). Sources of job satisfaction among employees of a professional services firm. *Psychological Reports, 78,* 1231-1243.

Burke, R. J., & McKeen, C. A. (1996). Do women at the top make a difference? Gender proportions and the experiences of managerial and professional women. *Human Relations, 49,* 1093-1104.

Burton, E. C., & Burton, D. T. (1982). Job expectations of senior nursing students. *Journal of Nursing Administration, 12*(3), 11-17.

Butler, J. & Parsons, R. J. (1989). Hospital perceptions of job satisfaction. *Nursing Management, 20*(8), 45-48.

Butler, J. K., Jr. & Cantrell, R. S. (1997). Effects of perceived leadership behaviours on job satisfaction and productivity. *Psychological Reports, 80*, 976-978.

Campbell, J. P., Dunnette, M. D., Lawler, E. E., & Weick, K. E. (1970). *Management behavior, performance and effectiveness.* New York: McGraw-Hill.

Carpenter, M. (1977). The new managerialism and professionalism in nursing. In M. Stacey & M. Reid (Eds.), *Health and the division of labour* (pp. 165-193). London: Croom Helm.

Cavanagh, S. J. (1989). Nursing turnover: Literature review and methodological critique. *Journal of Advanced Nursing, 14*, 587-596.

Cavanagh, S. J. (1990). Predictors of nursing staff turnover. *Journal of Advanced Nursing, 15*, 373-380.

Cavanagh, S. J. (1992a). Aiming for job satisfaction. *Senior Nurse, 12*(2), 13-16.

Cavanagh, S. J. (1992b). Job satisfaction of nursing staff working in hospitals. *Journal of Advanced Nursing, 17*, 704-711.

Cavanagh, S. J., & Coffin, D. A. (1992). Staff turnover among hospital nurses. *Journal of Advanced Nursing, 17*, 1369-1376.

Ceslowitz, S. B. (1989). Burnout and coping strategies among hospital staff nurses. *Journal of Advanced Nursing, 14*, 553-557.

Cohen, J. (1992). A power primer. *Psychological Bulletin, 112*, 155-159.

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98*, 310-357.

Cohen-Mansfield, J., & Rosenthal, A. S. (1989). Absenteeism of staff in a nursing home. *International Journal of Nursing Studies, 26*(2), 187-194.

Coward, R. T., Hogan, T. L., Duncan, R. P., Horne, C. H., Hilker, M. A., & Felsen, L. M. (1995). Job satisfaction of nurses employed in rural and urban long-term care facilities. *Research in Nursing & Health, 18*, 271-284.

Cox, T. (1993). *Cultural diversity in organizations*. San Francisco, CA: Berrett-Koehler Publishers.

Cranny, C. J., Smith, P. C., & Stone, E. E. (1992). *Job satisfaction: Advances in research and application*. Lexington, MA: Lexington Books.

Cromie, S. (1981). Women as managers in Northern Ireland. *Journal of Occupational Psychology, 54*, 87-91.

Cronbach, L. J. (1960). *Essential of psychological testing*. New York: Harper.

Crosby, F. J., Golding, J., & Resnick, A. (1983). Discontent among male lawyers, female lawyers, and female legal secretaries. *Journal of Applied Social Psychology, 13*, 183-190.

Culkin, J., Tricario, D., & Cohen, F. (1987). Sex role orientation of nursing students at a community college. *Psychological Reports, 60*, 948-950.

Cumbey, D. A., & Alexander, J. W. (1998). The relationship of job satisfaction with organizational variables in public health nursing. *Journal of Nursing Administration, 28*(5), 39-46.

D'Arcy, C., Syrotuik, J., & Siddique, C. M. (1984). Performance attributes, job satisfaction, and psychological distress: A comparison of working men and women. *Human Relations, 37*, 603-611.

Davy, J. A., Kinicki, A. J., & Scheck, C. L. (1997). A test of job security's direct and mediated effects on withdrawal cognitions. *Journal of Organizational Behavior, 18*, 323-349.

Dear, M. R., Weissman, D. S., Minander, C. S., & Chase, G. A. (1982). The effects of the intensive care nursing role on job satisfaction and turnover. *Heart and Living 11*, 560-565.

Decker, F. H. (1985). Socialization and interpersonal environment in nurses' affective reactions to work. *Social Science and Medicine, 20*, 499-509.

De Jonge, J., van Breukelen, G. J. P., Landeweerd, J. A., & Nijhuis, F. J. N. (1999). Comparing group and individual level assessments of job characteristics in testing the job demand-control model: A multilevel approach. *Human Relations, 52*, 95-122.

Dessler, G. (1997). *Human resource management.* (7th ed.) London: Prentice-Hall International.

Dewe, P. J. (1989). Stressor frequency, tension, tiredness and coping: Some management issues and a comparison across nursing groups. *Journal of Advanced Nursing, 14,* 308-320.

Dingwall, R. (1972). Nursing: Towards a male dominated occupation? *Nursing Times, 68*, 1294-1295.

Dodd-McCue, D., & Wright, G. B. (1996). Men, women, and attitudinal commitment: The effects of workplace experiences and socialization. *Human Relations, 49*, 1065-1091.

Dolan, N. (1987). The relationship between burnout and job satisfaction in nurses. *Journal of Advanced Nursing, 12*, 3-12.

Dunkin, J., Juhl, N., Stratton, T., Geller, J. M., & Ludtke, R. (1992). Job satisfaction and retention of rural community health nurses in North Dakota. *Journal of Rural Health, 8*, 268-275.

