

Work satisfaction of professional nurses in South Africa.

A comparative analysis of the public and private sectors

Research Paper

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ABSTRACT

Background: Work satisfaction of nurses is important as there is sufficient empirical evidence to show that it has the propensity to impact on individual, organizational and greater health and social outcomes. Although there have been several studies of job satisfaction among nurses in South Africa, these are limited as they relate to studies of individual organizations or regions, use small samples or are dated. This paper presents a national study that compares and contrasts satisfaction levels of nurses in both public and private sectors.

Methods: This was a cross sectional survey of professional nurses conducted throughout South Africa using a pre-tested and self administered questionnaire. Univariate and bivariate statistical models were used to evaluate levels of satisfaction with various facets of work and to illicit the differences in satisfaction levels between different groups of nurses. A total of 569 professional nurses participated in the study.

Results: Private sector nurses were generally satisfied while public sector nurses were generally dissatisfied. Public sector nurses were most dissatisfied with their pay, the work load and the resources available to them. They were only satisfied with the social context of the work. Private sector nurses were only dissatisfied with their pay and career development opportunities. Professional nurses in the more rural provinces, those intending to change sectors and those more likely not to be in their current positions within the next five years were also more likely to be dissatisfied with all facets of their work.

Conclusion: This study highlighted the overall dissatisfaction among South African nurses and confirmed the disparity between the levels of job satisfaction between the public and private sectors. Health managers should address those factors that affect job satisfaction and therefore retention of nurses in South Africa. Improving the work environment so that it provides a context that is congruent with the aspirations and values systems of nurses is more likely to increase the satisfaction of nurses and consequently impact positively on individual, organisational and health outcomes.

Keywords: Work satisfaction, professional nurses, South Africa, public sector, private sector

South Africa has a dual health system. The public sector comprising government health institutions serves predominantly the indigent population, while the private sector comprising for profit organizations and individuals serves the insured population or those who can afford care on an out-of pocket basis. Although the public sector is responsible for the well being of 82% of the population it accounts for only 40% of the total health expenditure in South Africa. In contrast, the private sector consumes 60% of the health spend and is only responsible for less than twenty percent of the population (1). The public sector, which is under-resourced and over-used, is often characterized as being inefficient and ineffective in terms of meeting its mandate of accessible, affordable and appropriate health care. The private sector, on the other hand, is reputed for its world class facilities and care provision.

Given the pivotal role that nurses play in determining the efficiency, effectiveness and sustainability of health care systems, it is important to understand what motivates them and to what extent the organisation and other contextual variables satisfies them. Job dissatisfaction has been frequently cited as the primary reason for a high turnover of nurses (2; 3; 4; 5), as well increased rates of absenteeism (6), both of which impede efficiency and effectiveness, which in turn pose a threat to healthcare organization's capacity to provide quality care as well as meet the needs of patients (7; 8). This may result in a decrease in morale and productivity of the remaining nurses due to the increasing pressure on them (9) which, in turn has the potential to contribute to further work dissatisfaction and a further increase nurse turnover (10). In addition, work satisfaction was found to be an important predictor of where health professionals intended to work (11; 12).

Work satisfaction is also an essential part of ensuring high quality care. Dissatisfied providers not only give poor quality, less efficient care (13), there is also evidence of a positive correlation between professional satisfaction and patient satisfaction and outcomes (3; 14; 15; 16). Nurses who were not satisfied at work were also found to distance themselves from their patients and their nursing chores resulting in suboptimal quality of care (17). Baxter (18) further highlighted the strong influence of nurse job satisfaction on the quality of care they provided as well as on the nurse-patient relationship (19).

There is also compelling evidence that there is a positive relationship between job satisfaction and employee health. Blegen et al. (20) demonstrated a strong negative association between work satisfaction and stress while Grieshaber et al (21) showed that dissatisfaction led to increased stress and frustration which resulted in physical, emotional and behavioral problems. This has been found to be an important contributor to sub-optimal performance of nurses (22) as well as the abandonment of the profession (23).

These studies show that the work satisfaction of nurses is important as it has the propensity to impact on individual, organisational and greater health and social outcomes. Many stakeholders can therefore potentially benefit from an accurate and comprehensive measurement of this phenomenon, and it is for this reason that this area has been extensively studied. Job satisfaction has primarily been defined by two approaches, a global approach which encompasses overall attitudes, feelings and emotions towards their work experience (24; 25), and a faceted approach which

emphasizes employees' attitudes towards individual aspects of their job (26; 25), which is more useful at determining specific areas for improvement (27).

