CHAPTER 5: DISCUSSION AND INTERPRETATION

5.1 Introduction

In the previous chapter, the results of the various statistical procedures were documented and observations were made. The results of descriptive statistics, factor analysis, item analysis, coefficients of association and intercorrelations of variables, analysis of variance and covariance, test for mediating variables and a General Linear Modelling (GLM) were portrayed.

The focus of this chapter is on how the objectives of the study, both theoretical and empirical, were achieved. The findings of the study will be discussed and interpreted.

5.2 Review of the Study

5.2.1 The Literature Survey

The primary objective of the literature survey was to provide research evidence for a predictive model of turnover intentions. The proposed model was depicted in Figure 1.1.

The secondary theoretical objectives were to:

1. Define the key concepts of the study, namely organisational culture, turnover intentions, knowledge sharing, organisational commitment, organisational citizenship behaviours and job satisfaction.

2. Describe organisational culture by providing a theoretical framework with the emphasis on typologies, dimensions, multiple levels, an integrative model of the concept, and its relationship to turnover intentions.
(3) Describe turnover intentions with the emphasis on generic turnover models, theoretical approaches to turnover studies, turnover intentions as planned behaviour and types of turnover cognitions.

(4) Describe knowledge sharing as theoretical concept, pre-requisites to share, methods, expected outcomes and its relationship to organisational culture and turnover intentions.

(5) Describe organisational commitment with the emphasis on a theoretical framework of the concept, approaches to study organisational commitment, commitment foci, a baseline motivational model of organisational commitment, and its relation to organisational culture and turnover intentions.

(6) Describe organisational citizenship behaviours by providing a theoretical framework of the concept, types and methods of OCB’s, organisational citizenship behaviour as motivational process, antecedents and helping, voice as OCB’s, and its relation to organisational culture and turnover intentions.

(7) Describe job satisfaction with the emphasis on a theoretical framework of the concept, the dimensions of job satisfaction and the relationship to organisational culture and turnover intentions.

(8) Outline an integrative model of organisational culture dimensions and the relationships with knowledge sharing, organisational commitment, organisational citizenship behaviours, job satisfaction and turnover intentions indicating the status of empirical research between sets of key variables.

Next, the empirical objectives are outlined.
5.2.2 **The Empirical Study**

The primary objective of the empirical study was to investigate the relationships between sets of key variables in the original model (Figure 1.1) in order to propose a predictive model of turnover intentions.

At the secondary level, the objectives were to:

1. **Determine whether there is a relationship between organisational culture and turnover intentions.**

2. **Determine whether any demographic variables [sub-cultures (type of hospital, unit), tenure (profession, unit, hospital), age, level of education, gender, race, home language, level of seniority, marital status, number of dependents (under the age of 18, above the age of 18)] independently (individually) and/or interactively (combined) predict organisational culture.**

3. **Determine whether any of the demographic variables [sub-cultures (type of hospital, unit), tenure (profession, unit, hospital), age, level of education, gender, race, home language, level of seniority, marital status, number of dependents (under the age of 18, above the age of 18)] independently (individually) and/or interactively (combined) predict turnover intentions.**

4. **Determine whether the independent variable (organisational culture) and the mediating variables (knowledge sharing, organisational commitment, OCB’s, job satisfaction) independently or interactively predict turnover intentions.**

5. **Determine whether the relationship between organisational culture and turnover intentions is mediated by knowledge sharing, organisational commitment, OCB’s and job satisfaction.**
Determine the most parsimonious model of predicting turnover intentions by entering the independent, mediating and demographic variables simultaneously into the equation.

The findings of the literature survey will be discussed next.

5.3 **Results of the Literature Survey (Theoretical Research Objectives 2.2.1 – 2.2.8)**

The results of the most important findings of the literature survey will be presented by defining each concept (theoretical research objectives 2.2.1), providing a short review of the theoretical development of the concept (theoretical research objectives 2.2.2 – 2.2.7) and thereafter provide an overview of the relationships with other concepts (theoretical research objectives 2.2.8), which is the main focus of this study.

5.3.1 **Organisational Culture**

5.3.1.1 **Definition**

According to the relevant literature organisational culture can be referred to as a set of values, beliefs and behaviour patterns that form the core identity of organisations, and help in shaping the employees’ behaviour (Deshpande & Farley, 1999; Erwee et al., 2001; Kotter & Heskett, 1992; Luthans, 1992; Rashid et al., 2004; Sempane et al., 2002; Van der Post et al., 1997, 1998). Van der Post et al. (1997) approached the study of organisational culture by identifying certain dimensions that shape behaviour and eventually can be regarded as the culture of the organisation.

5.3.1.2 **Review of the Theoretical Development of the Concept**

Erwee et al. (2001) summarised the current status in respect of organisational culture by stating that it remains one of the most contested areas of academic inquiry within the
broader field of organisational studies. It is characterised by competing definitions, epistemologies and research paradigms. While controversy exists about virtually all aspects of this construct including the mechanics and extent of its contribution to organisational performance, there is considerable consensus about the importance of organisational culture (Bagraim, 2001; Martins & Martins, 2002; Rashid et al., 2004).

The question is raised in the literature whether managers can change the corporate culture. Schein (1985) recognised the complexity of culture and the difficulty of fundamentally changing it. This may be contradictory to views held by Van der Post et al. (1997) and Erwee et al. (2001) that organisational culture can be viewed from various dimensions which are more manageable.

Drawn from different theoretical perspectives supported in the context of this study, an attempt was made to provide an integrative process model of organisational culture. The composition of this model was derived from the assumption that the external environment will influence organisational culture in the sense that people will bring into the organisation their values, beliefs, personality characteristics, experience, needs, attitudes, preferences and motives that will determine the core identity of an organisation (Deshpande & Farley, 1999; Erwee et al., 2001; Hofstede, 1980; Kotter & Heskett, 1992; Luthans, 1992; Rashid et al., 2004; Schein, 1992; Sempane et al., 2002; Van der Post et al., 1998; Van der Post et al., 1997); that organisational culture can either be viewed from several dimensions (Denison, 1996; Erwee et al., 2001; Van der Post et al., 1997) or through describing typologies which influence organisational behaviour (Braithwaite et al., 2004, Deshpande & Farley, 1999; Skogstad & Einarsen, 1999); and that some of the outcomes of organisational culture in the context of this study could be seen (from more observable behaviour to less observable behaviour) as turnover (Anonymous, 2004; Coile, 2001; Waldman et al., 2003), OCB’s (Maignan & Ferell in Rashid et al., 2004), performance (Van der Post et al., 1998); competitive advantages (Bagraim, 2001; Martins & Martins, 2002; Rashid et al., 2004), knowledge sharing behaviour (Gupta et al., 2002; Haldin-Herrgard, 2000; Husted & Michailova, 2002; McDermott & O’Dell, 2001; Ryu et al., 2003; Shin, 2004; Yang & Wan, 2004), job
satisfaction (Sempane et al., 2002; Skogstad & Einarsen, 1999) and organisational commitment (Cohen, 2000; Rashid et al., 2004).

Lastly, an extensive review of the literature yielded no results of the concept of organisational culture in South African hospitals.

5.3.1.3 Relationship with the other Concepts

A review of the literature reveals a limitation in research regarding the relationship between organisational culture and turnover intentions. Most of the research is driven by assumptions that organisational culture is related to turnover intentions (Anonymous, 2004; Coile, 2001; Waldman et al., 2003). No theoretical evidence could be found regarding the relationship between organisational culture and turnover intentions in hospitals.

The findings of the relationships between organisational culture and the different mediating variables will be discussed in sections referring to the latter (mediating variables).

Next, the results of the literature research regarding turnover intentions will be discussed.

5.3.2 Turnover Intentions

5.3.2.1 Definition

Relevant literature conceptualise turnover to be a psychological response and rest on the belief that turnover is an individual choice behavioural pattern (Lum et al., 1998). Intention to leave has a behavioural implication as it entails one’s attachment to the organisation (Iverson & Roy, 1994) or the degree of likelihood of an employee forfeiting membership in an organisation (Boshoff et al., 2002; Currivan, 1999). Sager et al.
(1998) referred to turnover cognitions as mental decisions intervening between an individual’s attitude regarding the job and the stay, or leave, decision. According to Houkes et al. (2003), turnover intentions might be seen as a psychological outcome and to Elangovan (2001), intention to quit represents an attitudinal orientation or a cognitive manifestation of the behavioural decision to quit.

5.3.2.2 **Review of the Theoretical Development of the Concept**

According to relevant literature turnover models are drawn from a number of theoretical perspectives, with the emphasis on social exchange and interdependence perspectives (Blau, 1964; Iverson, 1999). Generic turnover models have either directly, or indirectly, emphasised job opportunities as part of the link between job search, turnover intentions and actual turnover behaviour (Arnold & Feldman, 1982; Lee et al., 1999). Some researchers focused on structural determinants of turnover intentions such as pay (Iverson, 1999), while others proposed an unfolding model that employees’ decision to leave may result from organisational “shocks” such as being overseen for a promotion (Lee & Mitchell, 1994).

The common thread running through all models is the complexity and difficulty in predicting who stays and who leaves (Iverson, 1999). Some commentators would postulate that the notion of commitment to either job or profession is a more useful concept than turnover cognitions. However, research indicates that turnover cognitions have a distinct conceptual base and significant explanatory power (Carbery et al., 2003).

The theory of planned behaviour (Ajzen, 1991), suggests that behavioural intention is a good predictor of actual behaviour. It has been successfully demonstrated in previous studies that behavioural intention to leave is consistently correlated with turnover (Fox & Fallon, 2003; Mobley, 1982). There is considerable support for the notion that intention to quit is probably the most important and immediate antecedent of turnover decisions (Chiu & Francesco, 2003; Fox & Fallon, 2003; Mobley, 1982; Shields & Ward, 2001; Slate & Vogel, 1997; Steel & Ovalle, 1984).
5.3.2.3 **Relationships with the other Concepts**

The findings of the relationship between turnover intentions and organisational culture were discussed in section 5.3.1.3. The findings of the relationships between the mediating variables and turnover intentions will be discussed in sections referring to the latter (mediating variables).

Next, the most important findings of the literature research regarding knowledge sharing will be discussed.

5.3.3 **Knowledge Sharing**

5.3.3.1 **Definition**

According to the relevant literature, various efforts exist to define the concept of knowledge sharing. However, a common understanding of the concept, specifically in a social setting, is lacking. This may be the result of limited empirical substantiation of the concept. The majority of studies can typically be described as "exploratory" that illustrate the lack of depth in contemporary understanding of how human and social factors affect knowledge management and sharing initiatives (Hislop, 2003).

