

**THE IMPACT OF LEARNING, ADVANCEMENT AND QUALITY OF WORK-LIFE
ON TURNOVER INTENTIONS AMONG NURSES IN AMATHOLE DISTRICT,
SOUTH AFRICA**

BY

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DECLARATION

I, Tandiwe Joy Marufu, student number 200909604, do hereby declare that the work titled **“THE IMPACT OF LEARNING, ADVANCEMENT AND QUALITY OF WORK-LIFE ON TURNOVER INTENTIONS AMONG NURSES IN AMATHOLE DISTRICT, SOUTH AFRICA”** is my personal work and it has not been done anywhere before in any other university and that all the sources I have cited and utilised are well stated. The work is being submitted in fulfilment of the requirements for the degree of Master of Commerce in Industrial Psychology at the University of Fort Hare, Alice Campus.

I hereby pronounce that I am fully aware of the University of Fort Hare’s policy on plagiarism. I have also observed all plagiarism rules and regulations. I have obtained an ethical clearance certificate from the University of Fort Hare`s Research Ethics Committee.

Signed.....

.....

T. J Marufu

Date

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My special thanks to God Almighty, for His daily protection and his guidance, I would not have gone this far without his help and wisdom.

I want to thank my mother and my late father, and my entire family, for their support, patience throughout this journey.

Thirdly, I want to express my heartfelt gratitude to all my friends who gave the support I needed.

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DEDICATION

Glory be to God, for He has always my strength and guidance during my entire life and education.

I would like to dedicate this to my mum, my late father, my siblings Tendai, Talent, Tariro, Thomas and Tinotenda. No words can express my gratitude to you for being always there for me in my times of trials and need. Thank you so much for everything.

ABSTRACT

Ongoing instability in the nursing workforce is raising questions globally about the issue of nurse turnover. It is against this background that this research examines the impact of learning, advancement and quality of work-life on turnover intentions among nurses in selected hospitals from Eastern Cape. Little research has been conducted to investigate the impact of the above mentioned subjects on turnover intentions among nurses in the South African health sector. Research questions as well as hypotheses were formulated as the means to gain data on the subject. The research employed a quantitative design with a sample size of 160 nurses and 159 were returned. The data analysis consisted of both descriptive and inferential statistics. The main findings of the study showed a positive relationship among job satisfaction, work-life rewards, learning and advancement opportunities and job satisfaction. However, there were negative relationships between job satisfaction and turnover intentions; work-life rewards and turnover intentions; and also among learning, career advancement and turnover intentions. Finally, suggestions were made to the top management in the Health sector to come up with strategies and mechanisms that improve nurses' quality of work-life and offering them training and advancement opportunities through organisational change programs.

Key Terms: Turnover intention; Quality of work-life; Learning and advancement opportunities; Job satisfaction.

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CHAPTER 1: INTRODUCTION

1.1 Introduction

South Africa's public health service is incapable of holding health specialists such as doctors, pharmacists, nurses and the like (Rigas, 2009). What is working the status quo is that so far efforts by the institute to deal with the challenge are apparently not successful. The Eastern Cape Department of Health (ECDoH) faces a challenge posed by high labour turnover as most employees are leaving their respective hospitals for more lucrative jobs abroad. Rigas (2009) identified that employees' turnover is an established issue of critical standing to the organisations. According to Lazar (2001), organisational throughput was viewed as one of the trials that arise as a result of turnover. In the Sunday Times (2009), it was indicated that health employees are fed up with their less-than-satisfactory treatment and the state of the health sector henceforth the doctors were attracted by more career prospects abroad. Employee turnover has been found to be costly in most health institutions as human resources with the skills and knowledge is limited and as a result it is affecting the service delivery of the organisation.

According to the Eastern Cape Department of Health annual report (2010), staffing and retaining of health specialists has been cited as a challenge and a limitation that is affecting service delivery. It seems that the Eastern Cape Department of Health (ECDoH) is adversely affected by lack of effective retaining policies and employee turnover, hence, the need for this research. As a case in point, the yearly report of the sector replicates that the turnover proportion is 10.2% but when it comes to health specialists, the average is 36.7% (Eastern Cape Networks Magazine, 2008).

Thom (2003) stipulates that the South African health career is in a disaster state as a large number of experts try to find other jobs or choose to leave the country looking

for rewarding jobs abroad. Referring to the Human Sciences Research Council, it is projected that South Africa will incur a shortage of nineteen thousand employees within eight years (Rigas, 2009). Ongori (2007) added that because of the influence health professionals have on patient care and health consequences, nurse turnover and turnover intent have gained a significant attention worldwide.

According to Greyling and Stanz (2010) research designates that investments in the human capital of a business, such employment benefits, reduce intended turnover as long as employees are satisfied. Turnover does not exist if the people are offered what they want for them to stay (Seo et al., 2004). According to Pfeffer (2004), quality of work-life, learning opportunities and advancement opportunities provide employees with the motivation to perform well. Pedler, Burgoyne and Boydell (2001) highlighted that positive results of quality of work-life include improved job satisfaction, reduced absenteeism and reduced burnout. Pfeffer (2004), highlighted that learning also enhances employees' self-respect through job satisfaction and humanising the work by conveying significant jobs, offering chances to cultivate human capability to implement well, guaranteeing job security, sufficient employment benefits and providing safe and healthy working environments (Mohammad, 2003). As a result, high quality work-life organisations enjoy better sustainable efficiency and productivity followed by a decrease in turnover intention.

The Eastern Cape Health Department Head Office is aground in Bisho with a sum of services distributed through the Province. Seo et al., (2004) contented that organizations are mainly worried about the amount of employees who vacate to accept another job whereas, if the organization had established better retaining mechanisms, these employees might have remained. Knowing that some turnover is likely, an organisation must still take pre-emptive measures to embrace this number

down as much as possible. It seems that organizations are finding it problematic to retain employees, and the ECDoH appears to be one of them.

1.2 Problem statement

Based on Lazar (2001) health professionals have displayed a significantly high turnover intention rate than the average. Referring to the Gauteng legislature nursing summit held in Johannesburg on July 2013, nurses highlighted that they feel marginalised, undervalued and overworked in crowded, short-staffed hospitals. In addition to that, it has been highlighted in the Health and Networks magazine of Eastern Cape in 2008 that 60% of chief nursing officers were contemplating changing jobs in the upcoming 4 years. Past research by Chang and Lee (2007); Ostroff (1992), indicated that the perception of learning organisational culture, job satisfaction, advancement, work-life rewards and turnover intention can upset one's inspiration and efforts. This will have an effect in individual and organisational performance.

Nevertheless, there are very few studies that have been done on these elements particularly for employees in the health sector in South Africa. A lot of researchers were generalizing their conclusions basing on data collected in European countries and also there is little literature on health care. In this research, this gap is going to be overcome by exploring these subjects in selected hospitals in the Amathole district in the Eastern Cape. There are no known studies linked to these subjects in the health sector in the Eastern Cape. Since there are no known studies in the Eastern Cape that are related to these subjects, this study aims to investigate the impact that learning opportunities, advancement opportunities and quality of work-life have on turnover intentions among nurses in selected hospitals in the Amathole

district. To address this problem, the following are the objectives of this research study.

1.3 Objectives

- 1) To explore the relationship between work-life rewards and turnover intentions among nurses in Amathole district Department of health.
- 2) To examine the relationship between job satisfaction and employees' turnover intentions among nurses in Amathole district.
- 3) To examine the relationship between learning and employee's turnover intention among nurses in Amathole district Department of health.
- 4) To analyse how advancement and work-life rewards could affect nurses' turnover intentions in the sector.
- 5) To identify the relationship between learning and job satisfaction among nurses in the department of health in Amathole district.

1.4 Hypotheses

- H₀ There is no relationship between work-life rewards and turnover intentions
- H₁ There is a negative relationship between work-life rewards and turnover intentions
- H₀ There is no relationship between job satisfaction and work-life rewards
- H₂ There is a positive relationship between job satisfaction and work-life rewards
- H₀ There is no relationship between learning, career advancement and turnover intentions

H3 There is a negative relationship between learning, career advancement and turnover intentions

H0 There is a no relationship between learning, advancement and job satisfaction

H4 There is a positive relationship between learning, advancement and job satisfaction

H0 There is no relationship between work-life rewards and learning and advancement opportunities

H5 There is a positive relationship between work-life rewards and learning and advancement opportunities

H0 There is no relationship between Job satisfaction and turnover intentions

H6 There is a negative relationship between Job satisfaction and turnover intentions

1.5 Significance of the study

This research will provide advantages to both staff and the administration in the department of health. Employees will benefit by given the chance to affirm their individual perceptions pertaining to their jobs and make recommendations as to what they feel the department must do to increase their job satisfaction. The conclusions of this study will be useful to management in developing policies for the attracting and retaining of the valued staff in the health sector. It also contributes in devising of strategies for mounting employee job satisfaction which in turn may effect in high loyalty rates among the workforces. This research will also add to the literature considering very little has been done in these subjects in the department of health.

1.6 Definition of Concepts

1.6.1 Quality of work-life

Quality of work life discusses the favourableness or unfavourableness of the work environment. Hsu and Kernohan, (2006) added that quality of working life denotes a worker's fulfilment with the working lifetime.

1.6.2 Turnover intentions

Lacity, Lyer and Rudramuniyaiah (2008) defined turnover intention as the extent to which a worker plans to leave the organisation. For the determination of this research, the description of Tett and Meyer (1993) is recycled, who suitably described turnover intention as the conscious and thoughtful willfulness to vacate the organisation.

1.6.3 Job satisfaction

Job satisfaction is well-defined as a pleasant or constructive sensitive state follow-on from the evaluation of one's job or job proficiencies (Dunnette & Locke, 1976; Dessler, 1978). According to Locke and Henne (2006), job satisfaction is defined as the enjoyable expressive state consequential from the accomplishment of one's job principles in the work status quo.

1.7 Delimitation of the Study

The study focuses on the impact of learning, advancement and quality of work-life among nurses in Amathole district department of health.

1.8 Proposed outline of the study

Chapter 1: Introduction and background of the study

This chapter gives the background to the focus of the study globally, within South Africa and the concerns at organisational level. The chapter addresses the importance of the need to have proper retention strategies in the health sector of South Africa as well as in the global economy. The statement of the research

problem, research objectives, significance of the study, delimitation of study and ethical considerations was explored.

Chapter 2: Literature Review

The chapter provides a comprehensive literature review of quality of work-life, learning and advancement and their probable impact to turnover intentions among health employees and specifically in the organisational context. The definitions and special contributions from previous studies are discussed in the chapter. Literature study on turnover intentions in South Africa, factors affecting turnover and their consequences in the public sector is also addressed in the chapter.

Chapter 3: Research Methodology

Chapter 3 describes the research methodology applied in the study. The research methods, techniques and sampling procedures which were followed, are discussed.

Chapter 4: Results and Discussions

Chapter 4 focuses on the empirical interpretation and analysis of the research findings, using quantitative analysis. Tables and graphs are used to illustrate the research findings.

Chapter 5: Conclusions and Recommendations

Chapter 5 provides conclusions and policy recommendations drawn from the research results. The limitations of the study and recommendations for further studies are provided in this chapter.

1.9 Chapter summary

This chapter was the foundation of the study at hand. The main theme behind the research was introduced taking into cognizance the objectives. The hypotheses of the study were formulated. In this chapter, the details concerning location, type and units of analysis have been described. The next chapter will provide the literature review of relevant literature related to the subject of this study.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter looks at the background of the South African health Sector in relation to the turnover intention among employees. Also this chapter is focusing on aspects of job satisfaction, their quality of work-life, learning and advancement opportunities in their respective work places. Further, a detailed literature review of Herzberg's motivation theory and human capital theory is briefly discussed. The chapter further extends to give another detailed review of the relationship between the mentioned subjects and turnover intention.

2.2 Theoretical literature

2.2.1 Fredrick Herzberg's motivation theory

Duffield et al., (2004) state that Herzberg's two factor theory explains the process of motivating employees. It specifies that achievement and company rules and regulations have significant effect on the level of worker job satisfaction. Hence, managers need to focus more on these factors to improve motivation among employees.

The theory distinguishes between motivators and hygiene factors. Duffield et al., (2004) added that motivators are dynamics that contribute to constructive satisfaction, rising from inherent conditions of the job, for instance, appreciation, accomplishment and individual development. These factors are extrinsic to the job itself, and comprise facets such as company regulations, supervisory rules and salaries. For instance, status, job security, fringe benefits and work environments (Duffield et al., 2004).

Herzberg shows that satisfaction and dissatisfaction at work come from different factors of work. He validated that employees always make an effort to reach hygiene needs and they are dissatisfied in their absence. Nevertheless, Cascio (2010) showed that ill managed organisations are failing to understand that people are not driven by hygiene needs only. In addition to that, Cascio (2010) added that employees are actually moved by empowering them to satisfy the factors that Herzberg recognised as actual motivators which represent an extreme deeper level of achievement. He pointed that if employees are given both intrinsic and extrinsic rewards, they will be motivated and enjoy being at work.

This theory is closely related to this study in the sense that when personnel are satisfied and enjoying work-life rewards they will have lower intentions to leave the organisation looking for better organisations. Boyle (2009) added that managed organisations understand that employees need to be motivated by offering them advancement opportunities like internal job postings, succession planning, job rotations as well as work-life rewards. They should also offer learning opportunities to motivate employees so that they will increase their skills and knowledge to get promotion.

2.2.2 Human capital theory

The notion of human capital theory is that learning nurtures earnings and efficiency by providing knowledge, skills and an effective way of analysing problems (Becker, 1993). High earnings and an increase in productivity motivate employees and hence increase job satisfaction. Human capital theory strains the importance of education and training as the major elements for competitive advantage. In addition to that, the amount of training and learning opportunities the employees are provided will lead to increase in productivity and acquiring new skills and knowledge will boost their job

satisfaction. Moreover, provision of formal education in organisations is seen as an asset in human investment.

This theory is closely related to this study in the sense that when employees are given a chance to develop and acquire new knowledge and skills they will enjoy their work and productivity will also increase, hence job satisfaction also increase and therefore turnover intentions will be reduced (Janseen, 1999).

2.3 Empirical literature

According to Bester (2012), turnover intention is rarely well-defined in stated studies due to the fact that most people view the term to be easy to understand. In addition to that, Bester (2012) contended that numerous academics (Horn, Griffeth & Salaro, 1984; Mobley, 1982; Mowday et al 1979; Steers, 1977) perceived turnover intention as the concluding phase before the actual turnover. The phrase turnover intention can be described as an employee's intention to leave the employer. According to Lacity, Lyer and Rudramuniyaiah (2008), turnover intention is the degree to which an employee anticipates to vacate the organisation. In this research, Tett and Meyer's definition (1993, p.219) is recycled; they suitably described turnover intention as: "... the mindful and thoughtful wickedness to leave the organisation".

Ongori (2007) expressed that the idea of turnover intention is the preparation to abandon an employing organisation, and this seems to be the direct predecessor to actual leaving. Several studies pointed out the view that turnover intention is normally recognised in the literature as a forecaster of turnover. The characteristics of a learning organisation include a number of aspects for example, information sharing, organisational learning ability, workplace education, invention, empowerment, group work and so forth. According to Yang (2003), job and

organisational conditions are mostly prejudiced by the situational approach of job fulfilment. Learning organisation may have certain influence on job satisfaction.