Although international research varies in its specific findings, the general conclusions seem to support a sentiment of growing dissatisfaction experienced by nurses around the world (28; 29; 30; 31; 32). Key dissatisfactors were found to include non supportive work environments (33), and increased workloads (34; 35), while important predictors of nurse work satisfaction included autonomy (36; 37), work content (38) professional development and recognition (39), and relationships with co-workers and peers (40). Although the literature on the subject demonstrates areas of commonality, it also highlights significant differences between different labour markets (26).

In South Africa nurses were also found to be generally dissatisfied (41; 42), with remuneration being a key contributor to dissatisfaction (43; 44; 45; 42). Poor working conditions and organisational climate were also strong predictors of dissatisfaction (43; 46), while the social context of the job was found to be a strong predictor of satisfaction (43; 45; 47). The South African studies are, however, limited in the sense that they relate to studies in individual organisations (43), are done at regional level (46; 45), used small samples (46), or had data collected prior to the socio-political transition and health system transformation (41; 42). There have been no recent studies that study this phenomenon nationally and none have compared and contrasted work satisfaction levels of nurses in the different sectors. This paper is an attempt to address this gap in the literature.

Methodology

Data for this study come from a survey of professional nurses throughout South Africa which formed part of a broader study of attraction, work satisfaction and retention issues. Based on a population of 99 534 professional nurses registered with the South African Nurses Council, the minimum sample size was calculated at 367, at a 95% level of certainty and allowing for a margin of error of 5%. Based on a response rate of around 40% for similar studies (11), a computer generated simple random sample of 1000 professional nurses was selected. A self administered questionnaire that had been specially developed and pre-tested, was posted to nurses in September 2006 and non-responders were sent questionnaires up to two more times at intervals of four weeks. Data collection was terminated six weeks after the final mailing. The results of a sample of primary non-responders (non respondents to the first mailing attempt) were compared to that of the primary responders (respondents to the first mailing attempt) to assess non-response bias (48).

The objective of this study was to determine the extent of work satisfaction among nurses and to examine variables influencing thirteen different aspects of job satisfaction. Scales combining multiple items were used to measure satisfaction with autonomy, relationship with nursing colleagues, patient care, relationship with doctors, personal time, relationship with management, career opportunities, safety, the community, pay, resources, workload, and satisfaction with their careers. Some of the items and scales were developed by the researcher, while others were adapted from the literature (49; 50; 51; 27; 3). Factor analysis using principal components analysis was used to evaluate the construct validity of the satisfaction subscales and the

Kaisers Eigenvalue rule was used to determine the factors to be extracted from the 58 satisfaction items. Satisfaction was measured using a five-item Likert scale ranging from 1 (very dissatisfied) to 5 (very satisfied). The reliability of the factors was estimated by assessing the internal consistency of the scales using Cronbachs alpha. The ultimate score that each nurse received for each factor was based on the simple summation of the item scores for that measure. Mean factor scores at the lower end of the score range denote lower satisfaction with a particular facet while higher scores denote satisfaction.

The independent variables in the study were the respondent's personal characteristics, work experience and future work plans. One way analysis of variance (ANOVA) was used to test the statistical significance of the differences in work satisfaction between nurses in the public and private sectors and other categorical variables while the and chi squared test was used to test the statistical significance of the association between categorical variables.

Results

After the primary and two follow up surveys, questionnaires were returned from 569 of 907 valid addresses of professional nurses. This represents a total response rate of 62.7%. There were no significant differences between primary respondents (297) and the sample of primary non-respondents in terms of demographics, future work plans and satisfaction levels.

Insert Table 1

As shown in Table 1, most respondents were female (94.1%), above the age of 40 (73.1%) and had more than twenty years experience (60.4%). The majority of the respondents were from Gauteng (26.8%), Kwa-Zulu Natal (20.8%) and the Western Cape (16%) while the Northern Cape (2%) North West (4.3%) and Mpumalanga (4.8%) had the fewest respondents.

Approximately 40% of respondents worked in the private sector while 60% worked in the public sector. 34.8 % of respondents indicated an intention to change their sector of employment within the next five years while only 30.2% reported that they would most likely still be in their current positions as professional nurses in five years time.

Factor analysis yielded the same 13 facets which captured 76% of the variance in nurses' responses to the satisfaction items. Cronbachs alpha- a measure of internal consistency- was well within acceptable range for all scales ($\alpha > 0.70$).

Insert Table 2

Overall, professional nurses in South Africa were marginally dissatisfied (mean 2.935). They did, however, express greatest satisfaction in their relationship with, and the gratification they obtained from patient care (3.734), their relationship with their nursing colleagues (3,582), doctors (3.391) and their sense of belonging in the communities within which they work (3.368). They were most dissatisfied with their pay (2.020), the work load (2.244), their career development opportunities (2.595) and the resources available to them (2.727).