Various attempts were made to define knowledge sharing. Sveiby (in Wagner et al., 2002, p. 50) defined knowledge management as the art of creating value from an organisation’s intangible assets. Davenport and Prusak (1998, p. 52) defined knowledge creation as the initiative and activities firms undertake to increase their stock of corporate knowledge. Rowley (2003) emphasised the individual’s willingness to learn and assist others in the development of new competencies. Ryu et al. (2003) supported this notion by seeing knowledge sharing first and foremost as a people-to-people process.
5.3.3.2 Review of the Theoretical Development of the Concept

To date, much of the research of knowledge sharing focused on economic benefits such as being competitive (Gupta et al., 2000; Haldin-Herrgard, 2000; Husted & Michailova, 2002; Samaddar & Kadiyala, 2003; Shin, 2004; Van Gils & Zwart, 2004). Very little research focused on knowledge sharing as a psychological need of people. Only one study could be found that investigated knowledge sharing empirically in a social context (Ryu et al., 2003).

There is overwhelming consensus that organisational knowledge comprises explicit knowledge, which can be documented and shared, and viewed as implicit or tacit knowledge, which resides in the minds, cultures, and experiences within the organisation (Gupta et al., 2000; Nonaka, 1991; Rowley, 2003; Tippens, 2003). There is also growing acknowledgement that much organisational knowledge is tacit in nature and for employers to benefit from their training and development programmes, there should be a willingness on the part of those workers who possess it to share and communicate it (Bartol & Srivastava, 2002; Hislop, 2003; Katsirikou, 2003; Wagner et al., 2002).

An overview of the literature indicated that people will probably (not empirically tested) share knowledge if the following pre-requisites are met: a supportive organisational culture (Gupta et al., 2002; Haldin-Herrgard, 2000; Husted & Michailova, 2002; McDermott & O'Dell, 2001; Ryu et al., 2003; Shin, 2004; Yang & Wan, 2004); expectations of reciprocity (Chua, 2003); trust (Bartol & Srivastava, 2002; Husted & Michailova, 2002; Lemon & Sahota, 2004; Panteli & Sockalingam, 2004; Wagner et al., 2002; Yang & Wan, 2004); effective reward systems (Chua, 2003; Husted & Michailova, 2002; McDermott & O'Dell, 2001; Yang & Wan, 2004); perception that career would not be jeopardised (Husted & Michailova, 2002); group affiliation and teamwork (Husted & Michailova, 2002); integrated into a business strategy (Chua, 2003; Lee, 2004; McDermott & O'Dell, 2001); management support (McDermott & O'Dell, 2001); and sufficient time (Husted & Michailova, 2002; Haldin-Herrgard, 2000; Yang & Wan, 2004).
Some of the expected outcomes of knowledge sharing are described as improving the competencies of the organisation (Chua, 2003), increased business performance (Shin, 2004), to become innovative (Gupta et al., 2000; Lemon & Sahota, 2004) and gain financial benefits (Samaddar & Kadiyala, 2003).

5.3.3.3 **Relationship with the other Concepts**

A supportive organisational culture is regarded by various researchers as a pre-requisite for knowledge sharing behaviours (Gupta et al., 2002; Haldin-Herrgard, 2000; Husted & Michailova, 2002; McDermott & O’Dell, 2001; Ryu et al., 2003; Shin, 2004; Yang & Wan, 2004). An overview of the literature indicated a lack in research regarding the relationship between knowledge sharing and turnover intentions.

Lastly, no evidence in the literature could be found regarding knowledge sharing behaviour in South African hospitals or in the nursing profession alike.

Next, the most important findings of the literature research regarding organisational commitment will be discussed.

5.3.4 **Organisational Commitment**

5.3.4.1 **Definition**

A review of the literature indicated that organisational commitment was defined differently by various researchers. However, organisational commitment was, for the purpose of this study, defined as a cognitive predisposition towards a particular focus, insofar as this focus has the potential to satisfy needs, realise values and achieve goals (Roodt, 2004a, p. 85).
5.3.4.2 Review of the Theoretical Development of the Concept

The relevant literature regarding organisational commitment included a large number of explanatory and descriptive concepts. According to Roodt (2004a), employee commitment evolved as a wide range of ‘types’ (e.g. engagement, attachment, commitment, involvement) within a wide spectrum of foci (e.g. work, job, career, profession/occupation, organisation, union), while categories towards studying commitment varied between behavioural, attitudinal and motivational within three broad research streams (sociological, industrial/organisational psychology and health psychology).

Roodt (2004a) therefore argued that most researchers took little cognisance of contradictory research findings and/or of different theorisations about various concepts of employee commitment. As a result, research in the commitment field is characterised by concept redundancy and concept contamination. Concept redundancy in this context refers to the use of related variables that largely overlap in meaning, e.g. work involvement and work commitment. Concept contamination occurs when a variable contains a large proportion of shared or common content with other ‘unrelated’ variables, e.g. morale and work involvement.

Originally organisational commitment was viewed as a unidimensional construct focusing only on affective attachments (Mowday, 1999). Some authors argued that commitment is a complex and multifaceted construct (Meyer et al., 1993, Mowday, 1999). Contrary to this view, Roodt (1997) proposed a unidimensional measuring instrument of commitment by distinguishing between different commitment foci. This can be regarded as a motivational approach to study commitment, in the sense that it has the ability to satisfy salient needs of employees. An understanding of the different foci can probably explain the dynamics of employee commitment in the work context. According to Roodt (2004a) a golden thread running through all the definitions of commitment is the potential of a particular focus to satisfy salient needs. Roodt (2004a) therefore proposes a motivational approach to define and measure commitment. The
model suggests that the commitment process remains the same regardless of the context or focus in question.

5.3.4.3 **Relationships with the other Variables**

An overview of the literature indicated that relationships between dimensions or typologies of organisational culture with organisational commitment do exist (Cohen, 2000; Rashid et al., 2004), but low correlations were generally reported (Lok & Crawford, 1999). It is therefore clear, that extensive and conclusive evidence do not exist in the literature regarding the relationship between organisational culture and organisational commitment.

Higher commitment levels predict lower turnover intentions (Boshoff et al., 2002; Chen et al., 1998; Cohen, 1998; Cohen, 1993; Firth et al., 2004; Meyer et al., 2002; Iverson, 1999; Mowday et al., 1982; Rosin & Korabik, 1995; Schwepker, 2001; Shore et al., 1990; Vallabh & Donald, 2001; Williams & Hazer, 1986).

Next, the most important findings of the literature research regarding organisational citizenship behaviour will be discussed.

5.3.5 **Organisational Citizenship Behaviour**

5.3.5.1 **Definition**

Organ (1988) defined organisational citizenship behaviour as discretionary behaviour not directly or explicitly recognised by the formal reward system promoting the effective functioning of the organisation. The term discretionary, is questioned, as many believed employees can display organisational citizenship for self-serving motives or to compensate for transgressions (Bolino et al., 2004).
A review of the literature indicated that organisational citizenship behaviour (OCB’s) leads to positive organisational outcomes (Podsakoff et al., 2000; Podsakoff et al., 1997; Podsakoff & MacKenzie, 1994). It is, however, apparent that a lack of consensus exists about the dimensionality of this construct (Podsakoff et al., 2000). The literature regarding organisational citizenship behaviours has focused more on understanding the relationships between OCB’s and other constructs, rather than defining the nature of the construct itself (Podsakoff et al., 2000). This resulted in a lack of some of the similarities and differences in some of the constructs. The same concept has been given different labels by different researchers resulting in different conceptual connotations (Podsakoff et al., 2000). Definitions often describe a range of behaviours (Organ, 1988; Podsakoff et al., 2000).

To illustrate the lack of conceptual clarity, OCB’s can only be regarded as a collection of behaviours. According to Roodt (2004a) OCB’s can be seen as a consequence of organisational commitment. This view is consistent with the view of Organ (1988) and (Podsakoff et al., 2000) that OCB’s stem from positive or non-self-serving motives (such as job satisfaction, organisational commitment, or conscientiousness). In reviewing the relevant literature, the lack of ‘behavioural’ models to explain the concept theoretically, is evident.

Relationships with the other Concepts

An overview of the literature indicated a lack of research regarding the relationship between organisational culture and organisational citizenship behaviours (Stamper & Van Dyne, 2001). Although organisational citizenship behaviour has not been integrated as an important component of turnover (Chen et al., 1998; Podsakoff et al., 2000), a few studies yielded a negative relation (Aryee & Chay, 2001; Chen et al., 1998; Cropanzano et al., 2003).
Lastly, no evidence in the literature could be found regarding organisational citizenship behaviour in South African hospitals.

Next, the most important findings of the literature research regarding job satisfaction will be discussed.

5.3.6 **Job Satisfaction**

5.3.6.1 **Definition**

An overview of the literature reveals that there is, to a large extent, consensus that job satisfaction refers to a worker’s general attitude towards his or her job. This attitude is determined by what the worker expects (e.g. needs) and receives (e.g. rewards) in the work situation (Conrad et al., 1985; Lu et al., 2004). Weiss et al. (1967) supported this notion by stating that each person seeks to achieve and maintain correspondence with his or her work environment (satisfaction). Correspondence with the environment at work can be described in terms of the individual fulfilling the requirements of this environment (satisfactoriness), and the work environment fulfilling the requirements of the individual (satisfaction) (Cook et al., 1981).

5.3.6.2 **Review of the Theoretical Development of the Concept**

Motivational and job satisfaction theories provided a strong basis in understanding human behaviour in organisations. Leading theorists such as Maslow (1943; 1954) and Herzberg and Mausner (1957) emphasised the importance of the fulfillment of various needs of employees that will determine their satisfaction with work. Various other theories and motivational models also contribute to the understanding of human behaviour in the workplace such as the valence-instrumentality-expectancy (VIE) theory of Vroom (1964); achievement theory of McClelland (1961) and job characteristics model of Hackman and Oldham (1975).
A constant debate in job satisfaction literature is the effect of situational and dispositional mechanisms on attitude formation. Support exists that both contribute, independently and/or interactively, to the variance in job satisfaction (Arvey et al., 1991; Rothman & Coetzer, 2002; Steel & Rentsch, 1997).