Dwyer, D. J., Schwartz, R. H., & Fox, M. L. (1992). Decision-making autonomy in nursing. *Journal of Nursing Administration, 22*(2), 17-23.

Epstein, C. F. (1987). Multiple demands and successful roles: The conditions of successful management. In J. Crosby (Ed.), *Spouse, parent, worker, on gender and multiple roles* (pp. 23-25). New Haven, CT: Yale University Press.

Fenton-O'Creevy, M. (1995). Moderators of differences in job satisfaction between full-time and part-time employees: A research note. *Human Resource Management Journal, 5*, 75-81.

Fields, D. L., & Blum, T. C. (1997). Employee satisfaction in work groups with different gender composition. *Journal of Organizational Behavior, 18*, 181-196.

Fields, D. L., & Wolff, E. N. (1991). The decline of sex segregation and the wage gap 1970-80. *Journal of Human Resources, 26*(4), 608-622.

Fry, L. W., & Greenfield, S. (1980). An examination of attitudinal differences between policewomen and policemen. *Journal of Applied Psychology, 65*, 123-126.

Gaertner, K. (1984). Work satisfaction and family responsibility correlates of employment among nurses. *Work and Occupations, 11*, 439-459.

Gaze, H. (1987). Man appeal. *Nursing Times, 83*, 24-27.

Gillies, D. A., Foreman, M., & Pettengill, M. M. (1996). Satisfaction of nurse managers in long-term care. *Journal of Gerontological Nursing 22*(4), 33-40.

Gilloran, A. (1995). Gender differences in care delivery and supervisory relationship: The case of psychogeriatric nursing. *Journal of Advanced Nursing, 21*, 652-658.

Gilloran, A., McKinley, A., McClew, T., McKee, K., & Robertson, A. (1994). Staff nurses' work satisfaction in psychogeriatric wards. *Journal of Advanced Nursing, 20*, 997-1003.

Goh, C. T., Koh, H. C., & Low, C. K. (1991). Gender effects on the job satisfaction of accountants in Singapore. *Work & Stress, 5*, 341-348.

Golding, J., Resnick, A., & Crosby, F. (1983). Work satisfaction as a function of gender and job status. *Psychology of Women Quarterly, 7*, 286-290.

Goodell, T. T., & Van Ess Coeling, H. (1994). Outcomes of nurses' job satisfaction. *Journal of Nursing Administration, 24*(11), 36-41.

Grant, G., Nolan, M., Maguire, B., & Melhuish, E. (1994). Factors influencing job satisfaction among nurses. *British Journal of Nursing, 3*(12), 616-620.

Gray, D. E.(1989). Gender and organizational commitment among hospital nurses. *Human Relations, 42,* 801-813.

Greeneich, D. (1993). The link between new and return business and quality of care: Patient satisfaction. *Advanced Nursing Studies, 16,* 62-72.

Gregson, T. (1987). Factor analysis of a multiple-choice format for job satisfaction. *Psychological Reports, 61,* 747-750.

Guppy, A., & Gutteridge, T. (1991). Job satisfaction and occupational stress in UK general hospital nursing staff. *Work & Stress, 5*, 315-323.

Guppy, A., & Rick, J. (1996). The influences of gender and grade on perceived work stress and job satisfaction in white collar employees. *Work & Stress, 10*, 154-164.

Gurney, C. A. Mueller, C. W., & Price, J. L. (1997). Job satisfaction and organizational attachment of nurses holding doctoral degrees. *Nursing Research, 46*(3), 163-171.

Hackman, J. R. & Oldham, G. R. (1975). Development of the job diagnostic survey. *Journal of Applied Psychology, 60*, 159-170.

Hackman, J. R. & Oldham, G. R. (1980). Work redesign. Reading, MA: Addison-Wesley.

Hale, C. (1986). Measuring job satisfaction. *Nursing Times, 82*, 43-46.

Hamilton, R. F., & Wright, J. D. (1986). *The state of the masses.* Hawthorne, NY: Aldine.

Harriman, A. (1985). *Women/men/management.* New York: Praeger.

Henry, B. (1992). Leadership, nurses, and patient satisfaction: A pilot study. *Nursing Administration Quarterly, 16*(3), 72-74.

Herzberg, F. (1966). *Work and the nature of man.* New York: World Publishing.

Herzberg, F, Mausner, B., & Synderman, B. J. (1959). *The motivation to work.* New York: J. Wiley & sons.

Higgins, C. A., Duxbury, L. E., & Irving, R. H. (1992). Work-family conflict in the dual-career family. *Organizational Behavior and Human Decision, 51*, 51-75.

Hinshaw, A. S., Smeltzer, C. H., & Atwood, J. R. (1987). Innovative retention strategies for nursing staff. *Journal of Nursing Administration, 17*(6), 8-16.

Hodson, R. (1989). Gender differences in job satisfaction: Why aren't women more dissatisfied? *Sociological Quarterly, 30*, 385-399.

Hodson, R. (1991). Worplace behaviors. *Work and Occupations, 18,* 271-290.

Holmes, J. (1997). Communicating across the sex barrier. In F. X. Sligo, S. Olsson, & C. Wallace (Eds.), *Perspectives in business communication* (pp. 51-65). Palmerston North, NZ: Software Technology New Zealand Ltd.

Hunt, M. (1991). Who flies highest? *Nursing Times, 87*, 29-31.

Inkson, K., & Kolb, D. (1998). *Management: Perspectives for New Zealand.* (2nd ed.). Auckland, New Zealand: Addison Wesley Longman.