Private sector nurses were generally satisfied (3.321). They expressed greatest satisfaction with the gratification they obtained from patient care (3.984), their relationship with their nursing colleagues (3.697), their sense of belonging in the

communities within which they work (3.598), safety in the work environment (3.570) and their relationship with doctors. They were only dissatisfied with their pay (2.397) and career development opportunities (2.987).

Public sector nurses were generally dissatisfied (2.693). They did however express satisfaction with the gratification they obtained from patient care (3.571), their relationship with their nursing colleagues (3.514) and doctors (3.317) and their sense of belonging in the communities within which they work (3.226). They were most dissatisfied with their pay (1.787) and workload (1.940) followed by the resources available to them (2.306) career development opportunities (2.337) and safety of the work environment (2.351).

Analysis of variance showed significant differences between the satisfaction levels of nurses with different bio-demographic characteristics, from different provinces, with different levels of experience, in the different sectors, as well as those who intended to change sectors or had other work plans within the next five years. (See table 3, below)

Insert table 3

Female nurses were generally more satisfied with resources than their male colleagues ($F=3.85$, $p<0.05$) while nurses above the age of forty were significantly more satisfied than their younger colleagues with their relationships with management ($F=2.831$, $p<0.05$) and with doctors ($F=4.611$, $p<0.01$). Nurses with more than twenty years experience were also significantly more satisfied than their less experienced colleagues with most of the facets of their work.

Nurses in the Western Cape, Free State, Kwa-Zulu Natal and Gauteng were significantly more satisfied than their colleagues from other provinces with most of

the facets of their work except for their relationships with the community, where nurses in Limpopo and North West were more satisfied.

Nurses in the private sector were also significantly more satisfied with all facets of their work than their colleagues in the public sector. The greatest difference in satisfaction levels were with regards to safety, resources available, workload, their careers and their relationship with management, respectively

Nurses who intended to change their sector of employment were significantly less satisfied in all of the work facets than those who indicated that they would not be changing their sector of employment. Nurses who intended to remain active in the profession for the next five years were also significantly more likely to report being satisfied with all of the facets of their work, as opposed to those whose work plans included either quitting the profession, working abroad or pursuing further training in nursing.

Discussion

Given that it is difficult to achieve desirable response rates in surveys of health professionals, the relatively high response rate of above 60% suggests that the iterative process is appropriate in this context. It may also indicate high interest among nurses in the subject area. The similarity in response rates between respondents and a sample of primary responders suggests that non-response bias was minimal and the sample was therefore representative of all professional nurses in South Africa.

Results from the survey demonstrate that although nurses are generally dissatisfied, it masks discrepancies between levels of satisfaction with different aspects of their work, between nurses with different bio-demographic characteristics, between nurses in the different sectors and from different geographic regions, and between nurses with different future work plans.

The overall dissatisfaction among the cohort surveyed is disconcerting given that work satisfaction is positively correlated to increased absenteeism (6) and turnover (2; 3; 4; 5), nurse morale and health (21; 20), productivity (9) and clinical outcomes (3; 14; 15; 16). This, in turn, has implications for the efficiency, effectiveness and sustainability of our health care system.

Overall, nurses in the public sector were generally dissatisfied while nurses in the private sector were satisfied. This contradicts the general management literature which suggests that public sector satisfaction has improved relative to the private sector over the last decades (52). It does however support the nursing management literature which demonstrates significant dissatisfaction among public sector nurses relative to their private sector colleagues (53), suggesting that the work milieu in the public sector does not meet the aspirations and values systems of nurses.

Public sector nurses were most dissatisfied with their pay, workload and the resources available to them while private sector nurses were moderately dissatisfied with pay and workload and marginally dissatisfied with their career opportunities. Although both sectors have identified pay and workload as being an important source of dissatisfaction, private sector nurses are relatively more satisfied with these factors

than their public sector counterparts. The question then arises as to why private sector nurses are significantly more satisfied than their public sector colleagues? The data suggests that nurses in both sectors were satisfied with the social context of their work (relationships with colleagues, doctors, and communities) and the intrinsic satisfaction they receive from patient care. In other words they are happy with the work they do and the people with whom they work! This is positive given that optimal health provision is dependant on teamwork and inter-professional co-operation and communication.