A large variety of job satisfaction dimensions were previously investigated (e.g. Locke, 1976; Lu et al., 2004; Spector, 1997; Weiss et al., 1967). The following dimensions of job satisfaction were most frequently mentioned by nurses in previous research: Compensation (salary, pay, benefits), advancement (promotion opportunities), responsibility, working conditions, co-workers, recognition and independence (autonomy). To a lesser extent social status, supervision, security and company policies and practices were also mentioned (e.g. Adams & Bond, 2000; Blegan, 1993; Jewkes et al., 1998; Lee, 1998; Lundh, 1999; Mottaz, 1988; Newman et al., 2002; Nolan et al., 1995; Nolan et al., 1998; Price, 2002; Seo et al., 2004; Shields & Ward, 2001; Thom, 2003; Tovey & Adams, 1999; Tzeng, 2002b; Wang in Lu et al., 2004).

5.3.6.3 Relationships with the other Concepts

A review of the literature indicated that a relationship exists between organisational culture and job satisfaction (Lund, 2003; Skogstad & Einarsen, 1999; Sempane et al., 2002; Tepeci & Bartlett, 2002). However, evidence regarding this relationship is relatively limited.

Studies have consistently shown that job satisfaction is significantly related to turnover – i.e. the greater the job satisfaction, the less the likelihood that the individual will leave the organisation (Tett & Meyer, 1993). Many studies have analyzed the relationship between turnover and job satisfaction (e.g. Brewer & Nauenberg, 2003; Chiu & Francesco, 2003; Dole & Shroeder, 2001; Firth et al., 2004; Gaertner, 1999; Gauci Borda & Norman, 1997; Ghiselli et al., 2001; Iverson, 1999; Lu et al., 2004; Lee et al., 2003; Lui et al., 2001; Poon, 2004; Rosin & Korabik, 1995; Yin & Yang, 2002). Compensation (salary, pay and fringe benefits), advancement (promotion opportunities),
autonomy and relationships with co-workers were mostly mentioned as factors that influence nurses to stay or leave (Atencio et al., 2003; Cavanagh, 1990; Cavanagh & Coffin, 1992; Currivan, 1999; Finn, 2001; Jernigan et al., 2002; Iverson, 1999; Lee et al., 2003; Mottaz, 1988; Stolte & Myers, 1995; Yin & Yang, 2002).

The above discussion concluded the secondary objectives of the literature. The next section deals with the empirical findings.

5.4 Empirical Findings

The empirical findings will be discussed in two phases. Phase 1 deals with the descriptive statistics of variables, as well as their factor and reliability analysis.

5.4.1 Phase 1

5.4.4.1 Descriptive Statistics

Phase 1 of the statistical procedure will be discussed next. This includes the descriptive statistics, factor analysis and item analysis. The Organisational Culture Survey, Knowledge Sharing Questionnaire, Organisational Commitment Questionnaire, Organisational Citizenship Behaviour Questionnaire, Minnesota Satisfaction Questionnaire (MSQ20) and the Turnover Intentions Questionnaire have a normal distribution with references to the frequencies of the data set. This emphasises the advantage of using questions rather than statements, as suggested by Schepers (1992), as respondents now have to apply their minds to the content of the questions.

5.4.4.2 Factor Analysis

A factor analysis of each of the questionnaires was conducted and is discussed next.
5.4.4.2.1 Organisational Culture Survey

Validity

Kerlinger (1986) defined content validity as the representativeness or sampling adequacy of the content. Content validity is guided by the question: “Is the content of this measure representative of the content or the universe of content of the property being measured?” Content validation consists essentially in judgement and representativeness of items must be assumed. Taking the procedure of Van der Post et al. (1997) to compile the Organisational Culture Questionnaire, eliminating various items (97 remains from the original 169), as well as involving a panel of South African human resource experts to group the dimensions that overlap into logical categories, one can assume content validity for the Organisational Culture Survey.

Criterion validity is seen by Kerlinger (1986) as the predictive value of the test, normally measured against an outside criterion. According to Kerlinger (1986) prediction is actually the main purpose of any test. To find this criterion is a difficult process. One can probably assume that the Organisational Culture Survey has prediction validity. Van der Post et al. (1998) for example found that organisational culture predicts financial performance of institutions.

It seems that the Organisational Culture Survey also has construct validity. At the first level of the factor analysis for the Organisational Culture Survey, eight factors emerged. On the second level factor analysis, one factor emerged explaining 84% of the variance in the factor space. A high factor at the second level suggests that a single construct is measured in the Organisational Culture Survey.

Reliability

Cortina (1993) suggested that a Cronbach Alpha of 0.70 or more, is significant. A Cronbach Alpha of 0.923 was obtained for the Organisational Culture Survey. This is an
indication of an acceptable reliability. This is consistent with previous results. Erwee et al. (2001) reported a Cronbach Alpha of 0.991 on an Australian sample, while Sempane et al. (2002) reported a Cronbach Alpha Coefficient of 0.987 on a diverse South African sample.

5.4.4.2.2 Knowledge Sharing Questionnaire

Validity

The content validity of the knowledge sharing questionnaire is debatable. First of all, one should keep in mind that the theoretical concept is not well defined, immediately creating possible loopholes in questionnaire construction. Since limited empirical evidence existed, a questionnaire was constructed. However, content validity for the knowledge sharing questionnaire in this study is based on two important assumptions. First, a thorough theoretical overview was conducted to compile the questionnaire as explained in Chapter 3. Second, the first level factor analysis yielded 5 factors, while it consisted of six sections representing different domains of knowledge sharing (i.e. why knowledge is shared, opportunities for knowledge sharing, the contribution of knowledge sharing to the organisation, why others readily share knowledge, why one would not readily share knowledge and why others do not readily share knowledge). Although the factor analysis was mainly to determine factorial or construct validity, it clearly indicates that the items included a broad domain of the concept. Content validity is therefore assumed.

The Knowledge Sharing Questionnaire’s construct validity might be questioned, therefore further testing of the questionnaire is recommendable. At the first level of the factor analysis for the Knowledge Sharing Questionnaire, five factors emerged. On the second level factor analysis two factors emerged. Factor one explains about 44% of the variance and factor two about 20% variance in the factor space. As noted in Chapter 4, the second factor did not conform to normality and was later rejected in the General Linear Modelling in composing a final predictive model of turnover intentions.
Reliability

Cortina (1993) suggested that a Cronbach Alpha of 0.70 or more is significant. A Cronbach Alpha of 0.839 was obtained for second level factor (scale) one and 0.838 for second level factor (scale) two. This is an indication of an acceptable reliability.

5.4.4.2.3 Organisational Commitment Questionnaire

Validity

It can be assumed that the Organisational Commitment Questionnaire has content validity, as it includes a range of different foci. It seems that the Organisational Commitment Questionnaire has construct validity. At the first level of the factor analysis for the Organisational Commitment Questionnaire, seven factors emerged. On the second level factor analysis one factor emerged, explaining 42% of the variance in the factor space.

Reliability

Cortina (1993) suggested that a Cronbach Alpha of 0.70 or more is significant. A Cronbach Alpha of 0.926 was obtained for the Organisational Commitment Survey. This is an indication of an acceptable reliability.

This is consistent with findings of Roodt (1997) (Cronbach Alpha of 0.914), Storm and Roodt (2001) (Cronbach Alpha of 0.94), Pretorius and Roodt (2004) (Cronbach Alpha of 0.91) and Janse van Rensburg on a shortened version of the questionnaire (Cronbach Alpha of 0.88).
5.4.4.2.4 Organisational Citizenship Behaviour Questionnaire

Validity

The Organisational Citizenship Behaviour Questionnaire content validity might be questionnable. Helping behaviour and voice is consistently measured with a relative small number of items. Both helping and voice are relatively simple (easy) concepts to understand. This may be an indication of content validity (the items are representative of what the concept wants to measure).

It seems that the Organisational Citizenship Behaviour Questionnaire has construct validity. At the first level of the factor analysis for the Organisational Citizenship Behaviour Questionnaire three factors emerged. On the second level factor analysis, one factor emerged explaining 70% of the variance. A high factor loading at the second level suggests that a single construct is measured in the Organisational Citizenship Behaviour Questionnaire.

Reliability

Cortina (1993) suggested that a Cronbach Alpha of 0,70 or more is significant. A Cronbach Alpha of 0,923 was obtained for the Organisational Citizenship Behaviour Questionnaire. This is an indication of an acceptable reliability.

This is consistent with the findings of Van Dyne et al. (2002) who reported a Cronbach Alpha of 0,87 for helping behaviours, while Dyne and Lepine (1998) reported Cronbach alphas of 0,85 for helping and 0,82 for voice.
5.4.4.2.5 **Job Satisfaction**

**Validity**

One can argue that the MSQ20 has *content validity*. This may be due to its wide range of use by researchers, and also that it is a shorter version of a multi-faceted questionnaire. It seems that the Minnesota Satisfaction Questionnaire (MSQ20) has *construct validity*. At the first level of the factor analysis for the Minnesota Satisfaction Questionnaire, four factors emerged. On the second level factor analysis, one factor emerged explaining 57% of the variance in the factor space.

**Reliability**

Cortina (1993) suggested that a Cronbach Alpha of 0,70 or more is significant. A Cronbach Alpha of 0,886 was obtained for the Minnesota Satisfaction Questionnaire. This is an indication of an acceptable reliability. This is consistent with findings from Sempane et al. (2002) (Cronbach Alpha of 0,916), while Pierce et al. (cited by Cook et al., 1981) reported alpha coefficients of 0,88 and 0,84 for intrinsic and extrinsic satisfaction respectively.

5.4.4.2.6 **Turnover Intentions Questionnaire**

**Validity**

Since more items were included than normal for measuring turnover intentions, one can possibly argue, but not necessarily so, that *content validity* can be assumed as a broad range of items were included. *Criterion validity* is seen by Kerlinger (1986) as the predictive value of the test, normally measured against an outside criterion. A possible criterion of this questionnaire will be actual turnover. Many researchers reported a high correlation between turnover intentions and actual turnover. Shields and Ward (2001) reported that quitting intentions were the strongest predictor of actual turnover, with 79%
of nurses in a longitudinal study reporting an intention to quit and did so within one year. Steel and Ovalle (1984) reported in a large number of studies between 1965 and 1983, a correlation coefficient of 0.50 between quitting intentions and actual turnover.

It also seems that the Turnover Intentions Questionnaire has construct validity. At the first level of the factor analysis for the Turnover Intentions Questionnaire, two factors emerged. On the second level factor analysis one factor emerged, explaining 85% of the variance in the factor space. A high factor loading at the second level suggests that a single construct is measured in the Turnover Intentions Questionnaire.

Reliability

Cortina (1993) suggested that a Cronbach Alpha of 0.70 or more is significant. A Cronbach Alpha of 0.913 was obtained for the Turnover Intentions Questionnaire. This is an indication of an acceptable reliability.