Saraji et al. (2006) point out that staff turnover does not always have negative effects in an organisation. He argues that some insignificant turnover is beneficial because it permits staff to move up the ladder to higher-ranking positions, giving them new prospects. In addition to that, it allows the industry to take in new ideas, in other words new people, new inventions, enthusiasm and motivation which are constructive to the organisation to increase efficiency.

Human resources remain the real assets for organisations. In this global era, organisations have to compete on the basis of excellence in human resources with multinational organisations. The development of human resources has become the priority of every organisation to keep its well trained and talented human resources. If employees of an organisation start to consider leaving their jobs then all its spending on their well-being will be converted into unrecoverable costs. Leaving of employees out of their respective organisations has both direct and indirect effect on the organisation's costs (Mikkelsen, Ogaard & Lovrich, 2000).

In order for the organisation to understand the concepts of labour turnover, it is significant to study turnover intentions. Consequently, a difference must be made amongst turnover intention and the real turnover itself. O'Brien-Pallas et al. (2006) defined turnover intention as one's likelihood of remaining with or leaving a hiring organisation, whereas actual turnover is the drive of organisational members across borderlines of an organisation. Though, it is recognised that people leave jobs for vast motives, research evidence indicates that intended turnover can be elucidated by employees' meaning to abandon the organisation (Hassmiller & Cozine, 2006).

For instance, if an employee does not know how to do his/her tasks effectively, frustration levels will increase and that employee will often leave at the earliest available opportunity. In comparison, career advancement reveals the use of organisational devices in supporting employees to accomplish their career goals, if an employee feels he has been satisfactorily rewarded or recognised for his/her efforts; he/she will tend to stay within the organisation.

Researchers have found certain factors that lessen the employee's turnover intention for example, organisational commitment, perceived organisational support, advancement opportunities, job satisfaction, quality of work-life, employees' engagement, learning opportunities. In previous studies, researchers have tried to explore the relationship between organisational learning, job satisfaction, and quality of work-life, advancement opportunities and turnover intentions in manufacturing sectors (Hassmiller & Cozine, 2006). The present study aimed to fulfil the empirical gap in the field of servicing sector such as health by exploring the same relationship between constructs.

2.3.1 Turnover intentions amongst nurses

Due to the shortage of nurses, high vacancy rates affected most hospitals' proficiency due to the costs accompanying employing and positioning emergency nurses, contracting temporary agency nurses and administering new nurses (Mosadeghrad & Ferdosi, 2013). Moreover, variations in nurse recruitment reduce the efficiency of team-based maintenance in patient units. As a result, not only does this negatively affect operational employment relations among nurses and physicians but this actually cascades to the care that is given to the patients (Cangelosi, Markham, & Bounds, 1998; Hassmiller & Cozine, 2006). Attention is being directed to nurse capacity, enrollment, turnover and organisational features and their impact

on patient well-being and health consequences (Aiken, Clarke, Sloane, Sochalski, & Silber, 2001; Stone et al., 2003; O'Brien-Pallas, Griffin, Shamian, Buchan, Duffield, Hughes, Laschinger, North & Stone, 2006).

Nurse retention has become a top priority area for numerous health maintenance organisations. Turnover of competent nurses has significances for health organisations and also the occupation as a whole because the needs of the patients and the top quality care which they expect to receive in hospitals appears to be highly compromised (Bragard, Dupuis, Razavi, & Reynaert, 2012). Furthermore, the shortage of nurses suggests that there is insufficient recruitment, which may result in reduced self-esteem and generate extra pressure on the 'stayers' due to increased assignments. Consequently, this can prime to alterations in the performance of nurses to their work consequential to reduced job fulfilment, low output, and lastly, parting the organisation. Nurse turnover is also expensive for healthcare societies and it requires assets that could be focussed at important business actions, for instance, development programs, and employee growth or employee retaining actions (Mosadeghrad et al., 2011).

2.3.2 Turnover intentions among nurses in the South African Background

The South African health care career is in a disaster as a large number of experts pursue alternate work or contemplate leaving the country in hunt of profitable jobs in foreign countries. This departure might have disastrous consequences for service delivery of health care in years to come (Thom, 2003). The core of the intensifying problem is that a direct currency to currency comparison between the remuneration of nursing employees in South Africa and developed countries indicates that nurses who earn an average of R5000 a month in South Africa are earning about R27000 in

Saudi Arabia (Oliveira, 2013). In addition to that, Govender (2002) highlighted that nurses in South Africa are not given competitive salaries and wages compared to other nurses Western countries. Resultantly, most health care employees are leaving for well-paying jobs overseas. According to the Human Sciences Research council, it is estimated that South Africa will have a shortage of 19000 nurses within 8 years (Oliver, 2003). Hence, this led Seo et al., (2004) to conclude in their study that 300 specialist nurses leave South Africa every month.

In support of the above mentioned views, the December 2008 issue of Hospitals & Health Networks magazine of Eastern Cape stated that around 75% of chief managerial officers were planning to give up work in the next 10 years. Further, 60% of chief nursing staff was expected to change jobs within the next four years. Consequently, succession planning has stirred to the front of tactical creativities. Huang et al., (2001) states that high staff turnover can impact destructively on organisation's capability to meet patient desires and offer superiority healthcare services. Employees' behavioural intention to turnover is a forecaster of their actual turnover.

From the established research, it is apparent that the consequences of this situation manifest in various areas and are a cause of concern. South Africa is left with junior nurses who still need training and guidance (Townsend, 2007). Furthermore, this situation creates enormous problems of mental and physical fatigue as some nurses work 18 – 22 hours per day. Additionally, drawing on previous research, the SANC confirmed that there has been a substantial increase in medico-legal incidents (Smit, 2003).

According to Thom (2003), the Faculty of Health Sciences at the University of Cape Town has also reported increased pressure on remaining staff brought about by critical staff shortages. Other causes of turnover are little scope for further training, a lack of respect and acknowledgement from other medical professions as well as poor working conditions in hospitals (Thom, 2003). Employers, for example, are often unwilling to give nurses time off for training due to severe staff shortages (Smetherham & Laurance, 2003). In furtherance of the above, the most prominent union of South African nurses, The Democratic Nursing Organisation of South Africa (DENOSA), is of the opinion that working conditions should be improved drastically as money cannot compensate for bad working conditions (Smit, 2003). Employee turnover therefore represents a major problem for both the nursing profession and health-care providers with respect to the ability to care for patients, the quality of the care provided, the loss of the continuity of care, the loss of skills and local knowledge, the increased length of stay and the financial costs of replacement (McCarthy et al., 2002). Therefore, this writer when considering the current situation, it is clear that employers should identify the dynamics around the turnover behaviour of their nurses and embark on strategies to retain their talent.

Job satisfaction is the most frequently studied psychological characteristic or affective state thought to be related to turnover or turnover intentions (Chiu & Francesco, 2003; Rosin & Korabik, 1995; Yin & Yang, 2002). This notion is supported by Lu et al., (2002), who stated that the recruitment and retention of nurses are two persistent problems associated with job satisfaction. Originally, remuneration defined as money and its equivalents, as an integral part of job satisfaction, was the main focus of determining turnover (Mobley & Griffeth, 1979; Price, 2001). However, research in the international arena indicates that there is

much more to employee turnover than pay. Undeniably, the other factors that lead to turnover in nursing include long working hours, heavy workloads, employee shortages, an inability to finish shifts on time, overtime and unpaid overtime, vacancies left unfilled, a lack of funds for training and development as well as a culture of nurses using their own time and money to undergo training (Newman, Maylor & Chansarkar, 2002).

Ongori (2007) stated that hospital managers should improve employees' quality of work-life through improving their working conditions and providing fair advancement and benefits. On the other hand, managers should also develop and communicate corporate vision, goals and values, create high quality work environments, offer more training and promotion prospects, involve employees in resolution making and pay them fairly and adequately. Preceding studies exposed a converse association exists between work-life rewards and turnover intention. Improving work-life rewards will eventually lead to improved job satisfaction and condensed turnover intention among workers (Huang 2001).

South Korean researchers Lee, Song, Cho, Lee and Daly (2003) conducted a study on 181 nurses, which showed that the most frequently mentioned reasons for nurses' intention to leave their jobs were work overload, rotating shifts (staff organisation) and interpersonal conflict, while a similar study by Cavanagh (1990) found that 232 US hospital nurses' turnover could be predicted by promotion, salary and communication. Cavanagh and Coffin (1992) reported job satisfaction and participation at work to be important variables in the turnover process. They found three variables significantly related to the intent to stay, namely job satisfaction, pay and advancement opportunity. The meta-analysis (129 studies relating to turnover

from 1978 to 2008) by Yin and Yang (2002) furthermore found that the strongest individual and organisational factors related to nurse turnover were job satisfaction, autonomy, advancement opportunity, job stress, pay, group cohesion (co-workers), marital status and educational level.

Lu, Lin, Wu, Hsieh and Chang (2002) found, in a sample of 2197 Taiwanese nurses, that 38.4% of the nurses could be classified as having the intention to leave the profession because of a lack of job satisfaction. Whereas, an earlier study by Stolte and Myers (1995) reported that salary and benefits, working hours, personal achievement, staff relationships and patient contact were among the most frequently mentioned reasons for female maternity nurses to leave. Cascio (2010) found that autonomy significantly explained nurses' decision to resign; various other job-related variables, such as role conflict, co-workers and supervisory support, did not significantly explain the variance in turnover intentions. These results are consistent with various other findings that the autonomy of nurses is one of the most important determinants of job satisfaction and, ultimately, of turnover intentions (Currivan, 1999; Yin & Yang, 2002). Seo, Ko and Price (2004) suggested that the level of job autonomy and job growth of hospital nurses is further restricted by physicians, who have the power to decide the scope of nurses' work. Thus, it is a well-known fact as has been experienced in the USA that nurses who receive more recognition and autonomy are more inclined to stay with their employers (Liebenberg, 2003). Dissatisfaction with promotion and training opportunities has a stronger impact on nurses' satisfaction than workload or pay (Shields & Ward, 2001). Retention policies, which focus heavily on improving pay for nurses, therefore have only limited success unless they are accompanied by improved promotion and training opportunities.

Although, the foregoing factors are by no means comprehensive of all previous research, it is clear that compensation (salary, pay and fringe benefits), advancement (promotion opportunities), autonomy and relationships with co-workers are most often mentioned as factors that influence nurses' decision to stay or leave their job. Promotion opportunities go hand in hand with the level of compensation and it therefore seems that compensation is the most prominent factor in nurses' employment turnover.

Turnover is also conceptualised in terms of voluntary and involuntary turnover, which are sometimes termed 'avoidable' and 'unavoidable' turnover, respectively (Price, 2001). Voluntary turnover (quitting) is defined as turnover initiated by the employee (which therefore does not include firings, lay-offs, within-agency promotions or death) (Razza, 1993). Consequently, Zeffane (1994) claimed that among those factors leading to voluntary employee turnover are external factors (such as the labour market, economic conditions, legislation and the political situation), institutional factors such as physical working conditions, pay, job skills and supervision. Moreover, there are employee personal characteristics such as intelligence and aptitude, personal history, sex, age and tenure and employee reactions to their jobs for example job satisfaction, job involvement and job expectation.

Meanwhile, notions do exist, as Lee, Mitchell, Wise and Fireman (1996) reported that 45% of departing nurses abandon their present employment without a job offer in hand. This notion is supported by a later study done by Mano-Negrin and Tzafrir (2001), which concluded that the turnover intention of hospital personnel is not preceded by a job search and does not significantly impact on turnover behaviour.

Empirical evidence on the extent that outside opportunities contribute to voluntary turnover is lacking.

Greyling & Stanz (2010) argue that the determinants of turnover can be classified into mainly individual and organisational factors. This assertion is theoretically supported by an earlier study done by Campion (1991), who reported that the decision of an employee to leave an organisation is a product or function of both individual and organisational determinants. As a result McCarthy et al., (2002) also state that individual factors refer to, for example, age, gender and educational level, while organisational factors refer to the work environment, job security and perceived status within a hospital.

2.3.3 Determinants of Nurse Turnover

Significant consideration has been devoted to understanding organisational, personal and economic aspects that impact turnover activities. Managerial policies and administrative settings have been explored as to their impact on job satisfaction, contemplating leaving and real turnover behaviour.

2.3.3.1 Job satisfaction and nurse turnover

Tzeng, (2002) described job satisfaction mechanisms as having eight satisfaction elements namely, extrinsic rewards, planning, domestic equilibrium, co-employees, communication, specialised prospects, recommendation and acknowledgement, and control/ accountability. Job dissatisfaction is being continually recognised as the motive for why most workers leave their professions (Lum et al., 1998; Tzeng, 2002). Taking into consideration the nationwide assessment of the National Health Service (NHS), Shields and Ward (2001) believe that job satisfaction is more significant than the desirability of external prospects when determining turnover. Low work fulfilment

was focused in young, recently trained and highly cultivated nurses and related with management, positive projections, occupation safety and quantity of time for scientific responsibilities.

Some studies suggest that certain moderators apart from external, personal and work related variables influence job satisfaction, turnover intention and turnover behaviour. Moore (2002) found that a sense of professionalism mediated intention to quit despite the impact of restructuring changes on hospital and nurse conditions which include poor management and communication style and burnout. Similarly, Angerami et al., (2000) determined that nurses' motives to remain in their jobs related to attachment to nursing, even though their work was not recognized and they were poorly paid.

2.3.3.2. Management style

Previous studies have established the significance of nursing management to job satisfaction. Bratt et al., (2000) discovered the consequence of nurse appearances, and work situation on job satisfaction of nurses in paediatric life-threatening maintenance units and the conclusions of the study settled that job stress and nursing governance were most significant. Moss & Rowles, (1997) added that management that encourages staff involvement stimulates retention, supported by reliable themes in the collected works relating to self-sufficiency, moral working relations and a management style that assists rather than give directions. Some interpretations view participative administration style as improving job satisfaction (Jone et al., 1993; Nakata & Saylor, 1994; Moss & Rowles, 1997). Boyle et al. (1999) observed the sound possessions of nurse executives' individualities of control, impact and management style, finding administrators' position influence and effect

over job harmonisation to have an undeviating association to intent to work in the respective organisations.

2.3.3.3. Empowerment and autonomy

Operational authorisation is the insight of the existence or absence of authorising environments in the place of work while emotional authorisation is the workers' psychosomatic understanding or response to these circumstances (Laschinger et al., 2004). Ironically, literature has confirmed that authorisation is related to job satisfaction, though a direct connection with nurse turnover was not resolute. In furtherance to the preceding views, Larrabee et al. (2003) determined that the main forecaster of intent to abandon the job, was work frustration and the foremost forecaster of job satisfaction was psychological empowerment.