Irvine, D. M., & Evans, M. G. (1995). Job satisfaction and turnover among nurses: Integrating research findings across studies. *Nursing Research, 44*, 246-253.

Jain, V. K., Lall, R., McLaughlin, D. G., & Johnson, W. B. (1996). Effects of locus of control, occupational stress, and psychological distress on job satisfaction among nurses. *Psychological Reports, 78*, 1256-1258.

Jansen, P. G. M., Kerkstra, A., Abu-Saad, H. H., & van der Zee, J. (1996). The effects of job characteristics and individual characteristics on job satisfaction and burnout in community nursing. *International Journal of Nursing Studies, 33*(4), 407-421.

Jenkins, S. R., & Maslach, C. (1994). Psychological health and involvement in interpersonally demanding occupations: A longitudinal perspective. *Journal of Organizational Behavior, 15*(2), 101-127.

Jennings, B. M. (1990). Stress, locus of control, social support, and psychological symptoms among head nurses. *Research in Nursing & Health, 13*, 393-401.

Jolley, M. (1989). The professionalisation of nursing: The uncertain path. In M. Jolley & P. Allen (Eds.), *Current issues in nursing* (pp. 1-21). London: Chapman Hall.

Jolma, D. J. (1990). Relationship between nursing work load and turnover. *Nursing Economic$, 8*, 110-114.

Judge, T. A., Cable, D. M., Boudreau, J. W., & Bretz, R. D. (1995). An empirical investigation of the predictors of executive career success. *Personnel Psychology, 48*(3), 485-519.

Kangas, S., Kee, C. C., & McKee-Waddle, R. (1999). Organizational factors, nurses' job satisfaction, and patient satisfaction with nursing care. *Journal of Nursing Administration, 29*(1), 32-42.

Kanter, R. M. (1977). *Men and women of the corporation.* New York: Basic Books.

Keane, A., Ducette, J., & Adler, D. (1985). Stress in ICU and non-ICU nurses. *Nursing Research, 34*, 231-236.

Kirchmeyer, C. (1995). Demographic similarity to the work group: A longitudinal study of managers at the early career stage. *Journal of Organizational Behavior, 16,* 67-83.

Knoop, R. (1995a). Influence of participative decision-making on job satisfaction and organizational commitment of school principals. *Psychological Reports, 76*, 379-382.

Knoop, R. (1995b). Relationships among job involvement, job satisfaction, and organizational commitment for nurses. *Journal of Psychology, 129*, 643-649.

Konrad, A. M., Winter, S., & Gutek, B. A. (1992). Diversity in work group sex composition: Implications for majority and minority members. *Research in The Sociology of Organizations, 10*, 115-140.

Kramer, M., & Schmalenberg, C. (1991). Job satisfaction and retention: Insight for the '90's. *Nursing, 21*, 50-55.

Larson, E., Lee, P. C., Brown, M. A., & Shorr, J. (1984). Job satisfaction: Assumptions and complexities. *Journal of Nursing Administration, 14*(1), 31-38.

Laschinger, H. K. S., & Havens, D. S. (1996). Staff nurse work empowerment and perceived control over nursing practice: Conditions for work effectiveness. *Journal of Nursing Administration, 26*(9), 27-35.

Lawler, E. E. (1973). *Motivation in work organizations.* Belmont, CA: Brooks/Cole.

Lee, R., & Wilbur, E. R. (1985). Age, education, job tenure, salary, job characteristics, and job satisfaction: A multivariate analysis. *Human Relations, 38*, 781-791.

Lefkowitz, J. (1994). Sex related differences in job attitudes and dispositional variables: Now you see them. *Academy of Management Journal, 37*, 323-349.

LeRoy, L. (1986). Continuity and change: Power and gender in nursing. *Journal of Professional Nursing, 2*(1), 28-36.

Locke, E. A. (1976). The nature and causes of job satisfaction. In M.D. Dunnette (Ed.), *Handbook of industrial and organizational psychology* (pp. 1297-1343). Chicago: Rand McNally.

Loscocco, K. A. (1990). Reactions to blue-collar work: A comparison of women and men. *Work and Occupations, 17*, 152-177.

Lucas, M. D., Atwood, J. R., & Hagaman, R. (1993). Replication and validation of anticipated turnover model for urban registered nurses. *Nursing Research, 42*, 29-35.

Lum, L., Kervin, J., Clark, K., Reid, F., & Sirola, W. (1998). Explaining nursing turnover intent: Job satisfaction, pay satisfaction, or organizational commitment? *Journal of Organizational Behavior, 19*, 305-320.

Mannheim, B. (1983). Male and female industrial workers: Job satisfaction, work role centrality, and work place preference. *Work and Occupations, 10*, 413-436.

Mantel, M. L. (1990). Job satisfaction: Impact of counseling and evaluation. *Nursing Management, 21*(4), 68-72.

Marini, M. M., Fan, P. L., Finley, E., & Beutal, A. M. (1996). Gender and job values. *Sociology of Education, 69*(1), 49-65.

Markham, W. T., & Pleck, J. H. (1986). Sex and willingness to move for occupational advancement: Some national sample results. *Sociological Quarterly, 26*, 121-143.

Martin, B. J. (1990). A successful approach to absenteeism. *Nursing Management, 21*(8), 45-48.

Maslach, C. (1982). *Burnout - the cost of caring.* Englewood Cliffs, NJ: Prentice-Hall.

Maslach, C., & Jackson, S. E. (1985). The role of sex and family variables in burnout. *Sex Roles, 12*, 837-851.