The differences in satisfaction are related to the work context – safety, resources, workload and work schedule, management, pay and autonomy. The biggest difference in satisfaction levels was in the perceived levels of safety in the workplace- personal, risk of infection, risk of injury and the physical work environment. Public sector nurses were extremely dissatisfied while private sector nurses were satisfied. The emergence of deadly diseases like extreme drug resistant tuberculosis (XDR TB) and HIV/AIDS, in the wake of the already burdened public health care system, contributes to the weakening of the safety of the nursing work environment. In addition, patients with these illnesses generally require more specialized care and longer term treatment than other patients, further increasing the workload. Andrews & Dziegielewski (54) in their study on nurses in the U.S also highlighted nursing as a hazardous occupation with job-related injury and illnesses among nurses being among the highest in the workforce. There is also sufficient anecdotal evidence to suggest that nurses are also frequently victims of bullying from managers and more senior colleagues and physical violence or threats of violence, often from patients or relative. Nurses are therefore being restricted from working to their full potential and providing total

commitment as a result of their constrained environment. Total commitment of knowledge workers according to Davenport (55) is dependent upon providing an environment which encourages adequate utilisation of their abilities. The availability of protective materials and functional equipment to safeguard nurses from unnecessary accidents as well the implementation of structures and processes to help nurses improve their personal safety skills and provide support for victims of workplace violence (56) will help to contribute to a safer environment for nurses in the public healthcare setting.

The difference in satisfaction levels with resources available – working equipment, medication, examination facilities, time and staff- is also stark with nurses working in private healthcare afforded the ideal opportunity to improve the healthcare status of patients in an optimal setting with adequate resources and time. This translates into more efficient, effective healthcare in a more comfortable environment which ensures that the patients become the priority and patient needs and care are met.

The issue of nurse remuneration, especially in the public sector has been an enduring one (45; 47; 42; 41). This may partly explain the move of so many public sector nurses to the private sector. Higher salaries offered by overseas hospitals are also proving to be an ideal pull factor. However, it is hoped that the Occupation Specific Dispensation which significantly improved the salaries of public sector nurses and which was implemented in January 2008 and back dated to June 2007, will address this issue to some extent. Health administrators will also do well to link portions of remuneration to performance objectives such as quality of care, resource conservation

and patient centric care, as well as consider non financial (eg career development opportunities) and psychological rewards(eg. gratitude and recognition) (57).

An increased workload for nurses - resulting from the severe shortage of nurses as well as an increase in demand for care - has been associated with burnout and intention to leave (23). Excessive workload has been shown to significantly contribute to public and private sector nurse's dissatisfaction in South Africa. Tzeng (3) was able to demonstrate in her study among Taiwanese nurses that workload was a predictor of nurse turnover. This results in increased workload for the remaining nurses which in turn decreases morale and productivity of those that remain, further increasing turnover (9). The implications of these findings are therefore alarming for the provision of healthcare in South Africa now and in the future, given that we are already facing challenges with regard to nurse retention. In addition, the long, irregular and inflexible working hours has the potential to impact adversely on family dynamics. Consideration should be given to improving scheduling, providing day care for children and more part time employment, all of which are bound to impact positively on the personal lives of nurses as well.

The general dissatisfaction of public sector nurses with their careers and the career opportunities available to them is a further measure of demoralization of nurses and offers some substantiation of the disaffection associated with working in the public sector. The decreasing attractiveness of nursing as a career is of great concern given that nurse play a central role in the government's primary health care approach. Attraction, retention and motivation difficulties may in the long run offset the gains of attempts to improve efficiency within the health delivery system. Although marginal,

private sector nurses were also dissatisfied with career opportunities available to them as nurses in South Africa. Although this finding is not supported by Barrows & Wesson (54), who found private sector employees significantly more satisfied with their career opportunities than their public sector counterparts, this may partly explain why private sector nurses leave the profession or the country. Career opportunities and training afford individuals the prospect of further developing themselves and growing within the ranks of their career. It also acknowledges experience and time dedicated to nursing which provides much needed recognition in the field of nursing. These findings are in line with the suggestion by Horwitz et al. (58) who proposed that highly effective strategies for motivation and retention of knowledge workers need to be centered on creating a stimulating and challenging environment. Career development was identified by Irvine & Evans (59) as contributing significantly to decreased job turnover and it is therefore a crucial management function.

The significant different responses to the satisfaction factors by nurses intending to leave their current employment sector and those not intending to leave are confirmation of the push factors which direct the ultimate movement of nurses out of the public sector into the private sector. Responses to all factors were significantly different and the levels of satisfaction experienced by the nurses who intend on leaving their current sector were significantly lower for all factors than those who intend on staying. These results support the findings of Shields and Ward (8) that work dissatisfaction is a strong predictor of intentions to quit and confirms the findings of Pillay (11) that work satisfaction is an important predictor of where health professionals intended to work. It emphasises the consequences of not adequately retaining nurses by addressing their causes of dissatisfaction which reflect the many

hygiene factors (60). It further highlights the need for government to recognise the needs of nurses and work toward improving them. Failure to do so would inevitably result in the heightening of migration of nurses out of the public sector and the country!