The next section deals with the interrelationships of the variables in the study.

5.4.2 Phase 11

5.4.2.1 Coefficients of Association

The results of the coefficients of association indicated the following large effects sizes:

1) The type of hospital (private or public) has large effects sizes with race (0.646), home language (0.622) and rank (0.558).

2) Tenure in the hospital has a large effect size with tenure in unit (0.559), while tenure in profession has a large effect size with age (0.656).

3) Race has a large effect size with home language (0.606)
As stated in Chapter 3, whites are predominantly employed by private hospitals and their home language is Afrikaans. Africans are predominantly employed by public hospitals and their home language is an African language. Tenure in a unit can also be associated with tenure in the current hospital, while tenure in the profession and age naturally is inseparable in most instances.

5.4.2.2 Intercorrelations

The results of the intercorrelations indicated the following relationships:

(1) A significant positive correlation exists between organisational culture and knowledge sharing, organisational commitment, organisational citizenship behaviour and job satisfaction.

(2) A significant negative correlation exists between organisational culture and turnover intentions.

(3) Both scales (second order factors) of knowledge sharing have a negative correlation with turnover intentions.

(4) A significant negative correlation exists between organisational commitment and turnover intentions.

(5) A significant negative correlation exists between job satisfaction and turnover intentions.

(6) No significant correlation exists between organisational citizenship behaviour and turnover intentions.

The above results also give an indication as to whether a pre-condition to test mediation with a trivariate approach (Baron & Kenny, 1986) are met, namely if any significant
relationships exist between concepts. From the above it can be seen that OCB’s will not mediate the relationship between organisational culture and turnover intentions.

The results of the hypotheses will be discussed next. Directional hypotheses were formulated in cases where there was clear theoretical evidence. Non-directional hypotheses were formulated in cases where the theory was contradictory or where theoretical evidence was not available or inconclusive. A hypothesis was formulated first to test for the relationship between organisational culture and turnover intentions. Thereafter different sub-hypotheses were formulated to test for differences in organisational culture and turnover intentions on a bivariate level. An integrative hypothesis will be formulated where a multivariate approach is followed in predicting organisational culture and turnover intentions. The results of the hypotheses regarding the predictive and mediating role of the variables will be discussed, followed by presenting and discussing the final most parsimonious model for predicting turnover intentions.

5.4.2.3 Hypotheses

Hypothesis 1 (Empirical research objective 1)

There is no statistically significant relationship between organisational culture and turnover intentions of professional nurses.

The result of this study indicated that a statistically significant negative relationship exists between organisational culture and turnover intentions. This finding does not support the above hypothesis. This result also supports the notion of Coile (2001), who reported that hospitals with lower turnover clearly indicated a more positive organisational culture than the others.

This is an important finding, because no evidence in the relevant literature could be found about the relationship between organisational culture and turnover intentions. This
finding also supports the view that organisational culture contributes to organisational success and outcomes (Bagraim, 2001; Kotter & Heskett, 1992; Martins & Martins, 2002; Rashid et al., 2004).

Next, the predictive role of demographic variables in organisational culture will be discussed.

**Hypothesis 2 (Empirical research objective 2)**

The following hypotheses test for perceived differences in organisational culture on a bivariate level based on the following demographic categories:

**Sub – Hypothesis 2.1 (sub-cultures)**

(a) **There is no statistically significant difference between professional nurses’ perception of organisational culture in private and public hospitals.**

The result of this study indicated that professional nurses in private hospitals perceive organisational culture more positively than professional nurses in public hospitals. This finding does not support the above hypothesis.

This result supports, to a certain degree, the findings of Parhizgari and Gilbert (2004), who found significant differences between measures of organisational effectiveness of private and public sectors. The significant difference in professional nurses’ perception of the organisational culture in different type of hospitals is an important finding. One should keep in mind that South African hospitals are divided into either provincial hospitals (public services) or private hospitals.

(b) **There is no statistically significant difference between professional nurses’ perception of organisational culture in different units of the hospitals.**
The result of this study indicated that there are no significant differences in mean scores between the different units in the hospital for organisational culture. This finding supports the above hypothesis and the findings of Petkoon and Roodt (2004), who reported no significant differences in mean culture scores between sub-cultures of various functional departments of a transport organisation.

The result is not supportive to the views of Alvesson (1995); Bagraim (2001); Kotter and Heskett (1992); and Schein (1992) that sub-cultures will naturally emerge within the broader culture of the organisation.

Sub – Hypothesis 2.2 (tenure)

(a) There is no statistically significant difference between different tenure groups of professional nurses in their profession and their perception of organisational culture.

The result of this study indicated that professional nurses with more than 20 years of service in their profession are statistically significantly more positive about the organisational culture than categories with less tenure in their profession. This finding does, therefore, not support the above hypothesis.

This is an important finding, because no evidence in the relevant literature could be found to support any differences between different tenure groups of professional nurses in their profession and their perception of organisational culture.

(b) There is no statistically significant difference between different tenure groups of professional nurses in their units and their perception of organisational culture.
The result of this study indicated that there are no significant differences in mean scores between the different tenure categories in current units for organisational culture. This finding supports the above hypothesis.

This is an important finding, because no evidence in the relevant literature could be found to support any differences between different tenure groups of professional nurses in their profession and their perception of organisational culture.

(c) Professional nurses with longer tenure in their current hospital are statistically significant more positive about the organisational culture than professional nurses with less years of service.

The result of this study indicated that there are no significant differences in mean scores between the different tenure categories in their current hospital for organisational culture. This finding does not support the above hypothesis and contradicts Sempane et al. (2002) findings that employees with longer years of service view organisational culture more favourably. This result also contradicts the notion supported by Carroll and Harrison (1998) that the tenure-culture link is usually positive.

Sub – Hypothesis 2.3 (age)

There is no statistically significant difference between professional nurses’ age groups and their perception of organisational culture.

The result of this study indicated that professional nurses of 50 years and older are significantly more positive about the organisational culture than individuals between 30-39 years. Individuals between 40-49 years are more positive about organisational culture than individuals between 30-39 years. Although the differences between all age groups are not statistically significant, it seems that older workers generally perceive organisational culture more positively. This finding does not support the above hypothesis.
This result contradicts the findings of Petkoon and Roodt (2004) who reported that respondents in a transport company in the age groups 46 – 54 are least positive, whilst respondents in the age group 36-45 are more positive about the culture of their division.

**Sub – Hypothesis 2.4 (level of education)**

**There is no statistically significant difference between professional nurses’ levels of education and organisational culture.**

The result of this study indicated that there are no significant differences in mean scores between the different educational level categories for professional nurses regarding organisational culture. This finding supports the above hypothesis.

This is an important finding, because no evidence in the relevant literature could be found to support any differences between professional nurses’ level of education and their perception of organisational culture.

**Sub – Hypothesis 2.5 (gender)**

**There is no statistically significant difference between male and female professional nurses and organisational culture.**

Due to insufficient number of males in the final sample, the hypothesis was not tested. Gender is therefore also not included in further analysis for this study.

**Sub – Hypothesis 2.6 (race)**

**There is no statistically significant difference between different racial categories of professional nurses and organisational culture.**
The result of this study indicated that African respondents are less positive about the organisational culture than Whites or Coloureds. This finding does not support the above hypothesis.

This is an important finding, because no evidence in the relevant literature could be found to support any differences between racial groups of professional nurses and their perception of organisational culture.

Sub – Hypothesis 2.7 (home language)

There is no statistically significant difference between different home language categories of professional nurses and organisational culture.

The result of this study indicated that Afrikaans home language professional nurses perceive the organisational culture more positively than English or other, and African home language individuals. This finding does not support the above hypothesis.

This is an important finding, because no evidence in the relevant literature could be found to support any differences between home language preferences of professional nurses and their perception of organisational culture.

Sub – Hypothesis 2.8 (level of seniority)

There is no statistically significant difference between different levels of seniority of professional nurses and organisational culture.

The result of this study indicated that chief professional nurses or unit managers experience the organisational culture less positively than senior professional nurses or professional nurses. The hypothesis is therefore not supported, contradicting the findings of Chatman, Polzer, Barsada and Neale (1998) who reported no relationship between different levels of seniority (job levels) and organisational culture.
Sub – Hypothesis 2.9 (marital status)

**Married professional nurses are statistically significant more positive about the organisational culture than unmarried, divorced or widowed professional nurses.**

The result of this study indicated that there are no significant differences between the different marital groups for organisational culture. The finding does not support the above hypothesis and contradicts the findings of Sempane et al. (2002) that married workers perceived organisational culture more positively than single workers.

Sub – Hypothesis 2.10 (number of dependents)

(a) **There is no statistically significant difference between the different number of dependents under the age of 18 years of professional nurses and organisational culture.**

The result of this study indicated that professional nurses with three or more dependents under the age of 18 years, perceive the organisational culture less positively than individuals without any, or with one dependent. This finding does not support the above hypothesis.

This is an important finding, because no evidence in the relevant literature could be found to support any differences between number of dependents under 18 years and professional nurses' perception of the organisational culture.

(b) **There is no statistically significant difference between the different number of dependents above the age of 18 years of professional nurses and organisational culture.**
The result of this study indicated that professional nurses with three or more dependents above the age of 18 experienced the organisational culture less positively than individuals without, one or two dependents. An inverse relationship exists, therefore, between the number of dependents above the age of 18 and organisational culture. This finding does not support the above hypothesis.

No evidence in the relevant literature could be found to support any differences between number of dependents under 18 years and professional nurses’ perception of the organisational culture. This result contributes to understanding the role of kinship responsibilities and/or dependents above 18 of the perception of professional nurses towards the organisational culture in hospitals.

The results of the independent and/or interactive role of demographic variables in explaining organisational culture will be discussed next.

**Integrative Hypothesis 2 (Empirical research objective 2)**

Various demographical variables [sub-cultures (type of hospital, unit), tenure (in profession, unit, hospital), age, level of education, race, language preference, level of seniority, marital status, number of dependents (under 18 years, above 18 years) independently and/or interactively predict organisational culture.

In applying the multi factor analysis of variance (ANOVA) with all demographic variables entered simultaneously as predictors of organisational culture, 22% of the variance was independently and/or interactively explained by the factors as depicted in Figure 5.1.
Figure 5.1: An Integrative Predictive Model of Organisational Culture by using Demographic Variables

The result of this study indicated that the perception of organisational culture of professional nurses could be predicted by private hospitals; between 30-39 years old; 50 years and older X chief professional nurse/unit manager; private hospitals X three or more dependents above 18; African professional nurses X Afrikaans as home language; 50 years and older X Afrikaans as home language; and more than 20 years in profession X between 30-39 years old.