Maslow, A. H. (1954). *Motivation and personality.* New York: Harper & Row.

Maslow, A. H. (1970). *Motivation and personality.* (2nd ed.). New York: Harper & Row.

Mason, E. S. (1995). Gender differences in job satisfaction. *Journal of Social Psychology, 135*(2), 143-151.

Mathieu, J. E., & Zajac, D. M. (1990). A review and meta-analysis of the antecendents, correlates, and consequences of organizational commitment. *Psychological Bulletin, 108*, 171-194.

Matrunola, P. (1996). Is there a relationship between job satisfaction and absenteeism? *Journal of Advanced Nursing, 23*, 827-834.

McCloskey, J. C. (1990). Two requirements for job commitment: Autonomy and social integration. *Image, Journal of Nursing Scholarship, 22,* 140-143.

McGilton, K. S. & Pringle, D. M. (1999). The effects of perceived and preferred control on nurses' job satisfaction in long term care environments. *Research in Nursing & Health, 22*, 251-261.

McNeeley, R. L. (1984). Occupation, gender, and work satisfaction in a comprehensive human services department. *Administration in Social Work, 8*, 35-47.

McNeese-Smith, D. K. (1997). The influence of manager behavior on nurses' job satisfaction, productivity, and commitment. *Journal of Nursing Administration, 27*(9), 47-55.

McNeilly, K. M., & Goldsmith, R. E. (1991). The moderating effects of gender and performance on job satisfaction and intentions to leave in the sales force. *Journal of Business Research, 20*, 219-232.

Medcof, J. W., & Wegener, J. G. (1992). Work technology and the needs for achievement and nurturance among nurses. *Journal of Organizational Behavior, 13*, 413-423.

Medley, F. & Larochelle, D. R. (1995). Transformational leadership and job satisfaction. *Nursing Management, 26*(9), 64JJ-64NN.

Megargee, E. L. (1969). Influence of sex roles on the manifestation of leadership. *Journal of Applied Psychology, 53*, 377-382.

Miles, E. W. Patrick, S. L., & King, W. C. Jr. (1996). Job level as a systemic variable in predicting the relationship between supervisory communication and job satisfaction. *Journal of Occupational & Organizational Psychology, 69*(3), 277-292.

Misener, T. R., Haddock, K. S., Gleaton, J. U., & Abu Ajamieh, A. R. (1996). Toward an international measure of job satisfaction. *Nursing Research, 45*, 87-91.

Moss R., & Rowles, C. J. (1997). Staff nurse job satisfaction and management style. *Nursing Management, 28*(1), 32-34.

Motowildo, S. J. (1983). Predicting sales turnover from pay satisfaction and expectation. *Journal of Applied Psychology, 68,* 484-489.

Motowildo, S. J., Packard, J. S., & Manning, M. R. (1986). Occupational stress: Its causes and consequences for job performance. *Journal of Applied Psychology, 71,* 618-629.

Mottaz, C. J. (1984). Education and work satisfaction. *Human Relations, 11,* 985-1004.

Mottaz, C. J. (1986). Gender differences in job satisfaction, work-related rewards and values, and the determinants of job satisfaction. *Human Relations, 39,* 359-378.

Mottaz, C. J. (1988). Determinants of organizational commitment. *Human Relations, 41,* 467-482.

Mowday, R. T., Porter, L. W., & Steers, R. M. (1982). *Employee-organization linkages: The psychology of commitment, absenteeism, and turnover.* New York: Academic Press.

Mowday, R. T., Steers, R. M., & Porter, L. W. (1979). The measurement of organizational commitment. *Journal of Vocational Behavior, 14,* 224-247.

Mueller, C. W. & McCloskey, J. C. (1990). Nurses' job satisfaction: A proposed measure. *Nursing Research, 39,* 113-117.

Mueller, C. W. & Price, J. L. (1990). Economic, psychological and sociological determinants of voluntary turnover. *The Journal of Behavioural Economics, 19*(3), 321-335.

Muldoon, O. T. & Kremer, J. M. D. (1995). Career aspirations, job satisfaction and gender identity in female student nurses. *Journal of Advanced Nursing, 21*, 544-550.

Mutran, E. J., Reitzes, D. J., Bratton, K. A., & Fernandez, M. E. (1997). Self-esteem and subjective responses to work among mature workers: Similarities and differences by gender. *Journals of Gerontology Series B-Psychological Sciences and Social Sciences, 52B*(2), S89-S96.

New Zealand Health Information Service (1996). *The New Zealand health workforce, 1994.* Wellington: Ministry of Health.

Ng, S. H. (1993). A job satisfaction scale for nurses. *New Zealand Journal of Psychology, 22,* 46-53.

Norbeck, J. S. (1985a). Perceived job stress, job satisfaction, and psychological symptoms in critical care nursing. *Research in Nursing & Health, 8*, 253-259.

Norbeck, J. S. (1985b). Types and sources of social support for managing job stress in critical care nursing. *Nursing Research, 34*, 225-230.

Nuttal, P. (1983). Male takeover or female giveaways? *Nursing Times, 79*, 10-11.

O'Connor, T. (1992). Our nursing career: Are you here to stay? *New Zealand Nursing Journal, 85*, 14-16.

Packard, J. S., & Motowildo, S. J. (1987). Subjective stress, job satisfaction and job performance of hospital nurses. *Research in Nursing & Health, 10,* 253-261.

Page, C. & Meyer, D. (1999). *Applied research design for business and management.* Sydney: McGraw-Hill.