The finding that nurses in the more urbanised provinces (Western Cape, Free State, Kwa-zulu Natal and Gauteng) were significantly more satisfied than their colleagues from the more rural provinces may also partly explain the gravitation of nurses from rural to urban areas. This further supports that assertion of Pillay (11) that work satisfaction is an important predictor of where health professionals intended to work. Health managers in rural provinces should therefore focus on key dissatisfactors if they are to improve retention of nurses in their regions. It was however interesting to note that that nurses in the more rural provinces were significantly more satisfied with their relationships with the communities within which they work. The role that communities can play in the recruitment and retention of nurses therefore offers us a key point of leverage to improve recruitment and retention efforts and definitely warrants more research.

The work experience of a nurse was also a significant variable which resulted in varying responses to the levels of satisfaction among the given factors. Nurses with more than 20 years experience were more satisfied with most of the satisfaction facets than those nurses with less work experience. Years of experience brings with it a sense of security in nursing with few surprises. Relationships with patients and colleagues are built and strengthened over the years which are more difficult to establish when one is less experienced. Experience also has the advantage of

promoting nurses within the ranks and reserving the more menial tasks to the less experienced and younger nurses thereby offering a manageable workload and flexible working hours. These factors are satisfying to nurses and help explain the overall higher levels of satisfaction among the more experienced nurses. This augurs well for the retention of the more experienced nurses with the associated benefits of institutional memory retention and coaching and mentoring of new entrants.

This study had limitations that must be acknowledged. Firstly responders may have been more dissatisfied than non-responders, leading to exaggerated estimates of dissatisfaction. Secondly, the research relied on subjective assessments of respondents to the survey and it was not possible to externally validate these responses.

In conclusion, this study highlighted the overall dissatisfaction among South African nurses and confirmed the disparity between the levels of job satisfaction between the public and private sectors. Nurses are pivotal to the effective and efficient delivery of healthcare in South Africa and the chronic shortages of nurses impose a real threat to its future. It therefore becomes imperative for healthcare managers to identify and address those factors which are the stumbling blocks to job satisfaction and therefore retention of nurses in South Africa. Improving the work environment so that it provides a context that is congruent with the aspirations and values systems of nurses is more likely to increase the satisfaction of nurses and consequently impact positively on individual, organisational and health outcomes.

References

1. Health Systems Trust (2005). *Annual Health Review*:
<http://www.hst.org.za/uploads/files/sahr2006.pdf> accessed on 10/08/06
2. Lambert E.G., Hogan N., Barton S.M. (2001) “The impact of job satisfaction on turnover intent: a test of a structural measurement model using a national sample of workers”. *The Social Science Journal*, vol. 38, no.2, pp: 233-250
3. Tzeng, H.M. (2002). “The influence of nurses’ working motivation and job satisfaction on intention to quit an empirical investigation in Taiwan”. *International Journal of Nursing Studies*. vol. 39, pp: 867–878.
4. Yin, J.T. & Yang, K. A. (2002). “Nursing turnover in Taiwan: a meta-analysis of related factors.” *International Journal of Nursing Studies*, vol. 39, pp: 573-581
5. Larabee, J., Janney, M., Ostrow, C.L., Witbrow, M.L., Hobbs, G.R. & Burant, C. (2003). “Predicting registered nurses job satisfaction and intent to leave.” *Journal of Nursing Administration*, vol. 33, no. 5, pp: 271-283
6. Siu O (2002) “Predictors of job satisfaction and absenteeism in two samples of Hong Kong nurses.” *Journal of Advanced Nursing*, Vol. 40, no.2, pp: 218-229.
7. Tai, T., Barne, S. & Robinsin, C. (1998). “Research of nursing turnover research.” *Social Science and Medicine*, vol. 12, pp: 1905-1924.

8. Shields, M.A. & Ward, M. (2001). "Improving nurse retention in the National Health Service in England: the impact of the job satisfaction on intentions to quit." *Journal of Health Economics*, vol. 20, no. 5, pp: 677-701.
9. Cavanagh, S & Coffin, D. (1992). "Staff turnover among hospital nurses," *Journal of Advanced Nursing*. vol.17, pp: 1369–1376.
10. Borda, G. L. & Norman, I. J (1997). "Factors influencing turnover and absence of nurses a research review." *International Journal of Nursing Studies*, vol. 34, no. 6, pp: 385–394.
11. Pillay, R. (2002). "Effect of organisational structure and managerial practices on the clinical behaviour and job satisfaction of primary healthcare doctors as knowledge workers, in the managed healthcare industry in South Africa." PHD Thesis
12. Department of Health and Community Services (DHCS). (1993) "The realities of rural district nursing: A study of practice issues and educational needs." Lodden Mallee Region Progressive Projects. Canberra: Lampshire and Rolfe.
13. Grol, R., Lawrence, M. (1995) *Quality Improvement by Peer Review*. Oxford University Press, London, pp: 32-48.