This is an important finding, because no evidence in the literature could be found to support the fact that different demographic variables (sub-cultures, tenure, age, level of education, gender, race, language preference, level of seniority, marital status, number of dependents) are interactively significant predictors of organisational culture. The
emphasis is usually on one or more of the above variables, but not all of them simultaneously in the equation.

Next, the predictive role of demographic variables in turnover intentions will be discussed.

**Hypothesis 3 (Empirical research objective 3)**

The following hypotheses test for perceived differences in turnover intentions on a bivariate level based on the following demographic categories:

**Sub – Hypothesis 3.1 (sub-cultures)**

(a) **There is no statistically significant difference between professional nurses’ turnover intentions in private and public hospitals.**

The result of this study indicated that professional nurses in private hospitals turnover intentions are statistically significantly lower than professional nurses in public hospitals. This finding does not support the above hypothesis. This result supported Tzeng (2002a) finding that turnover intentions differ between a privately owned and a local hospital in Taiwan.

(b) **There is no statistically significant difference between professional nurses’ turnover intentions in different units of the hospitals.**

The result of this study indicated there are no significant differences between the different units in the hospital for professional nurses’ turnover intentions. This finding supports the above hypothesis.
This is an important finding, because no evidence in the relevant literature could be found to support any differences between different units in hospitals of professional nurses’ turnover intentions.

Sub – Hypothesis 3.2 (tenure)

(a) There is no statistically significant difference between different tenure groups of professional nurses in their profession and turnover intentions.

The result of this study indicated that professional nurses with more than 20 years of tenure in their profession are statistically significantly less inclined to turnover than professional nurses between 6-10 years. This finding does not support the above hypothesis, and contradicts to a certain extent the opinion of Lee et al. (2000) that professional people have shorter tenures in organisations.

(b) There is no statistically significant difference between different tenure groups of professional nurses in their units and turnover intentions.

The result of this study indicated that there are no differences between tenure of professional nurses in the different units for turnover intentions. This finding supports the above hypothesis.

This is an important finding, because no evidence in the relevant literature could be found to support any differences between different tenure groups in units of professional nurses’ turnover intentions.

(c) There is no statistically significant difference between different tenure groups of professional nurses in their hospital and turnover intentions.
The result of this study indicated professional nurses with 11 years and more tenure are statistically significantly more inclined to quit than professional nurses with less years of service. This finding does not support the above hypothesis.

This contradicts the research findings that length of service seems to lower turnover intentions (Aryee & Chay, 2001; Chiu & Francesco, 2003; Russ & McNeilly, 1995), as well as the findings of Yin and Yang (2002) who found no relation between tenure and nurse turnover.

Sub – Hypothesis 3.3 (age)

There is no statistically significant difference between professional nurses’ age groups and turnover intentions.

The result of this study indicated that professional nurses 50 years and older are statistically significantly less inclined to leave than professional nurses in the age categories 40-49 years and 30-39 years. This finding does not support the above hypothesis. A non-directional was originally formulated due to contradicting research findings. It is therefore important to discuss how this finding contributes to previous research findings.

This result supports to an extent the view of Boshoff et al. (2002) that age, although less significant compared with constructs like commitment when simultaneously entered into an equation, is the most prominent demographic variable to predict turnover intentions. Chiu and Fransesco (2003) also found that older nurses were less inclined to quit. This result is also consistent with the view that organisational commitment is regarded as the best predictor for turnover intentions (Mowday et al., 1982) and that age predicts organisational commitment (Arnold & Feldman, 1982; Chen et al., 1998; Lok & Crawford, 2004; Lok & Crawford, 1999; Mathieu & Zajac, 1990). This is also similar to findings that older nurses are more organisationally committed (Lok & Crawford, 1999; Lu et al., 2002).
This result contradicts findings that older nurses were more inclined to quit (Brewer & Nauenberg, 2003; Tzeng, 2002a). Chen et al. (1998), Rosen and Korabik (1995) and Yin and Yang (2002) reported no relationship.

This is an important result since this is the first finding of the predictive role of age of professional nurses’ turnover intentions in South African hospitals that could so far be established.

Sub – Hypothesis 3.4 (level of education)

Professional nurses with higher educational levels are statistically significant more inclined to turnover intentions than professional nurses with lower educational levels.

The result of this study indicated that there are no significant differences between the different educational level categories of professional nurses’ turnover intentions. This finding does not support the above hypothesis.

This result contradicts support that higher educational levels lead to higher turnover intentions (Chiu & Francesco, 2003; Tzeng, 2002a; Yin & Yang, 2002). This also contradicted the findings of Boshoff et al. (2002) in a financial institution and university that individuals with higher educational levels were more intent to quit.

This finding does not support the notions of Lu et al. (2004), Iverson (1999) and Shields and Ward (2001). They argued that higher levels of education are associated with significantly lower levels of job satisfaction which is also regarded as an important predictor for turnover.
Sub – Hypothesis 3.5 (gender)

There is no statistically significant difference between male and female professional nurses and their turnover intentions.

Due to insufficient male respondents, the hypothesis could not be tested.

Sub – Hypothesis 3.6 (race)

There is no statistically significant difference between different racial categories of professional nurses and turnover intentions.

The result of this study indicated that African professional nurses are more inclined to quit than Coloured or White professional nurses. This finding does not support the above hypothesis.

This result supports the findings of Dole and Shroeder (2001) that ethnic groups moderate the relationship between job satisfaction and turnover intentions. It is also consistent with the findings of Vallabh and Donald (2001) who found that white employees are more committed (as a predictor of turnover intentions) than their black colleagues.

This is an important finding since inconclusive evidence existed regarding race groups of professional nurses and turnover intentions in South African hospitals.

Sub – Hypothesis 3.7 (home language)

There is no statistically significant difference between different home language categories of professional nurses and turnover intentions.
The result of this study indicated that professional nurses with Afrikaans as home language are less inclined to resign than professional nurses with English or other as home language and professional nurses with an African home language. Professional nurses with English as home language are also less inclined to quit than professional nurses with an African home language. This finding does not support the above hypothesis.

This is an important result since no evidence existed regarding home language preference of professional nurses and their turnover intentions in South African hospitals.

Sub – Hypothesis 3.8 (level of seniority)

There is no statistically significant difference between different levels of seniority of professional nurses and turnover intentions.

The result of this study indicated that chief professional nurses/unit managers are more inclined to quit than professional nurses or senior professional nurses. This finding does not support the above hypothesis.

This result supports the findings of Rosin and Korabik (1995) that position characteristics are strong predictors of turnover intentions. This result contradicts the findings of Lui et al. (2001) who indicated that higher positional levels explain lower turnover intentions. This result also does not support Yin and Yang (2002) findings, through a meta-analysis of 129 studies, that position does not correlate with nurse turnover.

Sub – Hypothesis 3.9 (marital status)

There are no statistically significant differences in turnover intentions between married/co-habitating nurses and unmarried, widowed or divorced nurses.
The result of this study indicated that there are no differences for professional nurses between the different marital categories for turnover intentions. This finding supports the above hypothesis.

This result does not support overwhelming evidence that married nurses’ turnover intentions are lower than unmarried, widowed or divorced nurses (Abu Ajamieh, Misener, Haddock & Gleaton, 1996; Brewer & Nauenburg, 2003; Iverson, 1999; Rosin & Korabik, 1995; Yin & Yang, 2002).

Sub – Hypothesis 3.10 (number of dependents)

(a) Professional nurses with greater number of dependents under the age of 18 years will statistically significant be less inclined to quit than those who have less dependents.

The result of this study indicated that professional nurses without any dependents under the age of 18 are less inclined to quit than employees with one, two or three dependents. This finding does not support the above hypothesis.

This result contradicts strong support in the literature for the negative relationship between kinship responsibility and voluntary turnover (Hom & Griffeth, 1995; Iverson, 1999). The view is that employees with kinship responsibilities are more dependent on the organisation to fulfill financial needs, and are therefore more likely to stay. This result also contradicts Brewer and Nauenburg (2003) findings that the number of children, below six years, influence organisational commitment (as predictor of turnover) of nurses. Tzeng (2002a) reported that having fewer children predicts a higher intention of nurses to quit. This result also contradicts the findings of Cavanagh (1990) who found that 232 US hospital nurses’ turnover could be predicted using kinship responsibility, as well as Cavanagh and Coffin (1992) in a sample of 221 nurses (80,5% public and 19,5% private hospital).
(b) There is no statistically significant difference between the different number of dependents above the age of 18 years of professional nurses and turnover intentions.

The result of this study indicated that professional nurses with three or more dependents above the age of 18 are more inclined to quit than employees without dependents or with one dependent. This finding does not support the above hypothesis.

This is an important finding, because no evidence in the relevant literature could be found to support any differences to whether there is a relationship between the number of dependents above the age of 18 and turnover intentions.

The results of the independent and/or interactive role of demographic variables in explaining turnover intentions will be discussed next.

**Integrative Hypothesis 3 (Empirical research objective 3)**

Various demographical variables [sub-cultures (type of hospital, unit), tenure (in profession, unit, hospital), age, level of education, race, language preference, level of seniority, marital status, number of dependents (under 18 years, above 18 years)] independently and/or interactively predict turnover intentions.

In applying the multi factor analysis of variance (ANOVA) with all demographic variables entered simultaneously as predictors of turnover intentions, 24% of the variance was independently and/or interactively explained by the factors as depicted in Figure 5.2.
Figure 5.2: An Integrative Predictive Model of Turnover Intentions by using Demographic Variables

The result of the study indicated that the following demographic variables independently or interactively predict professional nurses’ turnover intentions: African professional nurses; 50 years and older X Afrikaans; Paediatric/Maternity X Afrikaans; between 1-5
years in current unit X chief nurse/unit manager; not married X no dependent above 18; 11 years or more in hospital X no dependents above 18; ICU/Casualties X nursing diploma/post diploma; ICU/Casualties X three or more dependents above 18; private hospital X married/co-habitating; 6-10 years in profession X three or more dependents above 18; and Paediatric/Maternity X three or more dependents above 18.

This is an important finding, because no evidence in the literature could be found to support the fact that different demographic variables (sub-cultures, tenure, age, level of education, gender, race, language preference, level of seniority, marital status, number of dependents) are interactively significant predictors of turnover intentions. The emphasis is usually on one or more of the above variables, but not all of them simultaneously in the equation.

Next, the results of the independent and/or interactive role of organisational culture, knowledge sharing, organisational commitment, organisational citizenship behaviours and job satisfaction to predict turnover intentions are discussed.