Pfeffer, J., & Davis-Blake, A. (1987). The effect of the proportion of women on salaries: The case of college administrators. *Administrative Science Quarterly, 32,* 1-24.

Phelan, J. (1994). The paradox of the contented female worker: An assessment of alternative explanations. *Social Psychology Quarterly, 57*(2), 95-107.

Phelan, J., Bromet, E. J., Schwartz, J. E., Dew, M. A., & Curtis, E. C. (1993). The work environments of male and female professionals: Objective and subjective characteristics. *Work and Occupations, 20,* 68-89.

Phelan, T. J., & Phelan, J. (1983). Higher education and early life outcomes. *Higher Education, 12,* 665-680.

Pilkington, W., & Wood, J. (1986). Job satisfaction, role conflict and role ambiguity - a study of hospital nurses. *Australian Journal of Advanced Nursing, 3,* 3-13.

Polit, D. E. (1996). *Data analysis & statistics for nursing research.* Stamford, CT: Appleton & Lange.

Porter, L. W., & Lawler, E. E. (1968). *Managerial attitudes and performance.* Homeward, IL: Dorsey Press.

Price, J. L., & Mueller, C. W. (1981). *Professional turnover: The case of nurses.* New York: SP Medical & Scientific Books.

Price, J. L., & Mueller, C. W. (1986a). *Absenteeism and turnover in hospital employees.* Greenwich, CT: JAI Press.

Price, J. L., & Mueller, C. W. (1986b). *Handbook of organizational measurement.* Cambridge, MA: Ballinger.

Price Waterhouse (1988). *Nurse retention and recruitment: A matter of priority.* London: Price Waterhouse.

Ratcliffe, P. (1996). Gender differences in career progress in nursing: Towards a non-essential structural theory. *Journal of Advanced Nursing, 23,* 389-395.

Revicki, D. A., & May, H. J. (1989). Organizational characteristics, occupational stress, and mental health in nurses. *Behavioral Medicine, 15,* 30-36.

Ringerman, E. S. (1990). Characteristics associated with decentralization experienced by nurse managers. *Western Journal of Nursing Research, 12,* 336-346.

Riordan, J. (1991). Prestige: Key to job satisfaction for community health nurses. *Public Health Nursing, 8*(1), 59-64.

Roberts, K. H., & Glick, W. (1981). The job characteristics approach to task design: A critical review. *Journal of Applied Psychology, 66,* 193-217.

Rotchford, N. L., & Roberts, K. H. (1982). Part-time workers as missing persons in organizational research. *Academy of Management Review, 7*, 228-234.

Rousseau, D. M. (1995). *Psychological contracts in organizations: Understanding written and unwritten agreements*. Thousand Oaks, CA: Sage Publications.

Russ, F. A. & McNeilly, K. M. (1995). Links among satisfaction, commitment, and turnover intentions: The moderating effect of experience, gender, and performance. *Journal of Business Research, 34*, 57-65.

Sackett, P. R., Dubois, C. L. Z., & Noe, A. W. (1991). Tokenism in performance evaluation: The effects of work group representation on male-female and white-black differences in performance ratings. *Journal of Applied Psychology, 76*, 263-267.

SAS (1989). *SAS/STAT user's guide, Version 6* (4th ed.). Cary, NC: SAS Institute, Inc.

Savage, J. (1985). *Nurses, gender and sexuality*. London: Heinemann Nursing.

Scandura, T. A. & Lankau, M. J. (1997). Relationships of gender, family responsibility and flexible work hours to organizational commitment and job satisfaction. *Journal of Organizational Behavior, 18*, 377-391.

Schneer, J. A. & Reitman, F. (1995). The impact of gender as managerial careers unfold. *Journal of Vocational Behavior, 47*, 290-315.

Schulz, R., Greenley, J., & Brown, R. (1995). Organization, management, and client effects on staff burnout. *Journal of Health & Social Behavior, 36*(4), 333-345.

Schwartz, F. N. (1989). Management women and the new factors of life. *Harvard Business Review, 1*, 65-76.

Sevastos, P., Smith, L., & Cordery, J. L. (1992). Evidence on the reliability and construct validity of Warr's (1990) well-being and mental health measures. *Journal of Occupational Psychology, 65*, 33-49.

Simpson, K. (1985). Job satisfaction or dissatisfaction reported by registered nurses. *Nursing Administration Quarterly, 9*, 64-73.

Sligo, F. X. (1997). An introduction to communication theory. In F. X. Sligo, S. Olsson, & C. Wallace (Eds.), *Perspectives in business communication* (pp. 1-12). Palmerston North, NZ: Software Technology New Zealand Ltd.

Smith, P.C., Kendall, L. M., & Hulin, C.L. (1969). *The measurement of satisfaction in work and retirement: A strategy for the study of attitudes.* Chicago: Rand McNally.

Smith, D. B., & Plant, W. T. (1982). Sex differences in job satisfaction of university professors. *Journal of Applied Psychology, 67*, 249-251.

Song, R., Daly, B. J., Rudy, E. B., Douglas, S., & Dyer, M. A. (1997). Nurses' job satisfaction, absenteeism, and turnover after implementing a special care unit practice model. *Research in Nursing & Health, 20*, 443-452.

Spector, P. E. (1985). Measurement of human service staff satisfaction: Development of the job satisfaction survey. *American Journal of Community Psychology, 13,* 693-713.

Spector, P. E. (1986). Perceived control by employees: A meta-analysis of studies concerning autonomy and participation at work. *Human Relations, 11,* 1005-1016.