2.3.3.4. Promotional opportunities

Occupational growth and life-long learning in nursing endorse job satisfaction, increased retention of nurses and allow sustained delivery of health care (Collins et al., 2000). Frustration due to lack of advancement and educational prospects has been revealed to have a stronger influence on employee turnover than the amount of work or remuneration (Shields & Ward, 2001). Multivariate analysis of data collected by Davison et al., (1997) in a longitudinal survey of nurses in one hospital indicated that predictors of intent to leave were the perception of little promotional opportunity, high routinisation, low decision latitude and poor communication. Therefore perceived interest in one's career development and feelings of being valued influence nurses' intent to stay (Yoder, 1995). Similarly, Szigeti et al., (1991) used correlational analysis to investigate the potential factors that relate to the desire of registered nurses (RNs) and licensed practical nurses (LPNs) to continue practising

in rural hospitals. It was observed in this study that overall job satisfaction and performance constraints were the only variables to make significant contributions to the prediction of turnover intention for both RNs and LPNs. Interestingly, satisfaction with promotion was the only work-related variable to make a significant contribution to the prediction of turnover intention for RNs.

2.3.3.5. Work schedules

In order to stimulate equilibrium between work and family, probable aids of self-scheduling schemes have been predictable, particularly for nurses who have duties such as young children (Hung, 2002). Extended shifts, overtime, weekends, nights, holidays and weekend overtime were established to be forecasters of projected turnover (Strachota et al., 2003). In the same vein, Vetter et al., (2001) pronounced that nurses can come up with their schedules that meet the desires of staff, endorsed high job fulfilment and upheld recruitment ethics on the unit. An earlier study done by Kane and Kartha (1992) found that nurses with division of labour had the maximum scores for job fulfilment and physical health standing. On the other hand, Bloom et al. (1992) employed analysis of variance to conclude that job allocation has a constructive influence on job fulfilment and maintenance when associating transformations amongst employees that are employed fully, part-time or on job sharing.

2.3.4 Individual factors and turnover

Positive socio-demographic features of employees influence their turnover decisions (Tai et al., 1998). There is a reverse association between employment period and turnover, this has been verified for numerous stages (Lowery & Jacobsen, 1984; McNeese-Smith & Van Servellen, 2000; Kiyak et al., 1997). Gray and Philips, (1996)

suggested that advanced nurses have better job contentment, efficiency and structural obligation. Meanwhile, Shader et al. (2001) bring into being that young nurses are the ones expected to abandon their jobs due to anxiety and looking for opportunities to enhance their job satisfaction. Conflicting to some studies, Chan and Morrison (2000) bring into being that there is no statistically significant variance in the percentage of stayers and leavers based on numerous demographic aspects including age.

Moreover, Bloom et al., (1992) state that employee turnover in America was recognised mainly to females parting for the period of child-bearing years. Strachota et al., (2003) did an investigation of 84 nurses who had willingly left their positions, 19 of whom specified the reason as household or aging parents. In an investigation of communal health nurses helping communal and small city areas, Henderson and MacLeod (2004) established that aspects such as age, withdrawal and household challenges and the economy affected intent to stay or leave, rather than work fulfilment or public gratification. Educational level is believed to impact turnover in that more highly educated individuals are more likely to quit seeking career advancement, especially if there are limited opportunities in their current organisation (Tai et al., 1998; Yin and Yang, 2002).

2.3.5 Economic factors and nurse turnover

Studies that comprise compensation as one element of job satisfaction are unreliable in their conclusions. For instance, salary does not have as solid an influence as work atmosphere (Irvine & Evans, 1995), salary is not a high importance (Frisina et al., 1988) and wage is not related with turnover (Michaels & Spector, 1982; Moore et al., 1999; Borda & Norman, 1997). Whereas, Shields and Ward (2001) established that

frustration with advancement had a greater influence than salary on intention to leave; so upgraded pay would only have partial attainment except supplemented by enriched prospects. Lum et al., (1998) brings into being that pay fulfilment interconnected greatly with condensed turnover intent, but also had a pathetic association intermediated through job fulfilment. Lu et al., (2002) offered matrix association coefficients amongst variables that specified a significant negative correlation among turnover intent and remuneration, as well as a significant association between wage and specialised commitment.

The foregoing studies reveal that there is limited and erratic indication to enlighten us whether other employment prospects are a determinant of nurse turnover. Price and Mueller (1981) proclaimed that when jobs are abundant, turnover is higher and when job opportunities are scarce, turnover is low. In addition to the above, Krausz et al., (1995) established that where several substitute job prospects are present; many employees favour an in-house transfer. Bloom et al. (1992) demanded that turnover is interrelated to other occupation prospects only in greater populace areas.

In summary, the aspects related to nurses' behaviour of abandoning their organisations, job dissatisfaction and turnover intention, are most reliably described as influencing turnover. Job satisfaction, turnover intent and turnover behaviour seem also to be prejudiced by certain mediators comprising expert assurance and personal character. Organisational features linked with workload, organisation style, authorisation and self-sufficiency, promotional chances and work timetables are assumed to subsidise to turnover. Hence, researchers propose that managerial involvements to increase quality of work life are authoritative for long-term purpose.

2.3.6. Consequences of nurse turnover

The turnover occurrence has momentous cost and other undesirable consequences for any organisation (Sempane, 2002). Losing workers that are trained may have troublesome consequences for most institutions. It may also add to amplified costs of recruiting and selecting the workforces (Greyling & Stanz, 2010).

2.3.7 Summary of turnover consequences

There is generally an agreement that unplanned nurse turnover is exorbitant as well as unfavourable for nurses and patients consequences. Scholars, (Bluedorn, 1982; Greyling & Stanz, 2010; Mobley, 1982) agree that adverse impacts relate to reduced staff self-esteem and efficiency. Financial costs of substituting individual nurses are being assessed; nevertheless, researchers are yet to provide confirmation in terms of incremental enrolment expenses and health care scheme expenses. Studies that scrutinise the influence of insufficient nurse enrolment and unfavourable work settings on nurse health and security outcome often do not contain variables open to nurse turnover. Likewise, limited researchers have so far gave conclusions that tie nurse turnover to quantifiable patient results.

2.3.8. Quality of Work-life and turnover intentions

Quality of work life indicates to the favourableness or unfavourableness of the work setting. A low Quality of Working Life (QWL) is critical for healthcare organisations to motivate and maintain skilled, dedicated and encouraged workers. Hsu and Kernohan, (2006) added that superiority of work-life aids a worker's satisfaction with employed life. It shows the relationship between employees and their physical, social and economic work environment. These include the job fit, working conditions, fair and adequate compensation, career development opportunities, task discretion,

involvement in policy making, job-related health and security, work stress, job protection, managerial and personal relationships and work-life balance (Adhikari & Gautam, 2010; Connell, 2009; Hsu & Kernohan, 2006; Mosadeghrad et al., 2011).

Adhikari and Gautam, (2010) further explain that QWL provides employees with the motivation and the opportunity to perform well. Cultivating workers' QWL is essential to increase their administrative efficiency (Dolan et al., 2008; Bragard et al., 2012; Nayeri et al., 2011). High QWL organizations' accomplish sound throughput and become highly economical. Constructive outcomes of QWL comprise condensed burnout and absenteeism, reduced turnover and upgraded employee job satisfaction (Amini & Mortazavi, 2013; Lee et al., 2013; Schmidt et al., 2013). Adhikari and Gautam, (2010) added that QWL improves workers' self-esteem through job gratification and humanising the work by allocating significant jobs, offering chances to improve human ability to implement well, ensuring job safety and sufficient remuneration and reimbursements and providing safe, healthy, participative and supportive employed settings. Improving nurses' QWL may result in a higher level of delivered quality of care to patients (Hsu & Kernohan, 2006).

2.4 Job satisfaction and turnover intention

In an organization, what makes an employee leave or intent to leave always becomes the big question for many organisations. Several studies have examined job satisfaction as an antecedent of turnover intentions (Mobley et al.,1979; Price and Mueller, 1981; Shore and Martin, 1989; Hellman, 1997; Ghiselli et al., 2001; McBey and Karakowsky, 2001). These studies, however, were conducted in the United States and Canada. The industries investigated were wide ranging covering health, military and food-service companies. Although job satisfaction has been

found to be a rather consistent predictor of turnover intentions, the strength of the satisfaction-intention to leave relationship varies according to each setting. In addition, little work has been undertaken using professional subjects within the South African context (Aryee and Wyatt, 1991; Chan and Morrison, 2000).

Job satisfaction may be defined as a pleasurable or positive emotional state resulting from the appraisal of one's job or job experiences (Dunnette and Locke, 1976). This positive feeling results from the perception of one's job as fulfilling or allowing the fulfillment of one's important job values, provided these values are compatible with one's needs (Dunnette and Locke, 1976). Given that values refer to what one desires or seeks to attain (Locke, 2009), job satisfaction can be considered as reflecting a person's value judgment regarding work related rewards.

Locke and Henne (2006) defined job satisfaction as the pleasurable emotional state resulting from the achievement of one's job values in the work situation. Two important groups of work rewards that have been identified include task and organizational rewards. Task rewards refer to those intrinsic rewards directly associated with doing the job (Katz and Maanan, 2007; Mottaz, 1988). These include such factors as interesting and challenging work, self-direction and responsibility, variety and opportunities to use one's skills and abilities. Organizational rewards, on the other hand, refer to the extrinsic rewards provided by the organization for the purpose of facilitating or motivating task performance and maintaining membership (Katz and Maanan, 2007; Mottaz, 2008). These represent tangible rewards that are visible to others and include such factors like pay, promotions, fringe benefits, security and comfortable working conditions. Hence Loscocco (2009) postulate that

every working person has a certain order of priorities with regard to what he or she seeks from work.

It is generally assumed that individuals value economic (extrinsic) as well as intrinsic job reward. Some workers may strongly emphasize both types of rewards, some may place little value on either and others may emphasize one type and deemphasize the other. Nevertheless, both forms of rewards contribute to job satisfaction (O'Reilly and Caldwell, 1980). A job that entails high pay, high security, greater promotional opportunities, interesting work and fair and friendly supervision, all of which is judged as a way to achieve work and non-work goals, should lead to positive feelings of well-being. Meanwhile, research by Spector (1997) and Hirschfeld (2000) indicate that the different aspects of job satisfaction could be split according to Herzberg's two dimensions.

The intrinsic satisfaction refers to job tasks and job content such as variety, autonomy, skill utilization, self-fulfillment and self-growth. And at the same time, Buitendach and Witte (2005) state that extrinsic motivation refers to other factors such as pays, co-workers and work conditions. Intentions are, according to researchers such as Fishbein and Ajzen (1975) and Igbaria et al. (2005), the most immediate determinants of actual behavior. The validity of studying intentions in the workplace can also be drawn from Sager (2011) longitudinal study of salespeople, in which intention to quit was found to differentiate effectively between the leavers and workers that stay.

However, while it is reasonable to argue that intentions are an accurate indicator of subsequent behavior, researchers still do not know what determines such intentions. Intention to turnover refers to an individual's perceived probability of staying or leaving an employing organization (Cotton and Tuttle, 2006). Tett and Meyer (1993), on the other hand, referred to turnover intentions as a conscious and deliberate willfulness to leave the organization. Barak et al. (2001) in their review of the outcomes before or after turnover, they argued that many studies use intent to leave rather than actual turnover as the outcome variable due to two main reasons.

Firstly, there is evidence to indicate that workers typically make a conscious decision to do so before actually leaving their jobs. This relationship is supported by the attitude-behavior theory (Fishbein and Ajzen, 1975), which holds that one's intention to perform a specific behavior is the immediate determinant of that behavior. Secondly, it is more practical to ask employees of their intention to quit in a cross-sectional study than actually tracking them down via a longitudinal research to see if they have left. In addition, actual turnover may be more difficult to predict, as there may be other factors such as employment alternatives that affect a person's turnover behavior. According to Moore, (2002), an unfavorable economy may reduce a person's flexibility to move elsewhere leading to lower correlations between intent to leave and actual turnover whilst the job satisfaction-intention to leave relationship tend to be stronger when greater economic choice existed.

Job satisfaction is one the factors that contribute to people's intention to quit their jobs (Moore, 2002). However, it is important both manager's and the individual's perspective to understand the factors that mediate the relationship between job

stress and turnover intention. Although a worker's intention to leave is considered a sign of quitting, there are no consistent findings that regard to its value as a predictor of the actual turnover to the workers.

Numerous researchers (Bluedorn, 2002; Kalliath and Beck, 2001; Kramer et al., 1995; Price and Mueller, 1981; Saks, 1996) have attempted to answer the question of what determines people's turnover intention by investigating possible previous circumstances that lead to employees' intentions to quit. So far, there has been little consistency in the findings, which is partly due to the diversity of constructs included by the researchers and the lack of consistency in their measurements but also relates to the heterogeneity of populations sampled. Social support has been shown to play an important role in mitigating intention to quit, although not all findings have been in agreement. For example, Moore (2002) found that social support from supervisors reduced the level of nurses' burnout and indirectly, through reduced levels of burnout, reduced nurses' intention to quit. On the other hand, Munn et al. (1996), in a study of American child life specialists, found lack of supervisor support was the best predictor of job dissatisfaction and intention to leave a job. While Hatton and Emerson (1998) found that actual staff turnover was predicted in part by low levels of support from superiors.

However, other studies Rahim and Psenicka (1996) have failed to find a moderating effect for social support in the relationship between job stressors and turnover intention. Other scholars such as Kelly and Cross (2005) have found that rather than supervisors' support, it is the support gained from talking with peers, family and friends that is frequently cited as a source of stress reduction. Consistent with these

are Freddolino and Heaney (1992) who found out that peer social support was associated with higher job satisfaction among direct care staff and home managers for intellectually disabled clients, while turnover intention was associated with the presence of social undermining by co-workers and provider agencies.

2.5 Individual learning and turnover intentions

Although education is amongst the most extensive and fastest-growing involvements in Human resource development policies (MacIntosh & Doherty, 2010), the background of learning connected to its collaboration with turnover intention has not been elucidated extensively (Egan et al., 2004; Chiu & Francesco, 2003). In the framework of social exchange theory, workers who obtain adequate and applicable education prospects are unwilling to vacate their organizations (Spector, 1997). Thus, if personnel identify that they have extra training prospects, it may effect in lessening their turnover intent (Mobley & Griffeth, 1979; Townsend, et al., 2007; Cavanagh & Coffin, 1992; Adhikari & Gautam, 2010).

Similarly, Connell, (2009) conveyed that job learning is adversely related with turnover intent. Mosadeghrad et al., (2011) recommended that job properties, together with managerial support, training, authorization, and rewards, upsurge workers' job satisfaction, emotional commitment and decrease their turnover intention. Furthermore, Chan and Morrison, (2000) designated that capability growth and knowledge sharing have an adverse consequence on turnover intention. Although there is inadequate empirical literature to support an association between structural learning culture and turnover intent, the study that has been done back this association. Based on Bester (2012), an organizational ethos that inspires workers' self-development may diminish individuals' need to hunt for employment somewhere

else if they are obtaining new talents and capabilities that allow them to upsurge their self-efficacy.

2.6 Conclusion

The present chapter has shown that quality of work-life and job satisfaction has an influence on turnover intention to some extent. Job satisfaction has diverse aspects such as, compensation, management, co-workers, advancement and the work itself that may be prejudiced by individual dissimilarities within personalities. The next section will focus on the research methodology of the study which entails of the research design, the population and sample size of the study, the research instrument, data collection and data analysis.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

Methodology refers to the body of methods used in a particular activity or research process. Research methodology is important in a research due to the following reasons; it summarises, the research design employed, how the population of the study was drawn, the sampling techniques used, data collection methods and the techniques used to analyze the data. According to Hair, et al., (2008) the quality of collected data is only as good as the methodology employed to collect it. So any loopholes in the methodological procedures can cause the data collected to be questionable, that is, the methodology may fail to yield the desired outcome and may in fact yield unnecessary outcomes outside the scope and objectives of the study.