**Integrative Hypothesis 4 (Empirical research objective 4)**

Organisational culture, knowledge sharing, organisational commitment, organisational citizenship behaviours and job satisfaction **independently** (individually) or **interactively** (combined) predicts turnover intentions.

The following hypotheses test whether the independent variable (organisational culture) and/or any of the mediating variables, knowledge sharing, organisational commitment, organisational citizenship behaviour and job satisfaction emerged as independent predictor when simultaneously entered into the equation. The results are illustrated in Figure 5.3.
The results of the hypotheses testing whether variables emerged as independent variables will be discussed first.

**Sub - Hypothesis 4.1**

**Organisational culture independently does not significantly predict turnover intentions.**

The result of this study indicated that organisational culture does not independently predict turnover intentions. This finding supports the above hypothesis.

This is an important finding, because no evidence in the relevant literature could be found to support whether organisational culture independently predicts turnover intentions.
Sub - Hypothesis 4.2

Knowledge sharing independently does not significantly predict turnover intentions.

The result of this study indicated that knowledge sharing does not independently predict turnover intentions. This finding supports the above hypothesis.

No evidence in the relevant literature could be found to support whether knowledge sharing independently predicts turnover intentions. This result contributes to understanding the role of knowledge sharing in the relationship between organisational culture and turnover intentions.

Sub - Hypothesis 4.3

Organisational commitment independently does not significantly predict turnover intentions.

The result of this study indicated that organisational commitment does independently predict turnover intentions. This finding does not support the above hypothesis.

Although no evidence exists as to whether organisational commitment independently predicts turnover intention in a linear equation as proposed, this result is consistent with previous research findings that organisational commitment is a significant predictor of turnover intentions (Boshoff et al., 2002; Chen et al., 1998; Cohen, 1998; Cohen, 1993; Firth et al., 2004; Meyer et al., 2002; Iverson, 1999; Mowday et al., 1982; Rosin & Korabik, 1995; Schwepker, 2001; Shore et al., 1990; Vallab & Donald, 2001; Williams & Hazer, 1986).

This is an important finding since organisational commitment is the only variable that emerged as an independent predictor of turnover intentions.
Sub - Hypothesis 4.4

Organisational citizenship behaviour independently does not significantly predict turnover intentions.

The result of this study indicated that organisational citizenship behaviour does not independently predict turnover intentions. This finding supports the above hypothesis.

This result does not support the findings that organisational citizenship behaviour has a negative relation with turnover intentions (Aryee & Chay, 2001; Chen et al., 1998; Cropanzano et al., 2003).

Sub - Hypothesis 4.5

Job satisfaction independently does not significantly predict turnover intentions.

The result of this study indicated that job satisfaction does not independently predict turnover intentions. This finding supports the above hypothesis.

To a certain extent, this result does not support the findings of various other researchers that job satisfaction is a significant and probably the most important predictor of turnover intentions (Chiu & Francesco, 2003; Day et al., 1998; Dole & Shroeder, 2001; Firth et al., 2004; Iverson, 1999; Lui et al., 2001; Poon, 2004; Rosin & Korabik, 1995; Shields & Ward, 2001; Shore et al., 1990; Tzeng, 2002a; Yin & Yang, 2002). It should however be noted, as was also the result of this study, that a significant relationship does exist between job satisfaction and turnover intentions (Figure 4.2).

The results of the above hypotheses investigated whether any variables emerged as independent predictors of turnover intentions in a linear equation.
In hypothesis 4 it is also stated, that a multivariate approach will be followed to test for the interaction between organisational culture, knowledge sharing, organisational commitment, organisational citizenship behaviours and job satisfaction to predict turnover intentions. The results thereof are discussed next.

**Integrative Hypothesis 4**

The results of the integrative hypothesis are illustrated in Figure 5.3.

The results of this study indicate that organisational commitment emerged as an independent variable to predict turnover intentions. Various interactions emerged to predict turnover intentions. Organisational culture interacts firstly with job satisfaction and secondly with knowledge sharing to contribute negatively to determine the output variable (positively in the sense that it decreases turnover intentions).

Organisational culture also interacts with OCB’s, but in this instance contributes to higher turnover intentions. It is therefore clear that the above-mentioned variables interactively explain the variance in turnover intentions. The hypothesis is therefore supported.

The result did not support the findings of Tett and Meyer (1993) and Iverson (1999) that job satisfaction correlated slightly more strongly with turnover intentions than did organisational commitment. It can be seen that organisational commitment emerged as the only independent variable explaining turnover intentions.

Next, the results of the mediating role of knowledge sharing, organisational commitment, organisational citizenship behaviours and job satisfaction between organisational culture and turnover intentions will be discussed.
Integrative Hypothesis 5 (Empirical research objective 5)

The relationship between organisational culture and turnover intentions is not significantly mediated by knowledge sharing, organisational commitment, organisational citizenship behaviours and job satisfaction.

The following hypotheses individually test for possible mediating effects between organisational culture and turnover intentions:

Sub - Hypothesis 5.1

The perceptions of knowledge sharing do not significantly mediate the relationship between organisational culture and turnover intentions.

The results of the trivariate approach (Baron & Kenny, 1986) indicated that knowledge sharing partially mediated the relationship between organisational culture and turnover intentions. This finding does not support the above hypothesis. The results of the GLM approach indicated that knowledge sharing moderates organisational culture in the prediction of turnover intentions (the interaction of organisational culture and knowledge sharing in the final model predicts turnover intentions).

This is an important finding, since no empirical research evidence could be found relating to the mediating effect of knowledge sharing on the relationship between organisational culture and turnover intentions.

This result contributes in describing the relationship between organisational culture and knowledge sharing, previously lacking in research (Gupta et al., 2002; Haldin-Herrgard, 2000; Hislop, 2003; Husted & Michailova, 2002; Jones et al., 2004; McDermott & O'Dell, 2001; Ryu et al., 2003; Yang & Wan, 2004). Since very little empirical evidence is available regarding the relationship between knowledge sharing and turnover intentions
(Hislop, 2003), this result also contributes to understanding and explaining this relationship.

**Sub-Hypothesis 5.2**

The relationship between organisational culture and turnover intentions is not significantly mediated by organisational commitment.

The results of the trivariate approach (Baron & Kenny, 1986) indicated that organisational commitment partially mediated the relationship between organisational culture and turnover intentions. This finding does not support the above hypothesis. The results of the GLM approach indicated that organisational commitment did not mediate the relationship between organisational culture and turnover intentions (organisational commitment emerged as an independent predictor in the final model predicting turnover intentions).

This result supports previous research as many turnover models suggest that organisational commitment mediates the relationships with withdrawal (Allen et al., 2003; Hom & Griffeth, 1995). This result also overwhelmingly supports research that commitment is an important predictor of turnover intentions (Boshoff et al., 2002; Chen et al., 1998; Cohen, 1998; Cohen, 1993; Firth et al., 2004; Meyer et al., 2002; Iverson, 1999; Mowday et al., 1982; Rosin & Korabik, 1995; Schwepker, 2001; Shore et al., 1990; Vallabh & Donald, 2001; Williams & Hazer, 1986).

**Sub-Hypothesis 5.3**

Organisational citizenship behaviours do not statistically significantly mediate the relationship between organisational culture and turnover intentions.

The results of the trivariate approach (Baron & Kenny, 1986) indicated that organisational citizenship behaviour does not mediate the relationship between
organisational culture and turnover intentions. This finding supports the above hypothesis. The results of the GLM approach indicated that organisational citizenship behaviour moderates organisational culture in the prediction of turnover intentions (the interaction of organisational culture and organisational citizenship behaviour in the final model predicts turnover intentions).

This result also contributes to explaining the relationship between organisational culture and organisational citizenship behaviours, previously lacking (Stamper & Van Dyne, 2001). It also contributes to understanding the relationship between organisational citizenship behaviour and turnover intentions, previously not integrated as an important component of turnover (Chen et al., 1998; Podsakoff et al., 2000).

Sub - Hypothesis 5.4

The relationship between organisational culture and turnover intentions is not significantly mediated by job satisfaction.

The results of this study indicated that job satisfaction partially mediated the relationship between organisational culture and turnover intentions. This finding does not support the above hypothesis. The results of the GLM approach indicated that job satisfaction moderates organisational culture in the prediction of turnover intentions (the interaction of organisational culture and job satisfaction in the final model predicts turnover intentions).

This finding supports, to an extent, the notion of Poon (2004) who suggested that job satisfaction may mediate the relation between organisational politics (as a probable aspect of organisational culture) and turnover intentions. It also supports the importance of job satisfaction explaining turnover intentions (Chiu & Francesco, 2003; Dole & Shroeder, 2001; Firth et al., 2004; Iverson, 1999; Lui et al., 2001; Newman et al., 2002; Poon, 2004; Rosin & Korabik, 1995; Shields & Ward, 2001; Shore et al., 1990; Tzeng, 2002a; Yin & Yang, 2002).
5.5 **Final model: An Empirical Predictive Model of Turnover Intentions – achieving the primary goal of this study.**

The final model of the predictors of turnover intentions is displayed in Figure 5.4.

![Diagram](image-url)

**Figure 5.4: A Final Predictive Model of Turnover Intentions**
As can be seen from Figure 5.4 the following variables emerged towards increasing turnover intentions of professional nurses (undesirable for employers):

- the interaction between organisational culture and organisational citizenship behaviour;
- the interaction between professional nurses working 1 to 5 years in their current unit and having the position of chief professional nurse/unit manager; and
- 11 years or more in the current hospital and with no dependents above 18.

The following variables emerged regarding decreasing turnover intentions of professional nurses (desirable for employers):

- organisational commitment;
- the interaction between organisational culture and job satisfaction;
- the interaction between organisational culture and knowledge sharing;
- the interaction between organisational culture and white professional nurses;
- the interaction between working in ICU/Casualties and 50 years and older;
- the interaction between married/co-habitating and no dependents above 18;
- the interaction between 50 years and older and no dependents under 18; and
- the interaction between working in ICU/Casualties and in possession of a degree.

The above variables explained 49% of the variance in turnover intentions.
This is an important finding, since no previous research exist that entered organisational culture, knowledge sharing, organisational commitment, OCB’s, job satisfaction and various demographic variables simultaneously into an equation to determine an empirical model of turnover intentions. Of particular significance is that 49% of the variance was explained by the variables under investigation.

5.6 Conclusion

To conclude the discussion and interpretation of this chapter, the following literature and empirical objectives were achieved.