Stamps, P. L., & Piedmont, E. B. (1986). *Nurses and work satisfaction.* Ann Arbor, MI: Health Administration Press Perspectives.

Stroh, L. K., Brett, J. M., & Reilly, A. H. (1996). Family structure, glass ceiling, and traditional explanations for the differential rate of turnover of female and male managers. *Journal of Vocational Behavior, 49,* 99-118.

Tabachnick, B. G., & Fidell, L. S. (1989). Using multivariate statistics (2nd ed.). New York: Harper Collins.

Tovey, E. J., & Adams, A. E. (1999). The changing nature of nurses' job satisfaction: An exploration of sources of satisfaction in the 1990's. *Journal of Advanced Nursing, 30,* 150-158.

Traynor, M., & Wade, B. (1993). The development of a measure of job satisfaction for use in monitoring the morale of community nurses in four Trusts. *Journal of Advanced Nursing, 18,* 127-136.

Tsui, A., Egan, T., & O'Reilly, C. (1992). Being different: Relational demography and organizational attachment. *Administrative Science Quarterly, 37,* 549-588.

Tumulty, G. (1992). Head nurse role design: Improving satisfaction and performance. *Journal of Nursing Administration, 22*(2), 41-48.

Tumulty, G., Jernigan, I. E., & Kohut, G. F. (1994). The impact of perceived work environment on job satisfaction of hospital staff nurses. *Applied Nursing Research, 7*, 84-90.

Urden, L. D. (1999). What makes nurses stay? *Nursing Management, 30*(5), 27,30.

Vandenberg, R. J., & Lance, C. E. (1992). Examining the causal order of job satisfaction and organizational commitment. *Journal of Management, 18*, 153-167.

Vroom, V. H. (1964). *Work and motivation.* New York: John Wiley & Sons.

Weaver, C. N. (1978). Sex differences in the determinants of job satisfaction. *Academy of Management Journal, 21*, 265-274.

Weissman, C. S. (1982). Recruit from within: Hospital nurse retention in the 1980's. *Journal of Nursing Administration, 12*(5), 24-31.

Weissman, C. S., Alexander, C., & Chase, G. A. (1980). Job satisfaction among hospital nurses: A longitudinal study. *Health Services Research, 15,* 341-364.

Weissman, C. S., Alexander, C., & Chase, G. A. (1981). Determinants of hospital staff nurse turnover. *Medical Care, 19*,431-443.

Weissman, C. S., & Nathanson, C. (1985). Professional satisfaction and client outcomes. *Medical Care, 23*, 1170-1192.

Wells, G. T. (1990). Influence of organizational structure on nurse manager job satisfaction. *Nursing Administration Quarterly, 14*(4), 1-8.

Wharton, A. S., & Baron, J. N. (1987). So happy together? The impact of gender segregation on men at work. *American Sociological Review, 52*, 574-587.

Wharton, A. S., & Baron, J. N. (1991). Satisfaction? The psychological impact of gender segregation on women at work. *The Sociological Quarterly, 32*, 365-387.

Workforce Development Group (1987). *The nursing workforce in New Zealand 1986.* Wellington: Department of Health.

Worthington, K. (1993). Alabama nurses respond to elimination of Baylor plan. *American Nurse, 13*, 28.

Yamashita, M. (1995). Job satisfaction in Japanese nurses. *Journal of Advanced Nursing, 22*, 158-164.

Zanna, M. P., Crosby, F., & Lowenstein, G. (1987). Male reference groups and discontent among female professionals. In B. Gutek & L. Larwood (Eds.), *Women's career development* (pp. 28-41). Newbury Park, CA: Sage.

Zedeck, S., Maslach, C., Mosier, K., & Skitka, L. (1988). Affective response to work and quality of family life: Employee and spouse perspectives. *Journal of Social Behavior and Personality, 3*, 135-157.

Appendix A

JOB SATISFACTION SCALE

Please complete this questionnaire which requires you to tick the appropriate score to indicate how strongly you agree or disagree with each statement. A scale of 1 to 7 is provided with each statement:

1 being "strongly agree"
4 being "neither agree nor disagree"
7 being "strongly disagree".

		1	*2*	*3*	*4*	*5*	*6*	*7*
1	I know the hospital administration is there to back nurses up.							
2	There is no doubt that this hospital administration cares a good deal about the welfare of nurses.							
3	The nursing administrators generally consult with the nursing staff on daily problems and procedures.							
4	The nursing goals of the hospital administration are unclear to me.							
5	The nurses on my unit don't hesitate to pitch in and help one another out when things get in a rush.							
6	Even though our basic training may differ, the nurses on my unit accept one another as colleagues.							
7	Nursing personnel on my unit do a lot of petty quarrelling.							
8	I find I have to work harder at my job than I should because of the incompetence of the people I work with.							
9	There are enough opportunities on my unit for developing my professional skills.							
10	This is a dead-end job for me.							
11	Nurses I know who do well on the job stand a fair chance of being promoted.							
12	The house surgeons/registrars don't consult me about patient care as often as I would like.							

		1	2	3	4	5	6	7
13	I am sometimes required to do things on my job that are against my better professional judgement.							
14	I have the feeling that my unit is not organised in such a way that the needs of patients are given top priority.							
15	I feel that I am supervised more closely than I need to be.							
16	My requests for leave are fairly handled without personal bias.							
17	Staff rostering is not flexible enough to suit my needs.							
18	I have a good working relationship with my charge nurse.							
19	There is insufficient support for nurses wanting to attend courses and seminars outside the hospital.							
20	I found the orientation programme inadequate for my needs.							
21	The provisions for inservice training adequately meet my needs.							
22	My patients fully appreciate the care I have given them.							
23	There is good communication between patients/relatives and nurses in our unit.							
24	House surgeons/registrars on my unit generally understand and appreciate what the nursing staff do.							