14. Leiter, M., Harvie, P. & Frizzell, C., (1998). "The correspondence of patient satisfaction and nurse burnout," *Social Science and Medicine*, vol. 47, no. 10, pp: 1611-1617.
15. Linn, L., Brook, R., Clark, V. (1985) "Physician and patient satisfaction as factors related to organisation of internal medicine group practices." *Medical Care*, vol. 23 no.10, pp: 1171-1178.
16. Weisman, C.S. & Nathanson, C.A (1985). "Professional Satisfaction and Client Outcomes." *Medical Care*, vol. 23, no. 10, pp: 1179-1191.
17. Demerouti, E., Bekker, A., Nachreiner, F. & Schaufeli, W. (2000). "A model of burnout and life satisfaction amongst nurses." *Journal of Advanced Nursing*, vol. 32, no. 2, pp: 454-464.
18. Baxter, V. (2002). "Nurses' perception of their role and skills in a medium secure unit." *British Journal of Nursing*, vol. 11, pp: 1312-1321.
19. Takase, M., Maude, P., Manias, E. (2005) "Explaining nurses' work behaviour from their perception of the environment and work values." *International journal of Nursing Studies*, vol. 42, pp: 889-898.

20. Blegen, M.A. & Mueller, C.W. (1987). "Nurses' job satisfaction: a longitudinal analysis." *Research in Nursing and Health*, vol. 10, pp: 227-237.
21. Grieshaber, L.D., Parker, P., Deering, J. (1995) "Job satisfaction of nursing assistants in long-term care." *Health Care Supervisor*, vol.13 no.4, pp: 18-28.
22. Kendrick P (2000). "Comparing the effects of stress and relationship style on student and practicing nurse anesthetics." *American Association of Nurse Anesthetists Journal*, vol. 68, pp: 15-22.
23. Cameron, S.J., Horsburgh, M.E., Armstrong-Stassen, M. (1994) "Job satisfaction, propensity to leave and burnout in RNs and RNAs: a multivariate perspective." *Canadian Journal of Nursing Administration*, vol. 7 no. 3, pp: 43-64.
24. Spector, P.E. (1997). "Job Satisfaction: Application, Assessment, Causes, and Consequences," *Sage Publications*, London.
25. Locke, E. (1976). "The Nature and Causes of Job Satisfaction. Handbook of Industrial and Organizational Psychology, pp. 1297-1349.
26. Lu, H., While, A.E. & Barriball, K.L. (2004) "Job satisfaction among nurses – A Literature Review." *International Journal of Nursing Studies*, vol. 42, pp: 221-227

27. Coomber, B. & Barriball, K.L. (2006). "Impact of job satisfaction components on intent to leave and turnover for hospital-based nurses: A review of the research literature." *International Journal of Nursing Studies*, pp: 1-18.
28. Aiken, L., Clarke, S., Sloane, D., Sochalski, J., Busse, R., Clarke, H., Giovannetti, P., Hunt, J., Rafferty, A. & Shamian, J. (2002). "Nurses' reports on hospital care in five countries." *Health Affairs* vol. 20, no. 3, pp: 43–53.
29. Hart P.D. (2001) "The nurse shortage: Perspectives from current direct care nurses and former direct care nurses." Available at:
http://www.aft.org/healthcare/downloadfiles/Hart_report. PDF accessed 18 October 2007.
30. Lundh, U. (1999). "Job satisfaction among Swedish nurses and laboratory technologists." *British Journal of Nursing*, vol.8, no. 14, pp: 948–952.
31. Suliman WA and Abu Gharieb P. (1996) "Jordanian nurse: Job dissatisfaction and anticipated withdrawal from practice." *Dirasat, medical and biological*, vol.23, no.2, pp: 78-87
32. Lee, F.K. (1998). "Job satisfaction and autonomy of Hong Kong registered nurses," *Journal of Advanced Nursing*." vol. 27, pp. 355–363

33. Sims CE (2003) "Increasing clinical, satisfaction, and financial performance through nurse-driven process improvement." *Journal of Nursing Administration*, vol. 33, no.2, pp: 68-75
34. Healy C and McKay M, (2000) "Identifying sources of stress and job satisfaction in the nursing environment." *Australian Journal of Advanced Nursing*, vol.17, pp: 30-35
35. Happel, B., Martin, T., Pinikahana, J. (2003) "Burnout and Job satisfaction: a comparative study of psychiatric nurses from forensic and mainstream mental health service." *International Journal of Mental Health Nursing*, vol. 12, pp: 39-47
36. Finn, C.P. (2001). "Autonomy: an important component for nurse's job satisfaction." *International Journal of Nursing Studies*, vol. 38, no. 3, pp. 349-357.
37. O'Rourke, K., Allgood, C., Vanderslice, J., Hardy, M.A. (2000) "Job satisfaction among nursing staff in a military health care facility." *Military medicine*, vol.165 no. 10, pp: 757-761.
38. Nolan, M., Nolan, J. & Grant, G. (1995). "Maintaining nurses' job satisfaction and morale." *British Journal of Nursing*. vol. 4, no.19, pp. 1148-1154.
39. Lyon KJ (2003) "A study of job satisfaction of nursing and allied health graduates from a mid-Atlantic university." *Journal of Allied Health*. Spring.