- Literature Objectives

A theoretical predictive model of turnover intentions was developed to address the primary literature objective of this study. A theoretical overview of all the variables in the proposed model was presented and discussed.

- Empirical Objectives

The results of the study were used to refine the above theoretical predictive model of turnover intentions and this resulted in a final empirical predictive model.

In the next chapter, chapter 6, a brief summary of the research, recommendations and limitations of the study will be provided.
CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

6.1 Introduction

The focus of the previous chapter was on how the objectives of the study, both theoretical and empirical, were achieved. The findings were discussed and interpreted. The focus of this chapter is to provide a short summary of the broad research process with the emphasis on the most important conclusions and recommendations. The limitations of the study, recommendations for further study, value of the study and the final conclusion will be provided.

6.2 Overview of the Chapters

Chapter 1 presented a broad overview of the study. More specifically, the following areas were outlined: background of the problem, motivation and rationale for the study, problem statement, introducing a predictive model, the primary research question and an outline of the remaining chapters.

Chapter 2 presented the literature overview of the study. The key concepts were defined, followed by a theoretical overview of each. An integrative model of the dimensions of organisational culture in relation to knowledge sharing, organisational commitment, organisational citizenship behaviour, job satisfaction and turnover intentions was provided. A summary of the current status of research regarding the relationships between the key concepts, as a primary focus of this study, was provided. The limitations of previous research were outlined and the theoretical contribution of the literature overview. The chapter was concluded with the empirical research objectives as a result of the literature overview.

Chapter 3 dealt with the research design of the study in an attempt to answer the primary research question of the study as stated in Chapter 1. The following areas were
outlined: research approach and research methodology (referring to participants/location of data, measuring instruments, research procedure and statistical analysis).

In chapter 4 the results of the study were provided. Firstly, the results of the descriptive statistics were reflected. Secondly, the results of the measures of sampling adequacy and Bartlett’s Test of Sphericity were provided. Thirdly, the results of the measures of factor analysis, carried out at two levels, were reflected, as well as the results of the item analysis. Fourthly, the Kolmogorov-Smirnov test for normality, coefficients of association and intercorrelations between variables were presented. Fifthly, the results of the analysis of variance and covariance with multi factors were reflected, followed by the results of Baron and Kenny’s (1986) procedure on a tri-variate level to test for mediation. Through a process of model modification by using General Linear Modelling (GLM) a final predictive model was presented.

The focus of chapter 5 was on how the objectives of the study, both theoretical and empirical, were achieved. The findings of the study were discussed and interpreted. The emphasis was on how the results of this study related to previous findings.

Next, the theoretical, empirical and methodological conclusions of the study are outlined.

6.3 Conclusions

6.3.1 Theoretical Conclusions

(1) Contradictory definitions exist for the concept of organisational culture. Organisational culture remains a contested area of academic inquiry within the broader field of organisational studies. It is characterised by competing definitions, epistemologies and research paradigms. Van der Post et al. (1997) have made a significant contribution in approaching the study of organisational culture by identifying certain dimensions that shape behaviour and eventually can be regarded as the culture of the organisation.
(2) The concept of knowledge sharing lacks a sound theoretical definition, as much of the research is based on assumptions and has not been conducted in a social setting. It also seems that a single definition of knowledge sharing is elusive.

(3) The relevant literature regarding organisational commitment included a large number of explanatory and descriptive concepts. As a result, research in the commitment field is characterised by concept redundancy and concept contamination. A motivational model proposed by Roodt (2004a), contributed in clarifying the concept, seeing organisational commitment as an individual's cognitive predisposition of the potential to satisfy salient needs in the workplace. The model clearly distinguishes between the antecedents, the consequences of commitment and the state of commitment itself. It also highlights the influences of instrumental perceptions (expectancy) and emotions and also distinguishes resulting (consequential) behaviours on the alienation – commitment continuum.

(4) Most of the research on OCB’s has been focused on identifying predictors of concepts. The same concept has been given different labels by different researchers resulting in different conceptual connotations (Podsakoff et al., 2000). The literature reviewed in this study indicated that concept redundancy (related variables overlap in meaning) and concept contamination (large proportion of shared or common content), as is the case of organisational commitment, also prevails within the concept of organisational citizenship behaviour.

(5) The concept of job satisfaction is theoretically well defined and a common understanding prevails in the literature, based on sound theoretical models (e.g. Maslow, 1943; Herzberg & Mausner, 1957).

(6) Consensus exists regarding the theoretical development of turnover intentions. An overview indicated different types of turnover cognitions in a sequential process (e.g. thinking of quitting – intention to search – intention to quit –
turnover), but emphasises the importance of structural factors (work attitudes) and the number of job opportunities to facilitate turnover cognitions.

(7) The main focus of the theoretical review was to determine the relationships between the key concepts. There seems to be a lack in previous findings regarding the relationship between organisational culture and turnover intentions, although the importance thereof is noted. There is also a lack of evidence regarding the relationship between organisational culture and the mediating variables of knowledge sharing and job satisfaction. The same applies to the relationship between organisational culture and the mediating variables of organisational commitment and job satisfaction, but to a lesser extent as some evidence is available. No evidence is available regarding the relationship between knowledge sharing and OCB’s as mediating variables and turnover intentions. Overwhelming evidence indicates that organisational commitment and job satisfaction predict lower turnover intentions.

(8) Lastly, there seems to be a lack of empirical evidence on turnover models in South African hospitals. The concepts of organisational culture, knowledge sharing, organisational commitment, OCB’s, job satisfaction and turnover intentions did not receive much attention in the theoretical literature. It seems, however, that job satisfaction of nurses in South Africa, and the possible consequences such as turnover intentions, is a popular feature in newspaper articles and magazines alike.

Next, the empirical conclusions will be outlined.

6.3.2 Empirical Conclusions

(1) It is not surprising that white professional nurses’, with Afrikaans as home language working in private hospitals perception of organisational culture differs significantly from African professional nurses with an African home language
working in public hospitals, as these coefficients of association indicated large effects sizes in this specific subgroups. The descriptive statistics clearly indicated that private hospitals employ more white professional nurses with Afrikaans as home language and vice versa. One should also keep in mind that some of the public hospitals were situated in rural areas and therefore showed a resemblance of the demographics of that region. It is, however, unexpected that professional nurses with higher seniority levels perceived the organisational culture less positively than their subordinates. One should think that they are the decision makers in the hospitals and should therefore be influential in determining the dimensions of organisational culture as proposed in this study. One can argue that professional nurses with more completed years in their profession are more profession orientated and therefore perceive the organisational culture more positively. This result is not unexpected. Professional nurses with more number of dependents (below and above 18) perceive the organisational culture less positively. This may be due to more financial obligations and more work-life balance pressure. Such employees may feel that their employer in not providing sufficiently.

(2) Since a significant negative relationship between organisational culture and turnover intentions was found, it is not surprising that the same pattern of results were found as has been the case between the demographic variables and organisational culture. The results clearly indicated that white professional nurses in private hospitals, Afrikaans as home language, more than 20 completed years in the profession turnover intentions’ were lower than the other categories. Another interesting result is that chief professional nurses/unit managers’ turnover intentions were higher than their lower seniority counterparts. Maybe they are better qualified and more job opportunities exist for them, or they feel that have satisfied their needs in their current setting and want to pursue new challenges. Professional nurses with fewer dependents are less inclined to turnover intentions. They probably feel they have less financial obligations (therefore feel more satisfied with the compensation they receive) and experience
less work-life balance stress due to less commitments at home. Lastly, professional nurses with longer tenure in the hospital are more inclined to turnover intentions. This can probably be explained as a result of the fulfillment of work goals in a specific organisation.

(3) A significant result of this study is the non-mediating effect of knowledge sharing, organisational commitment and job satisfaction, although only partially (slightly), between organisational culture and turnover intentions which clearly indicated the importance of these concepts in organisations. The importance of organisational commitment as the only independent predictor of turnover intentions, clearly shows organisational commitment is an important predictor of turnover intentions and ultimately turnover.

(4) It is clear that the independent variable, selected potential mediating variables and demographic variables contributed significantly in predicting turnover intentions (49% of the variance). It seems that organisational culture contributes significantly in explaining turnover intentions, emerging with knowledge sharing, OCB's and job satisfaction as predictors. Organisational commitment emerged as the most important predictor of turnover intentions.

(5) Another interesting result is that professional nurses in ICU/Casualties turnover intentions are lower, specifically if they are in a possession of a degree or 50 years and older. These nurses are generally, but not necessarily, better qualified than other nursing unit groups and are sought-after by other employers. It is surprising in a sense that being better qualified in the nursing profession, with many job opportunities available, puts one in a better position to search for alternative jobs. The same argument is valid in the sense that older professional nurses will in most cases have more experience.

(6) A surprising result is that the interaction between organisational culture and organisational citizenship behaviour are related to increasing turnover intentions.
A possible explanation might be that professional nurses feel that being involved in OCB’s increases their workload, and that this in turn leads to more work pressure and higher turnover intentions. This may especially be true if they perceive that teamwork is lacking or their efforts are not compensated for. As stated, although work responsibilities and OCB’s are conceptually or theoretically distinct, this distinction may not prevail in practice. One should also keep in mind that the nursing profession entails helping behavior as logical task characteristic of the profession, and may therefore often not realise that they are involved in citizenship behaviour. One also may speculate that self ratings on OCB’s might have influenced this result in the sense that performance was evaluated and not OCB’s.

(7) Professional nurses with less number of years in a unit (1-5) are also more inclined to turnover intentions than those with more completed years in a specific unit. This may be due to uncertainty of new recruits in which unit they want to specialise in, resulting in “cultural shocks” and higher turnover intentions.

Next, the methodological conclusions will be outlined.

6.3.3 Methodological Conclusions

(1) The research approach could be described as a cross-sectional field survey and data analysis as ex-post facto and correlational. This approach enabled the researcher to test hypotheses and analyse variables to propose a theoretical model, as well as ultimately answering the primary research question as stated in Chapter 1.

(2) The target population (as first step in the research methodology of the study) was specified as professional nurses working in the Free State, Northern Cape and North West Provinces of South African hospitals. This enabled the researcher to identify different hospitals, different types of hospitals (private and provincial) and
hospitals in different surroundings (urban and rural) which probably had different organisational cultures. This resulted in a sample with diverse characteristics which might have effected the variance of the variables.

(3) The decision to make use of non-probability samples at the various hospitals could be regarded as unavoidable due to practical and ethical reasons. This was due to the difficulty to obtain permission to do the research from employers, the severe shortages of professional nurses at hospitals, reluctance to allow time off for professional nurses to complete the questionnaires, and the complex shift systems that determine working hours for professional nurses. Nevertheless, the sampling procedure was conducted as inclusive as possible.