The previous chapter focused on the literature review of the four variables of the study; that is, learning, advancement quality of work-life and turnover intentions. Thus, this chapter will elaborate on the methodological details of the study. It comprises of research design, population and sample of the study, development of questionnaires, research instruments used, data analysis details, delimitations of the study and the ethical considerations of the study.

3.2 Research Design

A research design is the theoretical composition within which the study will be carried out and its function is to provide for the collecting of significant information at the minimum probable expense, time and effort (Kumar, 2005). Cooper and Schindler (2008) propose that the research design denotes to the strategies that support the systematic management of data collection. Cant et al., (2005) further highlight that the research design is the most important part of the research and it has to be well organized for a research to be effectively and efficiently conducted, for it to yield meaningful results. Additionally, a research design is the precise description of the most sufficient procedures to be carried out in order to investigate a specific hypothesis under circumstance (Bless et al., 2006).

Studies in which we record the number of objects recalled, response times, or the numbers of destructive acts are all illustrations of quantitative research whereas, in qualitative research the information obtained from respondents is not expressed in numerical form. The researcher employed a descriptive research design in gathering data from nurses in selected hospitals in Amathole district in the province of Eastern Cape. Welman et al., (2006) noted that there are three types of research designs, that is, exploratory, descriptive and causal research. Exploratory is defined as the

initial research into a hypothetical or theoretical idea. This is where a researcher has an idea or has observed something and seeks to understand more about it whereas causal research explores the effect of one thing or another and more specifically, the effect of one variable on another. The research is used to measure what impact a specific change will have on existing norms and allows market researcher to predict hypothetical scenarios upon which a company can base its business plan.

For the purpose of this study descriptive research was used. Descriptive research is appropriate when the research objectives include determining the degree to which variables are associated and making predictions regarding the occurrences of phenomena under study which is the general objective of this study. Descriptive research is used to answer questions about relationships among measured variables with the purpose of explaining, predicting and controlling phenomena. Therefore, descriptive research design was used in this study. Data gathering was done through the use of self-administered questionnaires which were distributed to nurses according to their areas of specialties during break and lunch hours.

3.3 Population and Sample Frame

In research, population refers to the whole group from which the sample is drawn. Hair et al., (2008), defines population as the identifiable set of elements of interest and relevance to the researcher and to the research problem. The opinions, behaviour, preferences and attitudes of the population elements should be useful in providing information as to whether or not there is an influence between their Quality of Work-Life, learning opportunities and advancement opportunities on their turnover intentions. In the research at hand, the population constituted all 331 employees in selected hospitals from Amathole District in Eastern Cape. The hospitals in which the

research was conducted include the Victoria hospital in Alice, Fort Beaufort hospital and Grey hospital in King Williams town. The HR departments of hospitals confirmed that they have a total of 90, 111, and 130 employees respectively. The total number of employees from the selected hospitals is 331 employees.

3.3.1 Sample

Researchers normally use a sample, which is a small part of the population with the similar characteristics as those in the whole population. According to Welman, et al., (2006), a descriptive sample is a small image of the population. Selection of a sample was done carefully to allow generalisability of the results as it is usually representative of the whole population and possess the exact properties of the population. The main idea of sampling is that by choosing some features of a population the researcher can draw assumptions about the whole population. As quoted by Welman et al., (2006), researchers should not use any sample with less than 15 units of analysis, but preferably one with more than 30 units of analysis. The following subdivisions offer details on the sample size, sampling procedure and sampling procedure used in this study.

The sample size used in the research was calculated using the Raosoft Sample Size Calculator (<http://www.raosoft.com/samplesize.html/>). The sample size n and margin of error E are given by:

Where N is the population size, r is the fraction of responses that you are interested in, and $Z(c/100)$ is the critical value for the confidence level c . Using 5% margin of error, 90% confidence level and an expected response distribution of 50%, the minimum recommended sample size of 150 respondents was determined. However, the researcher distributed 160 questionnaires to employees in the hospitals and received 159 questionnaires back giving a response rate of 99.4%.

3.3 2 Sampling Procedure

Sampling procedure refers to the method which is used to draw the sample as well as the way in which the sampling units will be selected. According to Welman et al., (2005), there are two types of sampling procedures, probability sampling and non-probability sampling. Probability sampling is based on randomization; while non-probability sampling is done without randomization. Thus, probability samples reduce sampling error. In probability sampling, every element in the population has an equal and known non-zero probability of being included in the sample. According to Churchill and Brown (2007) probability sampling enables us to estimate sampling error, that is, the unrepresentativeness of a sample. In non-probability sampling, every element in the population does not have a non-zero probability of being included in the sample. The present research made use of the probability sampling technique to select respondents from the whole population. This enabled all the respondents to have equal chances of being included in the sample. The researcher chose the probability sampling method because of the following reasons;

- The use of probability sampling method is consistent with the sampling methods used in previous empirical studies;
- With probability sampling, each of the population elements has a known, non-zero chance of being comprised in the sample. In non-probability sampling the selection of the respondent is not known and for this reason the researcher cannot be certain that the sample is a descriptive of the population (Loubser, 1999).

3.3.3 Sampling Technique

The present research used probability sampling procedure and specifically stratified and simple random sampling. The population was grouped into homogeneous sub-

groups based on their areas of speciality. Strata were formulated based on the different departments in the health institutions. Health institutions have got various departments, therefore, the sample for this study was derived from the various departments of the institutions which consists anaesthetics, elderly services department, maternity departments, etc. Simple random sampling was used and every unit of the population had an equal chance of being selected within the Strata. Cooper and Schindler (2008), define simple random sampling as a probability sampling procedure in which each population element has a known and equal chance of being selected. The reasons for selecting this simple random sampling technique were that:

- Simple random sampling is commended for its simplicity in presentation as well as its capacity to obtain a descriptive sample with partial selection preconceptions.
- It is easy to follow, less expensive and quick to implement.

3.4 Data Collection

The researcher made use of a self-administered questionnaire in collecting data. As it was defined by Hair, et al. (2008), a questionnaire consists of a set of questions and scales to draw together primary data. Leung (2001) describes a questionnaire as a brochure of standardised process, pre-coded and comprising both closed-ended and open-ended questions; and it can be viewed as a data collection instrument that sets out problems to be asked in a prescribed way in order to produce anticipated evidence. The self-administered questionnaire involves a straight and a one on one consultation between the investigator and the respondent (Cooper & Schindler, 2003). One hundred and sixty employees were targeted in

areas which have been classified according to departments. The researcher personally requested permission from the Human Resource Manager of the respective hospitals to distribute the prints of the questionnaire. Questionnaire distribution was done in such a way as to cause no disruption to work performance. The researcher distributed the questionnaire to the respondents during breaks (e.g. lunch time) and also asked the targeted respondents to deposit completed questionnaires at the different receptionists' counters.

Cover letters, affixed to the questionnaire, explained the nature of the study, and assured respondents of the confidentiality of any information provided. Respondents were also provided with detailed instructions on the completion and return of questionnaires. The rationale behind providing clear instructions and assuring confidentiality of information was to significantly reduce the likelihood of obtaining biased responses (Sekaran, 2003). Of the 160 questionnaires sent out, 159 were returned, fully completed hence there were no illegible and unusable questionnaires, giving a response rate of 99.4%.

3.5 Description of the Instrument

The questionnaire was grouped into five sections A to E. Section A was concerned with the demographic information of respondents, Section B tested the level of learning and advancement opportunities given to nurses in their organisations, Section C was concerned with whether or not the respondents had Quality of Work-Life, the fourth section (Section D) dealt with the level of Job satisfaction the nurses are obtaining in their respective organisations, and finally Section E covered turnover intentions of nurses. The responses were obtained in the form of a five point likert scale.

The final assessment of the utility questionnaires was acquired from a pilot study. Conferring to Churchill (2002), pretesting is the trying of the questionnaire using small sample of participants in order to recognize and eliminate possible harms. During the pilot test, preliminary questionnaires were given to twenty (20) respondents. The returned questionnaires were then tested for signs of monotony on the side of the respondents revealed in the number of unfinished questionnaires. Other signs of boredom comprise missed questions or encircling the same response for all the questions in a group. In adding, the pre-test enabled the researcher to assess the time needed by the respondents to fill in the questionnaires, to observe clarity of instructions and to acquire the information to put in the cover letter. Pre-test was done in an effort to identify the questionnaire flaws before the official study was conducted. The questionnaire was then reviewed accordingly, compelling specific responsiveness to the weaknesses and complications recognized during pilot testing. The reviewed instrument was then distributed to the respondents. The researcher pre-tested the questionnaire for the following reasons:

- 1) To enable the researcher to confirm the intended statistical analysis measures thereby giving the researcher the chance to assess the usefulness of the intended statistical and analytical measures of the information. This makes provision for the researcher to effect changes in the methods of data collection to enhance the effectiveness of the study.
- 2) Helps in overcoming unexpected problems since the researcher will have the chance to restructure some unclear parts of the study that are identified by the pilot study.

3) To save on time and money since pre-testing usually gives the required information for the researcher to make constructive decisions on whether to carry on with the study or not (Churchill, 2002).

3.5.1 Biographical Questionnaire

A biographical questionnaire lobbying information on respondents' gender, age, marital status, and education level was assembled. The data with detail to these biographical questions was consequently graphically presented and discussed to make available an indication of the most significant results on these subjects.

3.5.2 Quality of work-life questionnaire

Quality of Work-Life Questionnaire was developed as a reliable measure for work-life rewards by Mohammad (2003). The questionnaire consists of 18 items divided into nine dimensions. (that is, two questions in each dimension)

Quality of Work-Life Questionnaire is a self-scoring questionnaire. Answers to each of the 18 objects are evaluated using a five-point measures with the options ranging from strongly agree to strongly disagree. Adhikari and Gautam, (2010) obtained a Cronbach alpha of 0.75 in a study of 50 security guards in assessing the quality of their work-life in terms of protection. Several studies have examined the reliability (alpha coefficients) of the QWLQ. Mohammad, (2003) reported that the average Cronbach's alpha levels for all these questions were above 0.91. Alphas that exceeded 0.70 indicate sufficient evidence in support of internal consistency.

3.5.3 Dimensions of learning questionnaire

Watkins & Marsick (1997) developed the dimensions of the learning organisation questionnaire. The questionnaire consists of 43 items divided into seven dimensions. (that is, six questions in each dimension except for aspect of continuous learning which has 7 objects). Yang (2003) showed a comprehensive series of investigative

and confirmatory factor that the DLOQ can be summarised to 21 items with three questions for each of the seven measurements. The tool has been confirmed by numerous empirical studies (Egan et al., 2004; Wang, Yang & McLean, 2007; Zhang Zhang & Yang 2004) and its internal consistence reliability founded on these studies shows, correspondingly an overall Cronbach's alpha coefficient of 0.89, 0.94, 0.79.

DLOQ is a self-scoring questionnaire. Answers to each of the 21 are evaluated by means of a 5-point scale with the options: 1 = strongly agree, to strongly disagree= 5

3.5.4 Minnesota satisfaction questionnaire

The Minnesota Satisfaction Questionnaire (MSQ) is one of the most popular methods commonly used in job satisfaction research. It was established by Weiss, Dawis, England and Lofquist in 1967.

The Minnesota Satisfaction Questionnaire (MSQ) was used to collect data about the job satisfaction of contestants in this study. It comprises of 20 items and uses a 5-point Likert type response layout.

The Minnesota Satisfaction Questionnaire comprises of twenty (20) objects that measure job satisfaction. Weiss et al., (1967, p.18) wrote, "The results of these studies ... indicated that the MSQ measured satisfaction in accordance with expectations from the Theory of Work Adjustment"; therefore, the overall job satisfaction scale had worthy construct validity. According to Cook et al., (1981) the MSQ's internal consistency fluctuated from 0.84 to 0.91 for the intrinsic subscale, 0.77 to 0.82 for the extrinsic subscale. Test-retest consistencies of between 0.70 and 0.80 are conveyed by Cook et al., (1981) using an alpha coefficient of 0.96 (Rothmann, Scholtz, Fourie & Rothmann, 2000). Similarly, Janseen, (1999) report a

Cronbach alpha of 0.80 and 0.84 for the subscales in a study of one hundred and seventy soldiers and electricians.

3.5.5 Staying or leaving index (SLI)

Turnover intentions was measured with four items from the SLI (Bluedorn, 1982), which is one of the few processes of turnover intent that has been certified (Sager et al., 1998). SLI is commonly used in organisational research and has reliably retained reliability and construct validity as indicated by co-efficient alpha levels above 0.80. Mueller and McCloskey (1990) conveyed a Cronbach alpha of 0.74 and 0.80 in a study of 170 teachers. Similarly, Shields and Ward (2001) attained a Cronbach Alpha of 0.92 on the sample of fifty (50) Eskom engineers in Gauteng Province in South Africa. Turnover intention was measured with 4 items using a 5-point Likert scale, answers extending from strongly disagree=1 to strongly agree=5

3.6 Validity and Reliability

Saunders, et al., (2003) pointed out that validity, reliability and errors are used in order to verify the quality of the composed data. Stages of validity and reliability are engaged by the researcher to make sure the reliability of the results and deductions of this study.

3.6.1 Reliability

Reliability is the degree to which other administrators of the similar tool have found the same results, and calculating reliability can be done using the split half technique, test re-test process as well as finding a Cronbach's Alpha value of at least 0.6 from the data if the other approaches cannot be useful (Cooper & Schindler, 2003). Babbie and Mouton (2002) recommended the succeeding steps to be monitored to warrant reliability of the data collected in a study:

- 1) Use the pilot study to pre-test the research instrument in the survey development stage.
- 2) Discuss the scope of the study and solicit advice from senior researchers who have prior experiences in similar studies.
- 3) Perform a complete assessment of the previous studies in the field of interest.

In the present study a reliability exploration was used on all the scales of the tool using the Cronbach's Alpha. The questionnaire used to measure learning and advancement opportunities had a Cronbach Alpha value of 0.84. The questionnaire used to measure quality of work life had a Cronbach Alpha value of 0.95. The questionnaire used to measure Job satisfaction of personnel had a Cronbach Alpha value of 0.83 while the questionnaire used to measure turnover intention of employees had a Cronbach Alpha value of 0.84.

3.6.2 Validity

Validity is the degree to which the researcher's outcomes perfectly symbolize what is actually happening in the circumstances (Collis & Hussey, 2003). According to Cooper and Schindler (2008) validity warrants that an instrument measures what is supposed to be measured. Validation encompasses telephonically communicating a portion of the respondents plotted by every field worker, to certify that the original interview was directed properly.

The researcher used the next steps to make sure the validity of the study as Cooper and Schindler (2003) propose, with the help of statistical analysis and a panel of specialists:

- 1) Evaluated the research instrument for theoretical clarity
- 2) Used a pilot study to pre-test the research instrument

- 3) Used sampling procedures in the form of probability approaches to ensure external population validity through the use of self-administered questionnaires which normally have a high reaction rate.