40. Adams, A & Bond, S. (2000). "Hospital nurses' job satisfaction, individual and organizational characteristics." *Journal of Advanced Nursing*, vol. 32, no. 3, pp. 536–543.
41. Kaplan, R.A., Boshoff, A.B. & Kellerman, A.M. (1991). "Job involvement and job satisfaction of South African nurses compared to other Professions." *Curationis*, vol. 14, no. 1, pp: 3-7.
42. Westaway, M.S., Wessie, G.M., Viljoen, E., Booysen, U., Wolmarans, L. (1996) "Job satisfaction and the self esteem of South African Nurses." *Curationis*, vol. 19, no.3, pp: 17-20.
43. Kekana, H.P., Du Rand, E.A., van Wyk, N.C. (2007) "Job satisfaction of registered nurses in a community hospital in the Limpopo Province in South Africa." *Curationis*, vol. 30, no. 2, pp. 24-35
44. Erasmus, B.J., Brevis, T. (2005) "Aspects of the working life of women in the nursing profesion in South Africa: survey results." *Curationis*, vol. 28, no.2, pp: 51-60.

45. Uys, L.R., Minnaar, A., Reid, S., Naidoo, J.R. (2004) “The perceptions of nurses in a district health system in KwaZulu-Natal of their supervisor, self-esteem and job satisfaction.”
46. Lephoko, C.S., Bezuidenhout, M.C., Roos, J.H. (2006) “Organizing climate as a cause of job dissatisfaction among nursing staff in selected hospitals within the Mpumalanga Province.” *Curations*, vol. 29, no. 4, pp: 28-36
47. Erasmus, B.J. (1998). “Nursing Professionals views on the Workplace,” *Curationis*, Dec., pp: 50-57.
48. Armstrong, J.S., Overton, T.S. (1977) “Estimating Non response Bias in Mail Surveys.” *Journal of Marketing Research*, vol. 14 no. 3, pp: 396-402
49. Van Saane, N., Sluiter, J.K., Verbeek, J.H.A.M. & Frings-Dresen, M.H.W. (2003). “Reliability and validity of instruments measuring job satisfaction – a systemic review.” *Occupational Health Medicine*, vol. 53, pp. 191-200.
50. Seo, Y., Ko, J. & Price, J.L. (2004). “The determinants of job satisfaction among hospital nurses a model estimation in Korea.” *International Journal of Nursing Studies*. vol. 41, pp: 437–446.

51. Willem, A., Buelens, M. & De Jonghe, I. (2006). "Impact of organizational structure on nurses' job satisfaction: A questionnaire survey." *International Journal of Nursing Studies*, pp. 1-10.
52. Barrows, D. & Wesson, T. (2000). "A comparative analysis of Job satisfaction among public and private sector Professionals." *The Public sector Innovation Journal*, pp:1-21.
53. Mrayyan, M.T. (2005) "Nurse job satisfaction and retention: comparing public to private hospitals in Jordan." *Journal of Nursing Management*, vol. 13, pp: 40-50.
54. Andrews, D.R. & Dziegielewski, S.F. (2005). "The nurse manager: job satisfaction, the nursing shortage and retention." *Journal of Nursing Management*, vol. 13, pp. 286-295.
55. Davenport, T. H. (1999). "Human capital: What it is and why people invest it." San Francisco, CA
56. Jackson D, Clare J, Manni J.,(2002). "Who would want to be anurse? Violence in the workplace –a factor in recruitment and retention." *Journal of Nursing Management.*, vol.10, pp: 13-20

57. Gieter, S.D., De Cooman, R., Pepermans, R., Caers, R., Du Bois, C., Jegers, M.
(2006) "Identifying nurses' rewards: a qualitative categorization study in Belgium."
Human Resources for health, vol. 4, no. 15
58. Horwitz, F.M., Chang Teng Heng, Hesan, A.Q., Nonkwelo, C., Roditi, D. & Van Eck, P. (2006). "Human resource strategies for managing knowledge workers: an Afro-Asian comparative analysis." *International Journal of Human Resource Management*, vol.17, no. 5, pp: 775-811.
59. Irvine, D.M. & Evans, M.G. (1995). "Job satisfaction and turnover among nurses-integrating research across studies." *Nursing Research*, vol. 44, no. 4, pp: 246-253.
60. Herzberg, F. (1966). "The motivation-hygiene theory. In *Organizational Theory*" (D. Pugh, Ed.). Penguin, Harmondsworth.