(4) The research procedure to personally visit hospitals to ensure a high response rate to the questionnaires, although not without problems such as the availability of respondents, yielded the desired results.

(5) Six questionnaires were administrated in this study. The questionnaires were selected as operational definitions of each concept. The Organisational Culture Survey (Van der Post et al., 1997); Organisational Commitment Questionnaire (Roodt, 1997); Organisational Citizenship Behaviours Questionnaire (helping - Van Dyne & LePine, 1998; Voice - Van Dyne et al., 1994); and Minnesota Satisfaction Questionnaire (MSQ20) (Weiss et al., 1967) were selected from previous research. The Knowledge Sharing Questionnaire was constructed by the author and the Turnover Intentions Questionnaire was an unpublished questionnaire developed by Roodt (2004b). All these questionnaires were factor analysed (method of Schepers, 1992; 2004) to determine construct validity and an iterative item analysis yielded high reliability coefficients (Cronbach Alphas). In conclusion it can be argued that the questionnaires are best suitable to test the hypotheses.
(6) The fact that all instruments were self-completion questionnaires, could have enhanced the obtained intercorrelations based on mono-method variance. The results should therefore interpreted with caution.

(7) After compilation of the different questionnaires, the final measuring instrument consisted of too many items. Some respondents took nearly an hour to complete the questionnaire. This might not have been a problem in other sectors of the economy, but as explained the severe work pressure of professional nurses complicated sufficient response rates. One can possibly argue that in some cases the news spread that the questionnaire is lengthy and time consuming, even if some have completed it in less than 25 minutes.

(8) Both bivariate and multivariate statistical techniques were used to test hypotheses and ultimately develop a most parsimonious model for turnover intentions through General Linear Modelling. It can be argued that this statistical approach was not only applicable to answer the research question, but provided informative and illuminative results.

Next, the recommendations of the study will be provided.

6.4 **Recommendations**

6.4.1 **Theoretical Recommendations**

(1) Organisational culture is a complex concept and simplistic models to explain organisational behaviour and effectiveness will not improve the understanding thereof. Erwee et al. (2001) suggestion for a more complex model of organisation culture, constructed from different systems or subsystems, which interact on different levels, is supported. It is recommended that the positivist approach to study organisational culture from different dimensions adapted by Van der Post et al. (1997) should be seriously re-considered.
(2) The view of Roodt (2004a) is supported that the motivational approach to study organisational commitment provides a sound theoretical foundation for operationalising commitment as a cognitive predisposition to work to any particular focus. Although there is empirical evidence of some of the elements in this model, it needs to be empirically tested as a whole.

(3) The need exists for a shared definition of the concept of knowledge sharing in a social context (human behavioural approach). A theoretical model, with antecedents, manifestations and consequences of knowledge sharing to illuminate the concept of knowledge sharing behaviour, should receive attention.

(4) Behavioural dimensions of OCB’s seem to be conceptually distinct [e.g. one can be very helpful (helping behaviour), but hesitant to become involved in decisions affecting the organisation (civic virtue)]. Therefore, it might be necessary to pay more attention to construct validity of concepts and developing a model, similar to the motivational model of the concept of organisational commitment, to understand and explain organisational citizenship behaviour and thereby reduce concept redundancy and concept contamination.

(5) The relationships between the key concepts of this study, excluding organisational commitment and job satisfaction with turnover intentions, should receive more attention.

Next, a few methodological recommendations as a result of this study, are outlined.

6.4.2 Methodological Recommendations

(1) As was reported, several problems were experienced with the sampling method, resulting in using a convenience sample at the selected hospitals. Due to the severe work pressure, reluctance of employers, the complex shift system and
reluctance of professional nurses to become involved in additional work related activities in some hospitals, it is recommended to involve large populations to enable random samples.

(2) It is highly recommended for future research that respondents are personally approached in the hospitals and related medical sectors to obtain a sufficient response rate. This is mainly due to severe work pressure and the perception that the completion of questionnaires is regarded as an additional administrative burden by some. By personally explaining the purpose of the questionnaire and ensuring confidentiality, co-operation can be enhanced.

(3) The questionnaires used in this study seem to be based on sound psychometric principles, but further development and testing of specifically the knowledge sharing questionnaire is recommended.

(4) Serious consideration should be given, if practically possible, to imply supervisory and peer ratings together with self ratings, when OCB’s are measured. This will enhance validity of ratings.

(5) It is highly recommended to use General Linear Modelling if applicable. Some of the reasons are that a General Linear Model goes a step beyond the multivariate regression model by allowing for linear transformations of multiple dependent variables. Independent variables can be continuous or categorical. General Linear Modelling is also useful in compiling predictive models and to develop theories.

Next, the value of this study will be outlined.
6.5  **Value of this Study**

6.5.1  **Theoretical**

- An overview of the theoretical development of organisational culture, knowledge sharing, organisational commitment, organisational citizenship behaviours, job satisfaction and turnover intentions were provided.

- An integrative model of turnover intentions was developed, which includes a wide spectrum of predictors on a multivariate level (independent, moderating, mediating and demographic variables).

- In developing this model the independent, moderating, mediating and demographic variables were simultaneously entered into a statistical equation. This approach went beyond a bivariate analysis by using a multivariate statistical approach. As far as could be determined, this was the first time that such an approach was used to determine turnover intentions of professional nurses in South African hospitals.

- The model's components, within the integrative model, were important to understand professional nurses' turnover intentions. An understanding of these relationships within the context of the expanded model offered insight into the ways in which organisational culture, knowledge sharing, organisational commitment, organisational citizenship behaviours and job satisfaction influence turnover intentions, and ultimately turnover, of professional nurses working in hospitals.

- Since much debate exists regarding the concepts of organisational culture and organisational commitment, a contribution was made to explain the importance of these as useful and rightful concepts in social exchange relationships in human behaviour.
• A significant contribution was made to develop knowledge sharing as empirical construct. An attempt was made to develop a theoretical framework for the concept of knowledge sharing, including pre-requisites, methods to share, categories of knowledge and outcomes.

• Organisational culture, knowledge sharing and organisational citizenship as antecedents of turnover intentions, were not theoretically reported in South African literature before.

• An integrative theoretical perspective, as well as previous research findings, on the relationships between organisational culture (with the focus on the operational dimensions), knowledge sharing, organisational commitment, organisational citizenship behaviours, job satisfaction and turnover intentions were provided.

6.5.2 Methodological

• The knowledge sharing questionnaire was developed based on theoretical evidence. As far as could be determined, it is only the second instrument of such a nature to measure knowledge sharing in a social context.

• A major contribution was the Turnover Intentions Questionnaire developed by Roodt (2004b) that was applied for the first time. This questionnaire deviates significantly from previous instruments measuring turnover intentions. Most instruments in the literature measure turnover intentions on only a relatively small number of items (normally three items) and most often on only one item. The small number of items makes it impossible to determine construct validity. Roodt’s 14 – item Turnover Intentions Questionnaire yielded a Cronbach Alpha of 0.913 and high construct validity as a second level factor analysis explained 85% variance in the factor space.
The most significant methodological contribution was the use of the General Linear Model for the statistical analysis. This approach made it possible to enter various kinds of variables simultaneously into an equation to determine turnover intentions of professional nurses.

6.5.3 Practical

Surprisingly organisational culture had not previously being viewed as an important antecedent of organisational outcomes in South African hospitals and in the nursing profession alike. This study contributed to a greater understanding of the importance of organisational culture in hospitals and amongst professional nurses. Organisational culture as an important predictor of turnover intentions can also be managed.

The predictive model developed for turnover intentions can be regarded as an important tool for health and nursing administrators to plan talent retention strategies.

Since this model focused primarily on internal components, possible strategies can be derived from this model to prevent turnover intentions. The practical value of this model is that it focused on controllable dimensions of organisational culture, therefore employers can plan interventions specifically, even if some results can only be achieved in the long term.

Since the importance of knowledge sharing was evident in the results obtained from this study, the responsibility of managers and human resource departments to create opportunities for learning and sharing, such as training - and development interventions to meet growth and development needs, are extremely important.

Ultimately, it is believed that a contribution was made to understand and possibly reduce the high turnover of professional nurses in South Africa.
6.6 **Limitations of this Study**

6.6.1 Since the study was correlational in nature, the focus was on the relationships between variables. Some of the concepts, especially knowledge sharing, is not theoretically well described in the literature or empirically tested, thus made it difficult to describe its relationship with the other concepts in the study.

6.6.2 Professional nurses working in other sectors of the economy were excluded in this study.

6.6.3 The sampling method applied in this study was unavoidable, but limited in scientific terms.

6.6.4 The turnover model developed in this study only focused on internal dimensions and excluded external forces such as job opportunities, which theoretically were described as important in turnover cognitions.

6.6.5 Since the behavioural dimensions of OCB’s seem to be conceptually distinct, a limitation of this study was to treat OCB’s (helping and voice) as one construct (factor analysed as one construct). This is one of the major concerns of scholars in this field. The study did not contribute in distinguishing between OCB’s empirically (one factor was determined after the factor analysis, although theoretically the distinction was made).

6.6.6 Due to the complexity in the sampling design, self ratings were imposed where supervisory of peer ratings could also have served an important purpose.

6.7 **Suggestions for Further Study**

6.7.1 Knowledge sharing as theoretical and empirical concept needs further development and investigation.
6.7.2 The prerequisites (conditions) of knowledge sharing should receive more attention. One possible line of thinking is to create experimental designs to measure direct cause-effect relationships of sharing behaviour and thereby control nuisance variables.

6.7.3 A need exists to develop a model of Organisational Citizenship Behavior to reduce concept redundancy and concept contamination, including antecedent, manifestations and consequential matters. This model must be empirically tested as a whole.

6.7.4 Taking the consequences of the high turnover amongst nurses in consideration, more turnover models should be developed with different concepts entered into the equation. The nursing population outside hospitals can also be involved in developing these models.

6.7.5 The turnover model proposed in this study could be empirically tested in other health related sectors such as physicians, dentists, psychologists, medical rescue personnel, emergency services and laboratory technologists.

6.8 **Final Conclusion – Answering the Research Problem**

In conclusion it is clear that organisational culture, in interaction with the moderating variables of knowledge sharing, job satisfaction and OCB’s, as well as organisational commitment as independent predictor and various demographic variables, interactively predict turnover intentions. This answers the research question, namely that retention strategies of professional nurses can be built around the fulfillment of their higher order needs and around improving various conditions in their workplace.