3.7 Bias

Conferring to Cooper and Schindler (2003), the common errors are response and non-response errors and these have an influence on the quality of information collected. It is the obligation of the researcher to make sure that research mistakes are kept at a minimum. In adding, Babbie and Mouton (2002) suggest that non-response mistakes happen when some features or respondents of a sample are not communicated provide imperfect answers or completely do not answer to any of the survey questions probed. The researcher minimized the level errors by providing clear instructions to the respondents.

3.8 Data analysis

According to Sharp, et al., (2002) analysis refers to the collection and arranging of data to produce understanding. The returned questionnaires were reviewed to control their level of suitability and then coded. The information was transferred to an Excel sheet. For the commitment of analysing the research hypotheses, a number of statistical methods were employed. These comprised both descriptive and inferential statistical methods as described below.

3.8.1 Descriptive statistics

Descriptive statistics refers to the approaches used for organising, summarizing and presenting data in an informative way (Lind et al., 2008). In addition to that, (Sekaran, 2003) added that it comprises the analysis of data using frequency distribution, distributions of dependent and independent variables and measures of

central tendency and variability and to find a feel for the data. The outcome of the biographical questionnaire was constructed on the frequencies and percentages found based on the sample characteristics.

3.8.2 Inferential statistics

Inferential statistics include the procedure of estimating a property of a population on the basis of a sample (Lind et al., 2008). Inferential statistics allow the researcher to present the data obtained in research in a statistical format to facilitate the identification of important patterns and to make data analysis more meaningful. According to Sekaran (2003), inferential statistics are employed when generalizations from a sample to population are made. The statistical methods which were used are done on the SAS 9.1 Version. SAS (Statistical Analysis System) is an integrated system of software products by SAS Institute Inc which enable programmers to perform statistical analysis. Where many other languages refer to tables, rows and columns, SAS uses the terms data sets, observation and variables. SAS was used in this study to analyze data. It provides for all other statistical analysis in this study as follows:

- The Cronbach's Alpha correlation

The Cronbach's Alpha correlation coefficient is used for scale data and indicates if the items are measuring the same variable (Burns & Burns, 2008:417). In other words, the Cronbach's Alpha correlation coefficient indicates how well the items in a set are positively correlated to one another (Sekaran, 2003:308). According to Hair, et al., (2006) reliability is considered an assessment of the degree of consistency between multiple measurements of a variable. It is a measurement concept that represents the consistency with which an instrument measures a given performance or behavior. A

measurement instrument that is reliable will provide consistent results when a given individual is measured repeatedly under near identical conditions. The diagnostic measure used is the reliability coefficient that assesses consistency of the entire scale, namely the Cronbach's Alpha.

- Pearson correlations

The present study used Pearson correlation coefficient to determine whether a statistically significant relationship exists between quality of work-life, job satisfaction, learning and advancement and turnover intentions. Cohen & Swerdlik (2002) posit that the Pearson Correlation Coefficient is a widely used statistic for obtaining an index of the relationships between two variables when the relationships between the variables is linear and when the two variables correlated are continuous. The Pearson Correlation coefficient is, therefore, suitable for the purpose of the present study since the study attempted to describe the relationships between the study variables.

3.11 Ethical considerations

The researcher asked for approval from the Human Resource Department of the respective hospitals to conduct the research. The researcher provided the respondents with the important information about the study orally and also a covering letter that escorted the questionnaire. Privacy of information was also guaranteed as the questionnaire was not requiring respondents to fill in their names. No recognising information (such as name) was chronicled to warrant secrecy. Respondents were provided with envelopes to ensure confidentiality. Also, they were given information on the research and its processes, the motives of the study and what was anticipated of them as well as debriefing them on the results of the study. Involvement was voluntary and there was no discrimination, either of race, sex or

ethnicity. Also, individuals were not forced to answer questions which they were uncomfortable with.

In totaling, the upkeep of the researcher's impartiality was warranted during the data analysis stage in order to avoid distortion of the data collected, which included not being discriminating about which data to report or where suitable, eluding misrepresentation of the data's statistical accuracy.

3.12 Summary

The research design employed in the current research was explained in this episode. More precisely, how the sample was drawn, the instruments used and the justification why they have been used, as well as the statistical techniques used in testing the study hypotheses were conferred. The next chapter will show the results that have been found using this method.

CHAPTER 4: DATA ANALYSIS

4.1 Introduction

Data analysis is the analysis of research findings. This chapter represents the outcome from the study piloted and looks at the descriptive statistics of the sample and hypothesis testing in response to the questionnaires. The outcomes are

arranged out using tables, figures, statistical summaries and graph distributions formats to enable easy understanding of respondent characteristics.

4.2 Demographic Results

Demographic information is necessary in a study as it gives the researcher a picture of the general profile of the respondents. The demographic variables under consideration are: age, gender, marital status, presents of children and educational qualification.

4.2.1 Distribution of respondents by gender

Figure 1: Gender distribution

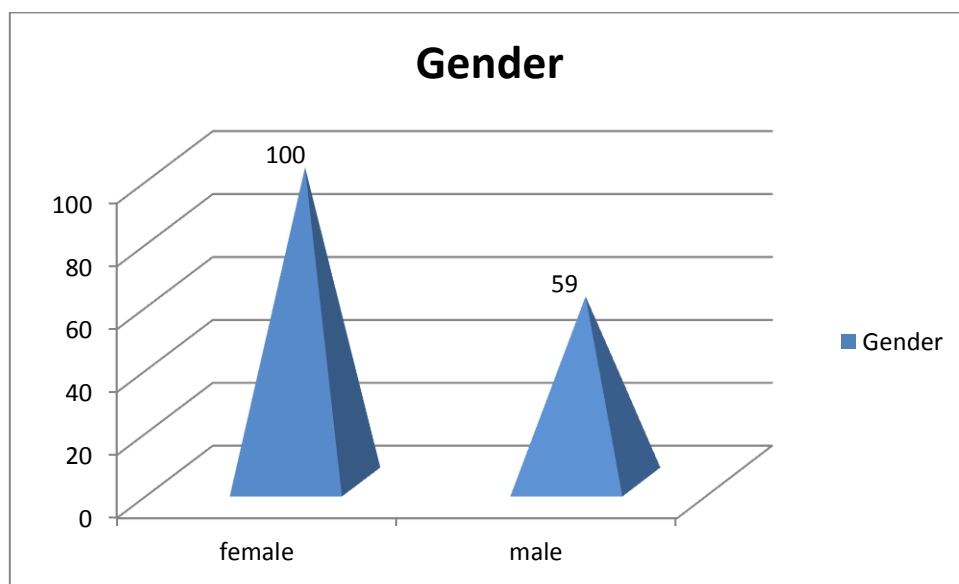


Figure 1 above shows the distribution of respondents by gender. The majority of the respondents (63%; n=100) were female employees and 37% (n=59) were male respondents.

4.2.2 Distribution of respondents by age

Figure 2: Age distribution

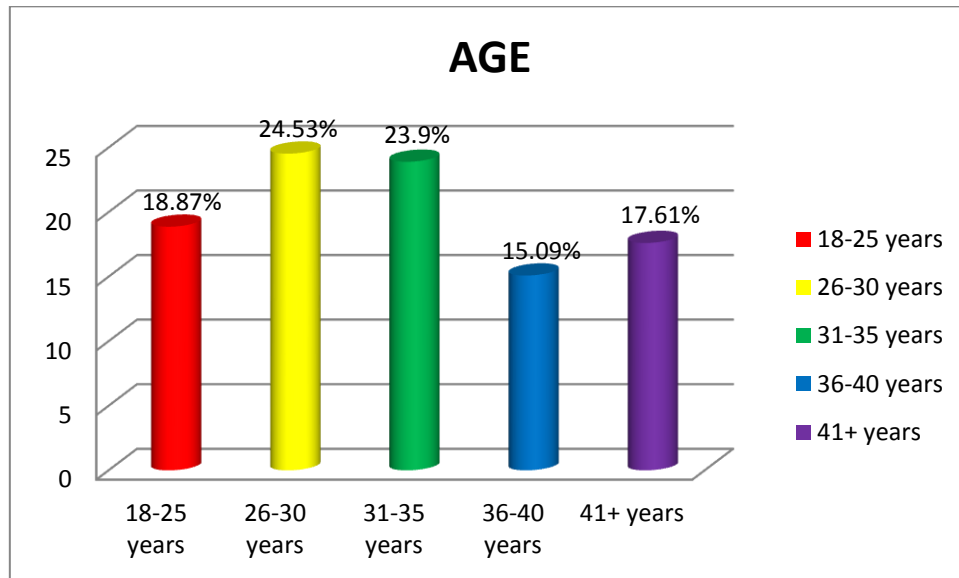


Figure 2 above shows the distribution of respondents in relation to their age. The majority of the respondents (24.53%, n=39) are in the age group 26-30 years, while 23.9% (n=38) are in the age group 31-35 years. Thirty respondents (18.87%) fall in the age category 18-25 years, and 17.61% (n=28) of the respondents are in the age group of more than 41 years old and a further 15.09% (n=24) of the respondents are in the age group 36-40 years old.

4.2.3 Distribution of respondents with children

Table 1 below shows the distribution of respondents with children. The majority of the respondents (64%; n=101) had children and 36% (n=58) did not have children.

Table 1: Children distribution

Frequency	Percentages (%)
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Number of respondents with children	101	64
Number of children without children	58	36
Total	159	100

4.2.4 Distribution of respondents by marital status

Figure 3: Marital status distributions

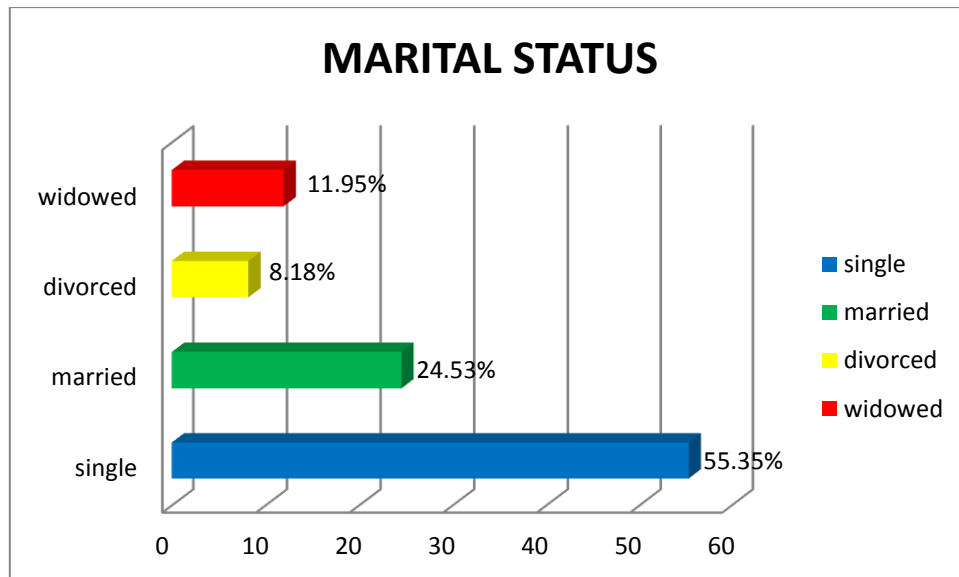


Figure 3 above shows that the majority of the respondents, (n=88) or 55.35% are single employees. Married respondents composes 24.53% (n=39) of the sample and widowed respondents composes of 11.95% (n=19). The last group shows that 8.18% (n=13) of the respondents are widowed.

4.2.5 Distribution of respondents by educational qualification

Figure 4: Educational qualification distributions

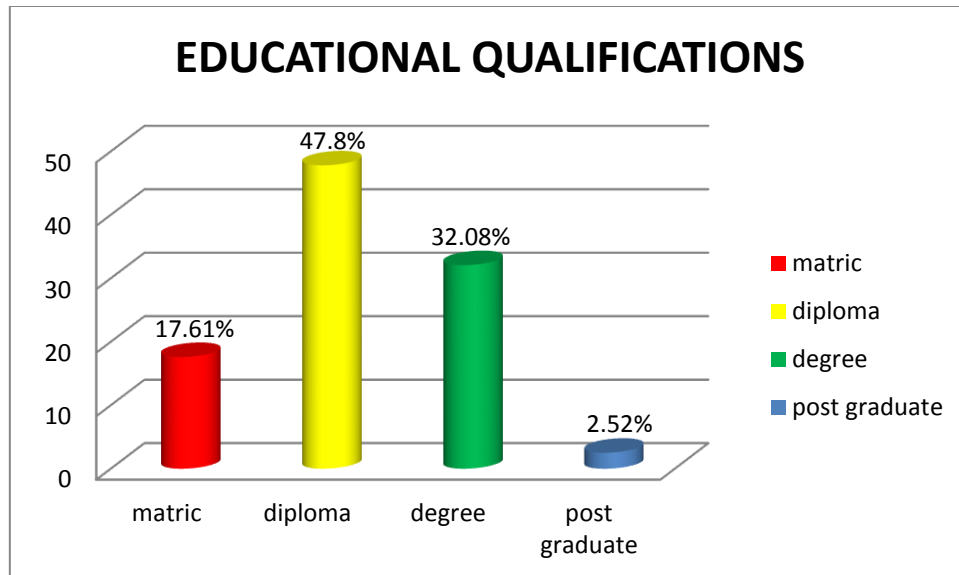


Figure 4 above shows the distribution of respondents in relation to their educational qualification. The majority of the respondents (47.8%, n=76) have a diploma while 32.08% (n=51) have a degree. Twenty-eight respondents (17.61%) had a matric educational qualification while four respondents (2.52%) had post graduate education qualification.

4.2.6 Learning and advancement opportunities

This section focuses on the respondents' level of agreement towards the availability of learning and advancement opportunities in their respective hospitals. Specifically, this section analyses whether respondents agree or disagree with viewpoints. For instance, "In my organization people are given time to support learning".

4.2.6.1 In my organization people are given time to support learning.

Table 2: Given time to support learning

	Frequency	Percentages (%)
Strongly agree	0	0
Agree	0	0
Not sure	85	53.46
Disagree	71	44.65
Strongly disagree	3	1.89
Total	159	100

Table 2 shows that most of the respondents disagreed that they are given time to support learning in their organisation. The majority, 85(53.46%) of the respondents are not sure whether they are given time to support learning or not, 71(44.65%) disagreed and 3(1.89%). All the respondents showed that they are not given time to support learning in their organisations.

4.2.6.2 When I do a good job, I receive recognition for future work tasks

Table 3: Recognition

	Frequency	Percentages (%)
Strongly agree	0	0
Agree	79	49.69
Not sure	17	10.69
Disagree	63	39.62
Strongly disagree	0	0
Total	159	100

Table 3 shows that most of the respondents, 79(49.69) agreed that they receive recognition after doing a good job while some respondents, 17(10.69) are not sure whether they receive enough recognition or not. 63(39.62%) of the respondents disagreed that they are getting recognition after doing a good job.