Appendix B

Information Sheet

Research Project: *Registered Nurses' Job Satisfaction in a New Zealand Public Hospital.*

Researcher:
Pip Beanlands
Department of Psychology
Massey University of Albany
AUCKLAND
Telephone: 443-9799 ext. 9243

Supervisor:
Dr Jennifer Stillman
Department of Psychology
Massey University of Albany
AUCKLAND
Telephone: 443-9799 ext. 9868

You have been selected from a computerised database and are among approximately 250 registered nurses in your hospital to be invited to participate in this study examining registered nurses' job satisfaction. This study is being undertaken by the researcher as a thesis towards a Masters degree in Industrial and Organisational Psychology.

If you agree to participate in this study, you will be asked to complete the enclosed questionnaires. The first requires you to indicate how strongly you agree or disagree with each question. A scale of 1 to 7 is provided with each question, 1 being "strongly agree", 4 being "neither agree nor disagree" and 7 being "strongly disagree". For analytical reasons you are also asked to complete the questionnaire entitled "Demographic details". These questionnaires should take approximately 15 minutes to complete. **Informed consent is assumed by the completion and return of these questionnaires.** Once you have completed the questionnaires, please return to the researcher in the self-addressed, stamped envelope provided.

If you agree to participate in this study, you have the right to:

- Refuse to answer any question, without penalty and without having to give an explanation. However, if possible, it is preferred that you answer all questions.
- Ask any questions about the study that occurs to you during your participation.
- Provide information on the understanding that it is completely confidential to the researcher. All data collected will be stored in a secure place. It will not be possible to identify you in any reports that are prepared from this study.
- Be given access to a newsletter that will publish findings from the study when it is concluded.
- If you have any queries or concerns regarding your rights as a participant in this research you may contact the Health Advocates Trust (phone 623-5799).

This study has been approved by the following Ethics Committees:
1.Massey University Human Ethics Committee
2.Health Funding Authority Ethics Committee

Appendix C

Demographic Details

Please complete the following questions:

1. Are you:

Male Female (please circle appropriate choice)

2. Please circle which age group you fit into:

20 - 25
26 - 30
31 - 35
36 - 40
41 - 45
46 - 50
51 - 55
> 55

3. Are you:

Single
Married
Living with a partner (please circle appropriate choice)

4. Please state the ethnic group(s) you most closely identify with:

.....

5. How many years have you been practising as a Registered nurse?

.....

6. Please state your highest educational qualification in nursing:

.....

7. Please circle the area of nursing you are currently employed in:

Medical
Surgical
Paediatrics
Specialist unit State which.....
Emergency Department
Outpatient clinics
Gynaecology
Maternity
Rehabilitation
Gerontology
Orthopaedics
Management

Other .....(please specify)

8. Please circle the level of position you currently hold:

Staff Nurse
Charge Nurse/Unit Manager
Clinical Nurse Educator
Clinical Nurse Consultant
Nurse Adviser

Other .....(please specify)

9. Please circle the type of tenure in which you are currently employed:

Full-time

Part-time

If part-time, please state the number of hours per week:.....

Thank you for agreeing to participate in this study.

Appendix D

MEMORANDUM

To: Research participants

From: Pip Beanlands

Subject: Registered nurses' job satisfaction

Date: 12 April 1999

This is to thank all of those nurses who have completed questionnaires for my research investigating registered nurses' job satisfaction. Your help is greatly appreciated.

If you have not yet responded, but would like to do so, there is still time. All you need to do is to fill out the *Job Satisfaction Scale* survey and the *Demographic Details* questionnaire and return them to me in the Freepost envelope provided.

If you have misplaced your questionnaires and would still like to respond, please do not hesitate to contact me on telephone number 443-9799 ext. 9243 to request further copies.

Thank you again for your assistance. At the completion of the research I will be pleased to make the outcomes of the survey available.

Appendix E

Table E1

Rotated Factor Matrix of Job Satisfaction Items Specifying Four Factors (N = 118)

Item	Factor Loadings 1	2	3	4	*Communality*
Factor 1					
Communication with patients (23)	**.72**	.09	.11	.12	.56
Understanding by doctors (24)	**.60**	.14	.10	.11	.40
Appreciation by patients (22)	**.55**	-.15	.00	.06	.33
Accept one another as colleagues (6)	**.50**	**.40**	.00	.16	.43
Requests for leave (16)	**.44**	.18	.11	.02	.24
Staff rostering (17)	**.43**	.22	-.13	.27	.33
Help one another (5)	**.43**	**.43**	-.02	.19	.41
Dead-end job (10)	**.30**	.20	.19	.28	.25
Factor 2					
Inservice training (21)	.02	**.63**	.12	.07	.42
Professional development (9)	**.30**	**.62**	.25	.07	.54
Courses and seminars (19)	.02	**.52**	.18	.12	.31
Orientation programme (20)	.12	**.47**	.29	.15	.34
Working relationship (18)	**.32**	**.42**	.02	.23	.33
Factor 3					
Administration consults nurses (3)	.08	.10	**.71**	-.16	.54
Administration supports nurses (1)	.00	.20	**.66**	.25	.54
Administration care about nurses (2)	-.10	**.32**	**.63**	.23	.56
Promotion (11)	.18	**.32**	**.42**	-.05	.31
Factor 4					
Close supervision (15)	.13	.14	.05	**.64**	.45
Incompetence (8)	.07	.11	-.05	**.64**	.42
Petty quarrelling (7)	.06	.09	.04	**.50**	.27
Patient needs (14)	**.31**	.29	**.30**	**.43**	.45
Professional judgement (13)	.21	-.07	**.36**	**.43**	.37
Patient care (12)	.27	.12	.19	**.31**	.22
Eigenvalue	5.43	1.79	1.18	0.97	
% of variance explained	26.4	23.5	21.2	20.8	