4.2.6.3 In my organization, Leaders mentor and coach those they lead

Figure 5: Mentoring

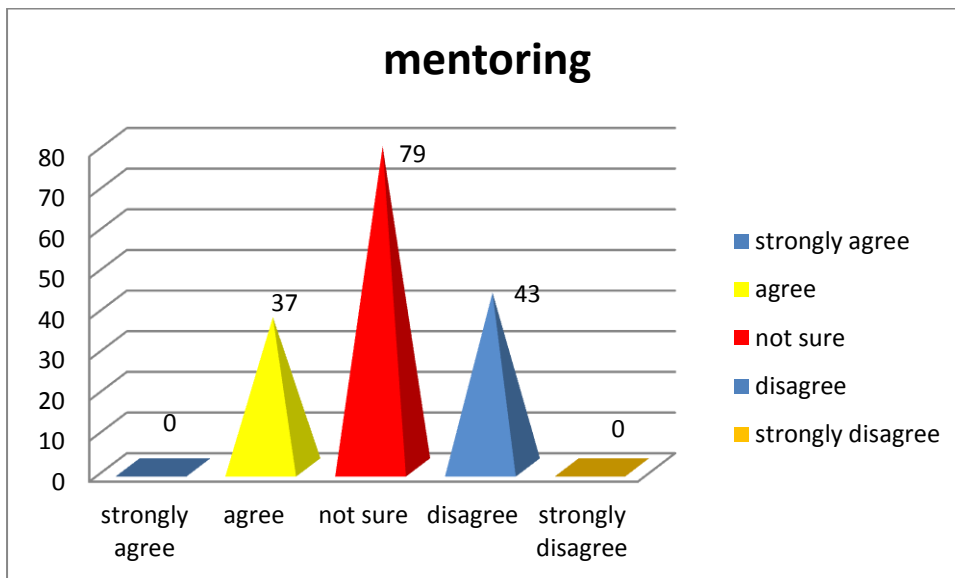


Figure 5 shows that 37(23.27%) respondents agreed that their leaders mentor and teach them while 79(49.69%) are not sure whether their leaders mentor them or not. Other respondents, 43(27.04%) disagreed with the idea that their leaders mentor and lead them.

4.2.6.4 In my organization, leaders generally support requests for learning opportunities and training

Table 4 shows that 22.64 % (36) respondents agreed that their leaders support the requests for learning opportunities and training while 50.31% (80) are not sure

whether their leaders support learning or not. The rest of the respondents, 25.16% (40); 1.89(3) disagreed that their leaders support learning.

Table 4: Requests for learning

	Frequency	Percentage (%)
Strongly agree	0	0
Agree	36	22.64
Not sure	80	50.31
Disagree	40	25.16
Strongly disagree	3	1.89
Total	159	100

4.2.7 Quality of work-life

This section focuses on the respondents' level of agreement towards the availability of quality of work-life in their respective hospitals. Specifically, this section analyses whether respondents agree or disagree with viewpoints. For instance, "The safety of workers is a high priority with management where I work".

4.2.7.1 The safety and health conditions where I work are good

Table 5: Safety of workers

	Frequency	Percentage (%)
Strongly agree	2	1.26
Agree	0	0
Not sure	3	1.89
Disagree	154	96.86
Strongly disagree	0	0
Total	159	100

Table 5 above shows that the majority of the respondents, 96.86% (154) disagreed with the statement that safety and health conditions where they work are good, while only 1.26% (2) respondents agreed that the safety and health conditions are good to them. The remaining respondents 1.89% (3) are not sure.

4.2.7.2 The chances for promotion are good

Table 6: Promotions

Table 6 shows that the majority of the respondents, 81.13% (129) respondents disagreed and 10.06% (16) respondents strongly disagreed with the statement that the chances of promotion in their organisations are good, only 8.81% (14) respondents are not sure.

	Frequency	Percentage (%)
Strongly agree	0	0
Agree	0	0
Not sure	14	8.81
Disagree	129	81.13
Strongly disagree	16	10.06
Total	159	100

4.2.7.3 The job security is good

Table 7 shows that the majority of the respondents, 124 (77.99%) disagreed and 21 (13.21%) strongly disagreed with the statement that their job security is good and only 2 (1.26%) respondents strongly agreed and 2 (1.26%) respondents agreed that their job security is good. The remaining 10 (6.29%) respondents are not sure if their job security is good or not.

Table 7: Job security

	Frequency	Percentage (%)
Strongly agree	2	1.26
Agree	2	1.26
Not sure	10	6.29
Disagree	124	77.99
Strongly disagree	21	13.21
Total	159	100

4.2.8 Job satisfaction

This section focuses on the respondents' level of agreement towards the level of job satisfaction their respective hospitals. Specifically, this section analyses whether respondents agree or disagree with viewpoints. For instance, "My pay and the amount of work I do".

4.2.8.1 My pay and the amount of work I do**Table 8: Amount of work**

	Frequency	Percentage (%)
Very dissatisfied	9	5.666
Satisfied	124	77.99
Neutral	12	7.55
Satisfied	14	8.81
Very satisfied	0	0
Total	159	100

Table 8 shows that the majority of the respondents, 124 (77.99%) are dissatisfied and 9 (5.66%) are strongly dissatisfied with the amount of pay they are getting as

compared to the amount of work they do. Very few respondents 14 (8.81%) are satisfied with the amount of pay they are getting. Some respondents 12 (7.55%) showed some form of being content by being neutral about the amount of pay they get and the amount of work they are do.

4.2.8.2 The chances of advancement in this job

Table 9: Chances of advancement

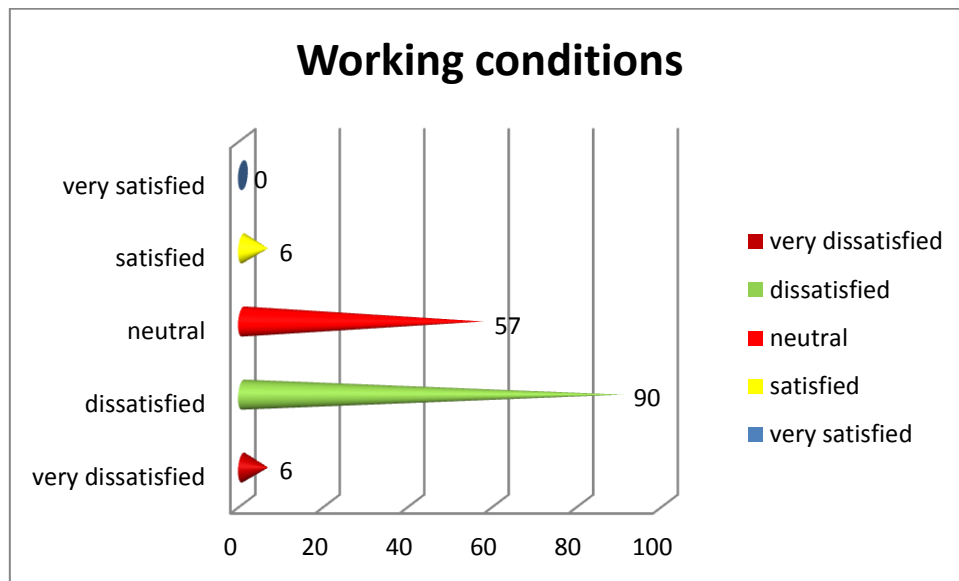
	Frequency	Percentages (%)
Very dissatisfied	8	5.03
Dissatisfied	125	78.62
Neutral	9	5.66
Satisfied	17	10.69
Very satisfied	0	0
Total	159	100

Table 9 shows that the majority of respondents, 78.62% (125) are dissatisfied and 5.03% (8) are very dissatisfied with the level of chances of advancement in their job. Very few respondents 10.69% (17) are satisfied with the chances of advancement in their job. Only 5.66% (9) respondents are neutral about the statement.

4.2.8.3 The working conditions

Figure 6 below shows that most of the respondents, 90 (57.60%) are dissatisfied and 6 (3.77%) are very dissatisfied with the working conditions and very few 6 (3.77%) are satisfied with the working conditions. Some respondents 57 (35.85%) are neutral with the issue of working conditions.

Figure 6: Working conditions



4.2.9 Turnover intentions

This section focuses on the respondents’ level of agreement towards their turnover intentions. Specifically, this section analyses whether respondents agree or disagree with viewpoints. For instance, “I often think of quitting my current job”.

4.2.9.1: I often think of quitting my current job

Figure 7: Quitting intentions

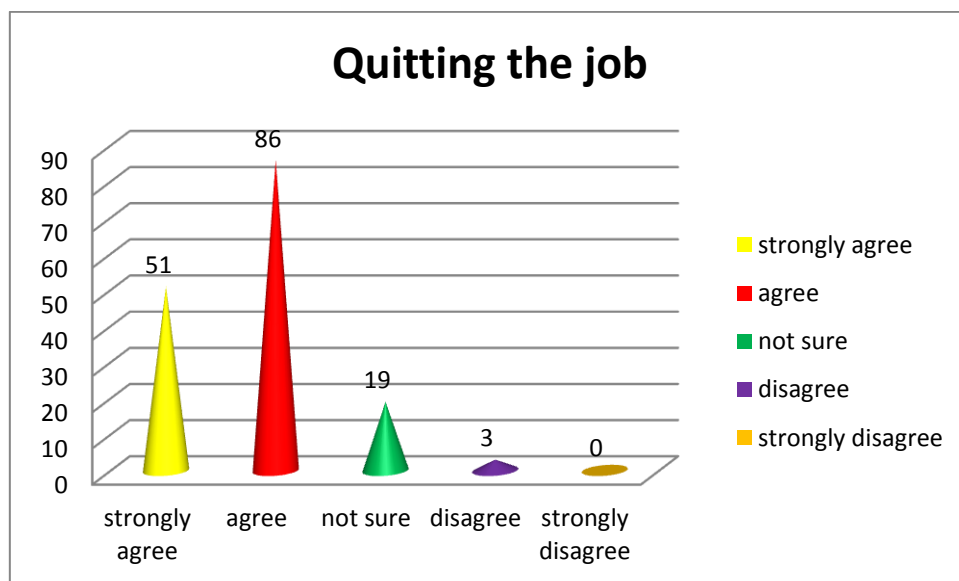


Figure 7 above shows that the majority of the respondents 51 (32.08%) strongly agreed and 86 (54.09%) agreed that they often think of quitting their current job and only 19 (11.95%) are not sure about the statement. Very few respondents 3 (1.89%) does not think of quitting their current job.

4.3 Inferential statistics

The following section addresses the results obtained for the inferential statistics to ascertain the relationship between learning and advancement, work-life rewards, job satisfaction and turnover intention, the significant difference between biographical characteristics and the variables.

4.3.1 Correlations of study variables components

Table 10: Correlations of study variables components

Pearson Correlation Coefficients, N = 159				
Prob > r under H0: Rho=0				
	Learning & advancement opportunities	Work life rewards	Job satisfaction	Turnover intentions
Learning & advancement opportunities	1.00000	0.82961	0.79284	-0.69328
		0.03*	<.0001*	0.01*
Work life rewards	0.82961	1.00000	0.84826	-0.65598
	0.03*		0.23	0.04*
Job satisfaction	0.79284	0.84826	1.00000	-0.86884
	<.0001*	0.23		0.02*
Turnover intentions	-0.69328	-0.65598	-0.86884	1.00000
	0.01*	0.04*	0.02*	

*Statistically significant correlations

Hypothesis 1

H₀: There is no relationship between work-life rewards and turnover intentions

H₁: There is a negative relationship between work-life rewards and turnover intentions

The results from Table 10 shows that there is a negative relationship between work-life rewards and turnover intentions ($r=-0.65598$; $p<.04$). Therefore, the null hypothesis is rejected in favour of the alternative hypothesis.

Hypothesis 2

H₀: There is no relationship between job satisfaction and work-life rewards

H₂: There is a positive relationship between job satisfaction and work-life rewards

Table 10 shows that there is no relationship between job satisfaction and work-life rewards ($r=0.84826$; $p>.22$). Therefore, the alternative hypothesis is rejected and the null hypothesis cannot be rejected.

Hypothesis 3

H₀: There is no relationship between learning, advancement and turnover intentions

H₃: There is a negative relationship between learning, advancement and turnover intentions

The results from Table 10 shows that there is a negative relationship between learning, career advancement and turnover intentions ($r=-0.69328$; $p<.01$). Therefore, the null hypothesis is rejected in favour of the alternative hypothesis.

Hypothesis 4

H₀: There is a no relationship between learning, advancement and job satisfaction

H₄: There is a positive relationship between learning, advancement and job satisfaction

Table 10 shows that there is a positive relationship between learning, advancement and job satisfaction ($r=0.79284$; $p<.0001$). Therefore, the null hypothesis is rejected in favour of the alternative hypothesis.

Hypothesis 5

H₀: There is no relationship between work-life rewards and learning, advancement opportunities

H₅: There is a positive relationship between work-life rewards, learning and advancement opportunities

Table 10 shows that there is a positive relationship between work-life rewards, learning and advancement opportunities ($r=0.82961$; $p<.03$). Therefore, the null hypothesis is rejected in favour of the alternative hypothesis.

Hypothesis 6

H₀: There is no relationship between job satisfaction and turnover intentions

H₆: There is a negative relationship between job satisfaction and turnover intentions

Table 10 shows that there is a negative relationship between job satisfaction and turnover intentions ($r=-0.86884$; $p<.02$). Therefore, the null hypothesis is rejected in favour of the alternative hypothesis.

4.4 Conclusion

The previous chapter outlined an indication of the most noticeable results acquired based on observed analysis of the information. Statistical analysis involved both

descriptive and inferential statistics (SAS 9.1). The chapter presented the outcomes of the study. Figures and tables were drawn to give a summary of the reactions of participants. Associations among the variables were also revealed in the form of tables.

CHAPTER 5: DISCUSSION, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

This chapter outlines the conclusions of the research and makes reference to associated research to back the conclusions of the present study. In order to contextualise the research, associations are gleaned from obtainable literature on learning, advancement, work-life rewards, and job satisfaction and turnover intentions among workers. The chapter provides inferences that can be drawn from the research and suggests recommendations for forthcoming research.

5.2 Discussion of results

5.2.1 Demographics information

The sample comprised of 159 nurses working in the Department of Health in the Eastern Cape Province. The majority of the sample was female employees (63%) while male employees in the sample amounted to (37%). Most of the respondents were aged between 26-30 years (24.53%), followed by 31-35 years old (23.9%), 18-25 (18.87%), 41+ years old (17.61%) lastly 36-40 years old (15.09%). The majority of respondents have children (64%) and only 36% did not have children. Most of the respondents have diplomas (47.8%), while (32.8%) had degrees, matric (17.61%) and post graduate Degree (2.52%). The majority of the respondents were single (55.35%), followed by 24.53% who were married, those who are widowed comprised only 11.95%) and lastly 8.18% who were divorced.

5.3 Discussion between the variables

5.3.1 Hypothesis 1

This discussion focuses on the results per hypothesis. It is about the analysis of the relationship between relationship between work-life rewards and turnover intentions.

H₀: There is no relationship between work-life rewards and turnover intentions

H₁: There is a negative relationship between work-life rewards and turnover intentions

The findings of the study show that there is negative relationship between work-life rewards and turnover intentions ($r=-0.65598$; $p<.04$). Quality of Work-Life explains the degree of the association between individuals' and their intention to quit.

This study set out to evaluate the degree of QWL among selected hospital nurses in Amathole District Municipality. Hospital nurses reported low levels of QWL. The results showed that job promotion, job security, participation, management support and pay and benefits were key factors in nurses' quality of working life. These findings are consistent with other similar studies that found moderate to low levels of nurses' QWL because of increased workload, poor staffing, insufficient pay, lack of professional expansion opportunities, job insecurity, unsuitable working atmosphere and lack of facilities (Almalki et al., 2012; Boonrod, 2009; Nayeri et al., 2011; Rastegari et al., 2010). Job insecurity was found in this study an influence that negatively affects nurses' QWL. It is observed that job insecurity greatly intimidates the health sector. The present study presented that advancement opportunities were an additional major predictor of QWL among hospital nurses.

In a study conducted by Gurses et al, (2009) nurses working in the night shift conveyed higher fatigue and stress and lower QWL. Nursing administrators may apply policies such as flexible programming, self-scheduling, part-time work and other shift systems to improve nurses' QWL (Vagharseyyedin et al., 2011). In addition, poor safety and health of workers and high job demands are negatively correlated with nurses' QWL (Dolan et al., 2008; Gurses et al., 2009). The majority of nurses in

this study specified that their pay was insufficient. This finding is reliable with the results of other studies conducted in Botswana (Dargahi et al., 2007; Saraji and Dargahi, 2006). This study discovered a reverse association existing between QWL and turnover intention. Cultivating QWL will finally lead to improved job satisfaction and condensed turnover intention among nurses.

5.3.2 Hypothesis 2

H₀: There is no relationship between job satisfaction and work-life rewards

H₂: There is a positive relationship between job satisfaction and work-life rewards

The findings of the study show that there is a positive relationship between job satisfaction and work-life rewards ($r=0.84826$; $p<.22$). These results confirmed the opinions of the previous researchers, who demonstrated that overall quality of work life, have an associate on job satisfaction. Gurses et al, (2009) defined job satisfaction as the overall perception of the individual with respects towards their existing work roles. Literature on the subject displays that job satisfaction is influenced by diverse factors (Hardman, 1996) and that it comprises the emotional response and attitude of workers toward their jobs.

The present study indicated that promotion prospects were an additional important predictor of QWL among hospital nurses. Unfair advancement policies perceived by nurses may adversely affect their QWL. Workforces should be considered as developing human resources (Mosadeghrad et al., 2011). Similarly, nurses' satisfaction of pay and fringe benefits has been recognized as one of the most significant forecasters of QWL (Dargahi et al., 2007; Hsu and Kernohan, 2006).

Similar research studies support the important relationship among the managerial aspect and job satisfaction; it is possible to increase job satisfaction by cultivating the stated dimension of quality of work life. Due to the significant relationship between the social element of quality of work life and job satisfaction shown by this study, enhancement of the mentioned dimension will result in development of job satisfaction.

Gadon (1984) quantified the two main objectives of QWL programs are to increase both employee contentment and productivity. Similarly, Mosadeghrad et al., (2011) asserted that QWL stresses on improvement in the work environment as well as among employees to attain the goal of enlightening employee job satisfaction and productivity. Hsu and Kernohan, (2006) state that indication of high QWL can be an increase of efficiency and job satisfaction, reliability, increased levels of self-esteem, frequent involvement in cost savings plans, and personnel who feel they can do without union representation to accomplish their goal of having a moral place to work. Further some scholars and philosophers are attentive to the concept of quality of work life and have tried to identify the factors which specify such capabilities in the work place. These researchers have said that the vital circumferential product or process quality approach is to regulate the aspect of occupational and work setting which is much associated with job satisfaction and suitable period of work life (Waytt & Wah, 2001).

5.3.3 Hypothesis 3

H₀: There is no relationship between learning and career advancement and turnover intentions

H₃: There is a negative relationship between learning and career advancement and turnover intentions

The findings of the study show that there is a negative relationship between learning, career advancement and turnover intentions ($r=-0.69328$; $p<.01$).

The findings of this study discovered three aspects which are pay, security and promotion greatly affect nurses' turnover intents. The managing of these hospitals are ordered to upsurge their nurse' pay, secure their jobs and offer them with advancement opportunities to overcome turnover problem.

According to Gurses et al., (2009), in the field of human resource development, organisational learning culture is the fastest growing notion but the researchers have not explored much about the relation of organisational learning culture with turnover intentions of employees. Social exchange theory suggests that all the employees who receive training are less willing to leave their job (Nayeri et al., 2011). Thus employee's perception towards training opportunities diminishes their intentions to leave the organisation.

In addition to that, Almalki, et al., (2012) argued that there is a negative relationship between job learning and turnover intentions. Amini and Mortazavi, (2013) noted that certain job resources (such as empowerment, supervisory support and rewards) are there which increase the commitment and satisfaction of the employee which ultimately reduces their turnover intentions. Similarly, according to Lee, et al., (2013) knowledge sharing is negatively associated with employees' turnover intentions. There are various studies which support the relationship between organisational learning culture and employee's turnover intention. For example, Mosadeghrad, et al., (2008) conducted a study to judge the association between organisational

learning culture, job satisfaction and turnover intention among the large number of employees in the banking sector and concluded an inverse relationship between organisational learning and turnover intention. Thus, based on literature it could be hypothesized that:

H3: There is a negative relationship between learning, career advancement and turnover intentions

5.3.4 Hypothesis 4

H₀: There is a no relationship between learning, advancement and job satisfaction

H₄: There is a positive relationship between learning, advancement and job satisfaction

The findings of the study showed that there is a positive relationship between learning, advancement and job satisfaction ($r=0.79284$; $p<.0001$). This finding has never been tested by earlier researchers. Nonetheless, this finding was a bit consistent with the finding of Nayeri et al., (2011) who found that when employees are given enough training opportunities the satisfaction at work is enhanced and their commitment level increases.

Similarly, Mosadeghrad et al., (2008) added that life-long learning, expert development and progression endorse employees' job fulfilment and that will allow continued delivery of high-quality healthcare services among health care employees. According to Shields and Ward, (2001), frustration with advancement prospects has been revealed to have a greater influence on workers' turnover.

5.3.5 Hypothesis 5

H₀: There is no relationship between work-life rewards, learning and advancement opportunities

H₅: There is a positive relationship between work-life rewards, learning and advancement opportunities

The findings of the study showed that there is a positive relationship between work-life rewards and learning and advancement opportunities ($r=0.82961$; $p<.03$). The findings of this study is consistent with results by Vagharseyyedin et al., 2011, in a study of 150 teachers that if employees are given training and advancement opportunities they will be satisfied and that positively influences their quality of work-life. In addition, Gurses et al., (2009) supported that when supervisors are mentoring and coaching employees and also giving them recognition their quality of work-life will be improved positively.

5.3.6 Hypothesis 6

H₀: There is no relationship between job satisfaction and turnover intentions

H₆: There is a negative relationship between job satisfaction and turnover intentions

The statistical results obtained in this study showed that there is a negative relationship between Job satisfaction and turnover intentions ($r=-0.86884$; $p<.02$). Job satisfaction was found to have an inverse relationship with turnover intention. This outcome is consistent with those of earlier researchers (Mobley & Griffeth, 1979; Price & Mueller, 1981; Shore & Martin, 1989; Hellman, 1997; Chan & Morrison, 2000; Ghiselli et al., 2001). The adverse association between job satisfaction and turnover intention settles with the balance theory (Heider, 1958) that

individuals desire balance to an unfair state, and the cognitive dissonance theory of social attitude, that it is essential to have consistency between an individual's attitude and behaviour towards an object, so as to remove pressure related with irregularity.

According to MacIntosh and Doherty (2010), many previous researchers supported that there is an adverse association between job satisfaction and turnover. From the above argument we can gather that the connection among human resource practices job satisfaction and turnover should be studied more fully and enhanced job satisfaction decreases the cost of staff turnover, builds brand reliability with employees.

It is believable that when workers evaluate the organisation as being just and kind in their conduct mainly with respect to contented work settings, rapport among the co-workers and managers the constructive feelings of well-being will be formed, which is likely to motivate them to respond by snowballing their loyalty to the organization.

5.4 Limitations

This research added to understanding the associations between learning, advancement and QWL on turnover intentions among a sample of selected nurses in Amathole district hospitals. Furthermore, this study recognized factors that seemed to be linked to nurses' QWL and turnover intention. Nevertheless, some attention is required in deducing the results. In this study, nurses' contribution was generous and was directed at three hospitals in Amathole district Municipality (that is, Victoria hospital, Fort Beaufort and Grey hospital in King Williams' town) in the Eastern Cape Province. The foregoing conclusions warrant significant attention from all stakeholders.

More inquiries in this area are required before anyone can generalize the presented study results. This study may aid as a basis for future studies in diverse countries, on a larger scale. More entities which employ hospital nurses QWL which in turn generate policies to improve the global retention of hospital nurses. At the period of data collection, the investigator detected that some respondents felt hesitant to deliver actual evidence about their job. So it may influence on actual outcome of the study.

5.5 Recommendations

It is suggested that decided attention be set to improving nurses' QWL and offering them training and advancement opportunities through organisational change programmes. Although recruiting more nurses and increased wages and fringe benefits counterbalance nurses' dissatisfaction in the short term, cultivating QWL would be a more long-standing approach to enlightening nurses' retention and reducing turnover intents. Nevertheless, the accomplishment of QWL initiatives depends on organisational values and partnership between administration and personnel. It is therefore suggested that managers offer the same advancement chances for employees. Management must put in place localization programmes and creativities that would recommend employees to main positions and upsurge their participation in decision-making. If nursing supervisors want to improve nurses' QWL, they must be more helpful and give nurses opportunities for advancement. The critical role of the leadership and management practices on nurses' QWL was highlighted in previous studies (Dolan et al., 2008). Nurses' roles and responsibilities should be clearly defined. They should be given opportunities to contribute in decisions and activities upsetting their jobs.

5.6 Areas of future research

There are numerous commendations and confines that have been recognized during this study, which may direct future studies. It is possible that in some cases respondents wanted some clarity before answering some questions but could not get it. Also a desire for social desirability may have caused some respondents to answer some questions untruthfully. There may have been a desire with some respondents to impress the researcher with their answers. To solve this, future studies can use collective approaches of data gathering to reinforce and enhance the results. The research instrument used in this study was a questionnaire however; for purposes of triangulation and in order to avoid common method variance, data collection methods other than self-administered questionnaires should be used in future research. Also, in the future, a larger random sample should be used as this would increase generalizability of the findings. One of the foremost limits of this study was that it sheltered only one district. By increasing the population to include different business categories within South Africa and spreading samples across a wider geographical area and wider selection of hospitals within the Health sector, a more comprehensive outcome could be anticipated. This would ensure external rationality. Another limitation of this study involves not using interviews in the study. By interviewing the management personnel staff it permits to obtain direct information as to what they are presently doing to boost job satisfaction.

5.7 Conclusion in relation to this chapter

This chapter served to discuss the results of this study, to highlight the limitations of the study and to make recommendations for future research as well providing recommendations to management to improve the quality of work-life and increase the work satisfaction level of employees to reduce turnover intentions.

5.8 Conclusion in relation to the entire study

Correlational results found in the study supplement to the generally high level of backing for most of the associations found in the literature. All alternative hypotheses in the study were accepted in favour of the null hypotheses. In summary, the conclusions of the study are presented below as follows:

- There is a positive relationship between job satisfaction and work life rewards
- There is a negative relationship between learning, career advancement and turnover intentions
- There is a positive relationship between learning, advancement and job satisfaction
- There is a positive relationship between work life rewards, learning and advancement opportunities
- There is a negative relationship between job satisfaction and turnover intentions.

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APPENDIX A: REQUEST ON GRANTING ACCESS TO CONDUCT RESEARCH



University of Fort Hare
Together in Excellence

PRIVATE BAG X 1314, ALICE 5700, SOUTH AFRICA

TEL: (040) 602 2607

MOBILE:

ndodd@ufh.ac.za

Sir/Madam

Request on granting access to your organisation for conducting research

The University of Fort Hare together with the National Council of Research, with their main aim of providing qualitative research, request if you could grant one of our master student, **Tandiwe Joy Marufu (200909604)** in the Department of Industrial Psychology of Fort Hare permission and assistance to conduct research in your company as part of the fulfilment and completion of her Masters' degree.

The research will be on: "the impact of learning, advancement and quality of work-life on turnover intentions among nurses in Amathole district, South Africa.

A proposal attached will be discussed with the relative people. It will be highly appreciated if upon granting permission you could provide us with the contact person and contact details (telephone number, cell- phone number, e-mail), should the student need some information pertaining this study.

Your assistance on the above mentioned matter will be highly appreciated. If you need any information on the student, feel free to contact me at numbers and e-mail address as on letterhead.

Yours sincerely.

Dr N. Dodd (Supervisor)

Department of Industrial Psychology

APPENDIX B: RESEARCH QUESTIONNAIRE

DEPARTMENT OF INDUSTRIAL PSYCHOLOGY



University of Fort Hare
Together in Excellence

RESEARCH QUESTIONNAIRE

I am Tandiwe Joy Marufu currently registered at University of Fort Hare, for a Master's degree in Industrial Psychology. As required for the completion of my studies, I am conducting a study on "The impact of learning, advancement and work-life rewards on turnover intentions among employees within the health sector". The information you provide will be used to improve working life and help the department as a whole in managing retention of employees. You are kindly requested to answer each statement carefully and honestly. You are also welcome to add any comments you may have in the allocated spaces.

All information collected will be kept in strictest of confidentiality

Section A: DEMOGRAPHICAL INFORMATION

Instruction: Tick the correct answer by making an (X) in the box of your choice

1.1 Gender

1. Male	<input type="checkbox"/>	2. Female	<input type="checkbox"/>
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1.1 Age

18 – 25	26 – 30	31 – 35	36 – 40	41+

1.2 Do you have

Children

1. Yes	2. No

1.4 Marital status:

1. single	<input type="checkbox"/>	2. Married	<input type="checkbox"/>	3. Divorced	<input type="checkbox"/>	4. Widowed	<input type="checkbox"/>
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1.5 Educational Qualification

Matric	Diploma	Degree	Post grad	Other (state).....

Section B: Learning and Advancement opportunities

2 To what extent do you agree or disagree with each of the statements below?

3 *Indicate your choice by placing an (X) in the block that best describes your understanding of learning in your organization.*

	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
1. In my organization, people openly discuss mistakes in order to learn from them.					
2. My organization encourages people to get answers from across the organization when solving problems					
3. In my organization people are given time to support learning.					
4. In my organization, people help each other learn.					
5. When I do a good job, I receive recognition for future work tasks.					
6. In my organization, Leaders mentor and coach those they lead.					
7. Many of our rules and procedures make doing a good job simple.					
8. My organization recognizes people for taking initiative					
9. My organization supports employees who take calculated risks					
10. I feel a strong sense of belonging to my organisation					
11. My organization encourage people to think from a global perspective					
12. In my organization, teams/groups are rewarded for their achievements as a team/group					
13. I would be very happy to spend the rest of my career with this organization.					
14. In my organization people are encouraged to ask why regardless of rank.					
15. In my organization, leaders generally support requests for learning opportunities and training.					
16. I will look for a new job outside of this company within the next six months					

17. One of the few serious consequences of leaving this organisation would be the scarcity of available alternatives.					
18. I feel satisfied with my chances for salary increases					
19. My organization works together with the outside community to meet mutual needs.					
20. I enjoy discussing my organization with people outside it.					
21. My organization creates systems to measure gaps between current and expected performance					

Section C: Work-life rewards

To what extent do you agree or disagree with each of the statements below?