Note. Item 4 on the questionnaire does not appear in this table. Factor loadings for this item on all factors were .21, .03, .24 and .21 respectively. The numbers in brackets beside each item in the table, indicate the number of the question on the job satisfaction scale.

Appendix F

Table F1

Matched Pairs of Male and Female Registered Nurses (RN) (n = 22)

Pairs	Age Group	Marital Status	Ethnicity	Years as RN	Highest Nursing Qualification	Level on Nursing Hierarchy	Hours Per Week
M	36-40	Single	NZer	5	Post-Grad Cert	Staff Nurse	40
F	20-25	Single	NZer	5	Post-Grad Cert	Staff Nurse	40
M	26-30	Single	NZer	5	Bachelor degree	Staff Nurse	40
F	31-35	De facto	NZer	5	Bachelor degree	Staff Nurse	40
M	41-45	Married	NZer	20	Dip. in Nursing	Staff Nurse	40
F	41-45	Married	NZer	21	Dip. in Nursing	Staff Nurse	40
M	31-35	Single	NZer	4	Dip. in Nursing	Staff Nurse	40
F	20-25	Single	NZer	4	Dip. in Nursing	Staff Nurse	40
M	36-40	Single	NZer	5	Post-Grad Cert	Staff Nurse	40
F	26-30	Single	NZer	7	Post-Grad Cert	Staff Nurse	40
M	36-40	Married	NZer	1.5	Bachelor degree	Staff Nurse	40
F	20-25	Married	NZer	1	Bachelor degree	Staff Nurse	40
M	26-30	Single	*1	6	Bachelor degree	Staff Nurse	40
F	26-30	Married	NZer	6	Bachelor degree	Staff Nurse	40
M	36-40	Married	NZer	12	Post-grad Dip.	Manager *2	40
F	36-40	Single	NZer	18	Post-grad Dip.	Staff Nurse	40
M	41-45	De facto	NZer	10	Dip. in Nursing	Staff Nurse	40
F	41-45	De facto	NZer	10	Dip. in Nursing	Staff Nurse	23
M	31-35	De facto	NZer	10	Dip. in Nursing	Staff Nurse	40
F	31-35	Single	NZer	10	Dip. in Nursing	Charge Nurse	36
M	20-25	Married	NZer	4	Bachelor degree	Staff Nurse	40
F	26-30	Married	NZer	6	Bachelor degree	Staff Nurse	40

Note:
*1 Ethnicity not given as this could identify the participant.
*2 Specific level on nursing hierarchy not given as this could identify the participant.

Appendix G

Computer Programming and Output of Data Analysis

SAS programs are included for those with access to SAS software, and output is saved both as a Word 97 document and in an RTF format to enable use by those without access to Word.

The folder labelled **Factor Analysis** includes:

Factor.sas
- The SAS program run to obtain a solution of factor analysis

3FactorSoln.doc or **3FactorSoln.rtf**
- Output of Factor.sas including:
  - Eigenvalues
  - Scree plot
  - Factor pattern
  - Final communality estimates
  - Orthogonal transformation matrix
  - Rotated factor matrix
  - Standardised scoring coefficients
  - Cronbach alpha coefficients
  - Pearson correlation coefficients

The folder labelled **Gender** includes:

Gender.sas
- The SAS program run to obtain *t* –tests gender

Gender.doc or **Gender.rtf**
- Output of Gender.sas exploring gender differences to Factors of job satisfaction

The folder labelled **Demographic variables** includes:

AGE

Age.sas

- The SAS program run to obtain analysis of the effect of age on nurses' job satisfaction, using GLM analysis of variance

Age.doc or **Age.rtf**

- Output of Age.sas exploring effects of age on nurses' job satisfaction

MARITAL STATUS

Mstatus.sas

- The SAS program run to obtain analysis of the effect of marital status on nurses' job satisfaction, using GLM analysis of variance

Mstatus.doc or **Mstatus.rtf**

- Output of Mstatus.sas exploring effects of marital status on nurses' job satisfaction

YEARS OF EXPERIENCE IN NURSING

Exper.sas

- The SAS program run to obtain analysis of the effect of years of experience in nursing on nurses' job satisfaction, using GLM analysis of variance

Exper.doc or **Exper.rtf**

- Output of Exper.sas exploring effects of years of experience on nurses' job satisfaction

QUALIFICATIONS

Quals.sas

- The SAS program run to obtain analysis of the effect of qualifications on nurses' job satisfaction, using GLM analysis of variance

Quals.doc or **Quals.rtf**

- Output of Quals.sas exploring effects of qualifications on nurses' job satisfaction

EMPLOYMENT STATUS

Estatus.sas

- The SAS program run to obtain analysis of the effect of employment status on nurses' job satisfaction, using GLM analysis of variance

Estatus.doc or **Estatus.rtf**

- Output of Estatus.sas exploring effects of employment status on nurses' job satisfaction