Instruction: *Indicate your choice by placing an (X) in the block that best describes your understanding of learning in your organization.*

	Strong Agree	Agree	Not sure	Disagree	Strongly disagree
1. On my job, I know exactly what is expected of me					
2. At the place where I work, I am treated with respect					
3. The safety of workers is a high priority with management where I work					
4. There are no significant compromises or shortcuts taken when worker safety is at stake					
5. Where I work, employees and management work together to ensure the safest possible working conditions					
6. The safety and health conditions where I work are good					
7. The place where I work is run in a smooth and effective manner					
8. The chances for promotion are good					
9. I receive enough help and equipment to get the job done					

10. My fringe benefits are good					
11. My supervisor is concerned about the welfare of those under him or her					
12. Promotions are handled fairly					
13. The job security is good					
14. In our organization, we have access to stress management or stress reduction programs.					
15. What I earn is fair compared to others doing the same type of work I do					
16. I feel that the income from my job alone is enough to meet my family's usual monthly expenses and bills.					
17. It is easy to find a job with another employer with approximately the same income and fringe benefits as I have now.					
18. The insecurity of my employment relationship makes it difficult to make future plans					

Section D: Job satisfaction

To what extent do you agree or disagree with each of the statements below?

Instruction: Indicate your choice by placing an (X) in the block that best describes your understanding of Job satisfaction in your organization

	In my present job, this is how I feel about.....	Very dissatisfied	dissatisfied	neutral	satisfied	Very satisfied
1.	Being able to keep busy all the time					
2.	The chance to work alone on the job					
3.	The chance to do different things from time to time					
4.	The chance to be somebody in the community					
5.	The way my boss handles his/her workers					
6.	The competence of making decisions					
7.	Being able to do things that don't go against my conscience					
8.	The way my job provides for steady employment					
9.	The chance to do things for other people					
10.	The chance to do something that makes use of my abilities					
11.	The way organizational policies are put into practice					
12.	The chance to tell people what to do					
13.	My pay and the amount of work I do					
14.	The chances of advancement in this job					
15.	The freedom to use my own judgment					
16.	The chance to try my own method of doing a job					
17.	The working conditions					
18.	The way my co-workers get along with each other					
19.	The feeling of accomplishment I get from the job					
20.	The praise I get from doing a good job					

Section E: Turnover intention

To what extent do you agree or disagree with each of the statements below?

Instruction: *Indicate your choice by placing an (X) in the block that best describes your understanding of learning in your organization.*

	Strongly agree	Agree	Not sure	Disagree	Strongly disagree
1. If I can find a better job, I will leave this organisation					
2. I often think of quitting my current job					
3. I will look for a new job outside of this organisation within the next six month					
4. I will look for a new job outside of this organisation within the next year					

Thank you!!!

APPENDIX C: STATISTICAL ANALYSIS

A	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	59	37.11	59	37.11
2	100	62.89	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	10.5723
DF	1
Pr > ChiSq	0.0011

Sample Size = 159

A2	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	30	18.87	30	18.87
2	39	24.53	69	43.40
3	38	23.90	107	67.30
4	24	15.09	131	82.39
5	28	17.61	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	5.3082
DF	4
Pr > ChiSq	0.2571

Sample Size = 159

A	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	101	63.52	101	63.52
2	58	36.48	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	11.6289
DF	1
Pr > ChiSq	0.0006

Sample Size = 159

A	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	88	55.35	88	55.35
2	39	24.53	127	79.87
3	13	8.18	140	88.05
4	19	11.95	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	87.4151
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

A	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	28	17.61	28	17.61
2	76	47.80	104	65.41
3	51	32.08	155	97.48
4	4	2.52	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	71.8679
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

B 1	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	3	1.89	3	1.89
2	46	28.93	49	30.82
3	25	15.72	74	46.54
4	85	53.46	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	91.9434
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

B 2	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	12	7.55	12	7.55
3	51	32.08	63	39.62
4	96	60.38	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	66.6792
DF	2
Pr > ChiSq	<.0001

Sample Size = 159

B	Frequency	Percent	Cumulative Frequency	Cumulative Percent
3	85	53.46	85	53.46
4	71	44.65	156	98.11
5	3	1.89	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	72.6038
DF	2
Pr > ChiSq	<.0001

Sample Size = 159

B	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	14	8.81	14	8.81
3	60	37.74	74	46.54
4	9	5.66	83	52.20
5	76	47.80	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	83.8428
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

B	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	79	49.69	79	49.69
3	17	10.69	96	60.38
4	63	39.62	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	39.0943
DF	2
Pr > ChiSq	<.0001

Sample Size = 159

B	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	37	23.27	37	23.27
3	79	49.69	116	72.96
4	43	27.04	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	19.4717
DF	2
Pr > ChiSq	<.0001

Sample Size = 159

B 7	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	3	1.89	3	1.89
3	42	26.42	45	28.30
4	114	71.70	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	119.6604
DF	2
Pr > ChiSq	<.0001

Sample Size = 159

B 8	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	2	1.26	2	1.26
2	15	9.43	17	10.69
3	14	8.81	31	19.50
4	128	80.50	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	263.8679
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

B9	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	10	6.29	10	6.29
2	61	38.36	71	44.65
3	34	21.38	105	66.04
4	52	32.70	157	98.74
5	2	1.26	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	82.6667
DF	4
Pr > ChiSq	<.0001

Sample Size = 159

B10	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	3	1.89	3	1.89
3	48	30.19	51	32.08
4	83	52.20	134	84.28
5	25	15.72	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	88.2201
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

B11	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	6	3.77	6	3.77
3	36	22.64	42	26.42
4	54	33.96	96	60.38
5	63	39.62	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	47.7170
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

B12	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	12	7.55	12	7.55
3	21	13.21	33	20.75
4	95	59.75	128	80.50
5	31	19.50	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	106.9371
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

B13	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	6	3.77	6	3.77
3	52	32.70	58	36.48
4	31	19.50	89	55.97
5	70	44.03	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	57.3774
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

B14	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	14	8.81	14	8.81
3	93	58.49	107	67.30
4	49	30.82	156	98.11
5	3	1.89	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	124.1447
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

B15	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	36	22.64	36	22.64
3	80	50.31	116	72.96
4	40	25.16	156	98.11
5	3	1.89	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	75.0881
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

B1 6	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	13	8.18	13	8.18
2	95	59.75	108	67.92
3	33	20.75	141	88.68
4	18	11.32	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	107.8428
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

B17	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	23	14.47	23	14.47
2	63	39.62	86	54.09
3	31	19.50	117	73.58
4	40	25.16	157	98.74
5	2	1.26	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	63.1069
DF	4
Pr > ChiSq	<.0001

Sample Size = 159

B18	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	16	10.06	16	10.06
2	8	5.03	24	15.09
3	38	23.90	62	38.99
4	90	56.60	152	95.60
5	7	4.40	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	152.7296
DF	4
Pr > ChiSq	<.0001

Sample Size = 159

B19	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	3	1.89	3	1.89
2	36	22.64	39	24.53
3	30	18.87	69	43.40
4	74	46.54	143	89.94
5	16	10.06	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	90.5912
DF	4
Pr > ChiSq	<.0001

Sample Size = 159

B20	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	62	38.99	62	38.99
3	64	40.25	126	79.25
4	18	11.32	144	90.57
5	15	9.43	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	54.5597
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

B21	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	38	23.90	38	23.90
3	86	54.09	124	77.99
4	35	22.01	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	30.9057
DF	2
Pr > ChiSq	<.0001

Sample Size = 159

C1	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	3	1.89	3	1.89
2	87	54.72	90	56.60
3	47	29.56	137	86.16
4	22	13.84	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	99.3899
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

C2	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	37	23.27	37	23.27
3	29	18.24	66	41.51
4	93	58.49	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	45.8868
DF	2
Pr > ChiSq	<.0001

Sample Size = 159

C3	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	21	13.21	21	13.21
3	76	47.80	97	61.01
4	62	38.99	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	30.8302
DF	2
Pr > ChiSq	<.0001

Sample Size = 159

C4	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	95	59.75	95	59.75
3	30	18.87	125	78.62
4	34	21.38	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	50.0755
DF	2
Pr > ChiSq	<.0001

Sample Size = 159

C5	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	30	18.87	30	18.87
3	20	12.58	50	31.45
4	109	68.55	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	89.6981
DF	2
Pr > ChiSq	<.0001

Sample Size = 159

C6	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	2	1.26	2	1.26
3	3	1.89	5	3.14
4	154	96.86	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	288.7170
DF	2
Pr > ChiSq	<.0001

Sample Size = 159

C7	Frequency	Percent	Cumulative Frequency	Cumulative Percent
3	18	11.32	18	11.32
4	132	83.02	150	94.34
5	9	5.66	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	177.3962
DF	2
Pr > ChiSq	<.0001

Sample Size = 159

C8	Frequency	Percent	Cumulative Frequency	Cumulative Percent
3	14	8.81	14	8.81
4	129	81.13	143	89.94
5	16	10.06	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	163.5094
DF	2
Pr > ChiSq	<.0001

Sample Size = 159

C9	Frequency	Percent	Cumulative Frequency	Cumulative Percent
3	7	4.40	7	4.40
4	152	95.60	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	132.2327
DF	1
Pr > ChiSq	<.0001

Sample Size = 159

C10	Frequency	Percent	Cumulative Frequency	Cumulative Percent
3	39	24.53	39	24.53
4	120	75.47	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	41.2642
DF	1
Pr > ChiSq	<.0001

Sample Size = 159

C11	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	12	7.55	12	7.55
3	84	52.83	96	60.38
4	54	33.96	150	94.34
5	9	5.66	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	97.5283
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

C12	Frequency	Percent	Cumulative Frequency	Cumulative Percent
3	35	22.01	35	22.01
4	111	69.81	146	91.82
5	13	8.18	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	99.7736
DF	2
Pr > ChiSq	<.0001

Sample Size = 159

C13	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	2	1.26	2	1.26
2	2	1.26	4	2.52
3	10	6.29	14	8.81
4	124	77.99	138	86.79
5	21	13.21	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	341.7862
DF	4
Pr > ChiSq	<.0001

Sample Size = 159

C14	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	9	5.66	9	5.66
3	11	6.92	20	12.58
4	65	40.88	85	53.46
5	74	46.54	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	90.1321
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

C15	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	14	8.81	14	8.81
3	75	47.17	89	55.97
4	46	28.93	135	84.91
5	24	15.09	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	55.1635
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

C16	Frequency	Percent	Cumulative Frequency	Cumulative Percent
3	103	64.78	103	64.78
4	44	27.67	147	92.45
5	12	7.55	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	80.4151
DF	2
Pr > ChiSq	<.0001

Sample Size = 159

C17	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	14	8.81	14	8.81
2	18	11.32	32	20.13
3	109	68.55	141	88.68
4	18	11.32	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	161.1258
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

C18	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	34	21.38	34	21.38
2	81	50.94	115	72.33
3	36	22.64	151	94.97
4	8	5.03	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	69.3522
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

D1	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	87	54.72	87	54.72
2	41	25.79	128	80.50
3	18	11.32	146	91.82
4	13	8.18	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	86.1069
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

D	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	18	11.32	18	11.32
2	21	13.21	39	24.53
3	11	6.92	50	31.45
4	109	68.55	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	162.1824
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

D3	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	29	18.24	29	18.24
3	27	16.98	56	35.22
4	103	64.78	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	70.7925
DF	2
Pr > ChiSq	<.0001

Sample Size = 159

D4	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	32	20.13	32	20.13
3	101	63.52	133	83.65
4	26	16.35	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	65.5472
DF	2
Pr > ChiSq	<.0001

Sample Size = 159

D5	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	111	69.81	111	69.81
3	28	17.61	139	87.42
4	20	12.58	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	95.8113
DF	2
Pr > ChiSq	<.0001

Sample Size = 159

D6	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	131	82.39	131	82.39
3	19	11.95	150	94.34
4	9	5.66	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	173.1321
DF	2
Pr > ChiSq	<.0001

Sample Size = 159

D7	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	123	77.36	123	77.36
3	17	10.69	140	88.05
4	19	11.95	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	138.7170
DF	2
Pr > ChiSq	<.0001

Sample Size = 159

D8	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	48	30.19	48	30.19
3	90	56.60	138	86.79
4	21	13.21	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	45.6226
DF	2
Pr > ChiSq	<.0001

Sample Size = 159

D9	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	3	1.89	3	1.89
2	96	60.38	99	62.26
3	50	31.45	149	93.71
4	10	6.29	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	138.4843
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

D10	Frequency	Percent	Cumulative Frequency	Cumulative Percent
2	44	27.67	44	27.67
3	37	23.27	81	50.94
4	78	49.06	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	18.1509
DF	2
Pr > ChiSq	0.0001

Sample Size = 159

D11	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	5	3.14	5	3.14
2	43	27.04	48	30.19
3	81	50.94	129	81.13
4	30	18.87	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	75.8428
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

D12	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	11	6.92	11	6.92
2	36	22.64	47	29.56
3	33	20.75	80	50.31
4	79	49.69	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	61.0503
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

D13	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	9	5.66	9	5.66
2	124	77.99	133	83.65
3	12	7.55	145	91.19
4	14	8.81	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	238.4088
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

D14	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	8	5.03	8	5.03
2	125	78.62	133	83.65
3	9	5.66	142	89.31
4	17	10.69	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	245.0000
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

D15	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	5	3.14	5	3.14
2	63	39.62	68	42.77
3	26	16.35	94	59.12
4	65	40.88	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	64.7736
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

D16	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	9	5.66	9	5.66
2	97	61.01	106	66.67
3	35	22.01	141	88.68
4	18	11.32	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	118.7107
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

D1	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	6	3.77	6	3.77
2	90	56.60	96	60.38
3	57	35.85	153	96.23
4	6	3.77	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	128.3208
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

D18	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	2	1.26	2	1.26
2	57	35.85	59	37.11
3	94	59.12	153	96.23
4	6	3.77	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	146.0314
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

D19	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	3	1.89	3	1.89
2	114	71.70	117	73.58
3	40	25.16	157	98.74
4	2	1.26	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	208.5220
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

D20	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	14	8.81	14	8.81
2	110	69.18	124	77.99
3	31	19.50	155	97.48
4	4	2.52	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	174.9119
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

E1	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	114	71.70	114	71.70
2	28	17.61	142	89.31
3	13	8.18	155	97.48
4	4	2.52	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	192.3208
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

E2	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	51	32.08	51	32.08
2	86	54.09	137	86.16
3	19	11.95	156	98.11
4	3	1.89	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	101.8050
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

E3	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	17	10.69	17	10.69
2	99	62.26	116	72.96
3	37	23.27	153	96.23
4	6	3.77	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	130.1824
DF	3
Pr > ChiSq	<.0001

Sample Size = 159

E4	Frequency	Percent	Cumulative Frequency	Cumulative Percent
1	5	3.14	5	3.14
2	135	84.91	140	88.05
3	10	6.29	150	94.34
4	9	5.66	159	100.00

Chi-Square Test for Equal Proportions	
Chi-Square	304.6730
DF	3
Pr > ChiSq	<.0001

Sample Size = 159