List of Tables

Table 1 Respondent Characteristics and future work plans

		Frequency	Valid Percent
Gender (N=559)	Male	33	5.9
	Female	526	94.1
	Total	559	100
Age (N=562)	<30	24	4.3
	30-40	127	22.6
	>40	411	73.1
	Total	562	100
Place of Employment (N=557)	Mpumalanga	27	4.8
	Limpopo	42	7.5
	Northern Cape	11	2
	Gauteng	149	26.8
	Free State	36	6.5
	North West	24	4.3
	Eastern Cape	63	11.3
	Kwa-Zulu Natal	116	20.8
	Western Cape	89	16
	Total	557	100
Sector of Employment (N=550)	Private	219	39.8
	Public	331	60.2
	Total	550	100
Intention to Change sector (N=540)	Yes	188	34.8
	No	352	65.2
	Total	540	100
Years of Nursing Experience (N=563)	0-9	66	11.7
	10-19	157	27.9
	>20	340	60.4
	Total	563	100
Work Plan for next 5 years (N=536)	Remain in current position	162	30.2
	Leaving nurse for another profession	68	12.7
	Quit nursing and retire from all forms of employment	50	9.3
	Work abroad	84	15.7
	Further training in nursing	125	23.3
	others	47	8.8
	Total	536	100

Table 2 Reliability and descriptive statistics for work satisfaction subscales -

Satisfaction Factors	All Respondents			Private Sector			Public Sector		
	N of Items	Cronbach's Alpha	Mean	N of Items	Cronbach's Alpha	Mean	N of Items	Cronbach's Alpha	Mean
Autonomy	4	0.869	3.059	4	0.854	3.487	4	0.85	2.803
Resources	5	0.887	2.727	5	0.848	3.397	5	0.84	2.306
Career Opportunities	6	0.925	2.592	6	0.936	2.987	6	0.896	2.337
Relation with Nurses	4	0.897	3.582	4	0.893	3.697	4	0.901	3.514
Patient Care	5	0.878	3.734	5	0.867	3.984	5	0.872	3.571
Relation with Management	5	0.96	2.679	5	0.966	3.124	5	0.943	2.406
Relation with Doctors	4	0.939	3.391	4	0.941	3.528	4	0.939	3.317
Personal Time	4	0.917	2.868	4	0.939	3.12	4	0.896	2.706
Safety	4	0.925	2.839	4	0.923	3.57	4	0.878	2.351
Community	3	0.902	3.368	3	0.915	3.598	3	0.887	3.226
Pay	4	0.919	2.02	4	0.934	2.397	4	0.881	1.787
My Career	4	0.87	3.047	4	0.888	3.507	4	0.835	2.751
Work Load	5	0.922	2.244	5	0.927	2.777	5	0.889	1.94
Overall satisfaction			2.935			3.321			2.693

Table 3 Differences in Satisfaction levels between different categories of nurses -ANOVA F-Values and Levels of significance (p)

SATISTRACTION FACTORS	Gender	Age	Province	Sector	Change Sector	Experience	Work Plan	Return
Autonomy	0.904(0.342)	0.449(0.639)	1.410(0.189)	64.985(0.000)	48.767(0.000)	2.272(0.104)	17.040(0.000)	2.810(0.066)
Resources	3.850(0.050)	0.022(0.978)	3.770(0.000)	225.148(0.000)	17.941(0.000)	3.005(0.030)	19.399(0.000)	3.378(0.039)
Career Oppportunities	0.065(0.798)	2.793(0.062)	1.643(0.110)	60.310(0.000)	57.493(0.000)	7.389(0.001)	22.204(0.000)	1.972(0.146)
Relation with Nurse	0.160(0.689)	0.287(0.751)	1.350(0.216)	5.793(0.016)	7.617(0.001)	0.133(0.941)	5.470(0.000)	1.240(0.295)
Patient Care	1.240(0.266)	1.911(0.149)	0.492(0.862)	35.100(0.000)	12.951(0.000)	3.297(0.038)	8.352(0.000)	0.747(0.477)
Relation with Management	0.047(0.828)	2.831(0.060)	2.579(0.009)	58.031(0.000)	60.079(0.000)	6.974(0.001)	21.720(0.000)	0.914(0.405)
Relation with Dr	0.546(0.460)	4.611(0.010)	2.062(0.038)	5.425(0.020)	6.131(0.002)	3.735(0.011)	3.901(0.002)	0.437(0.647)
Personal Time	0.529(0.467)	0.790(0.455)	2.742(0.006)	22.198(0.000)	9.478(0.000)	2.374(0.069)	7.157(0.000)	1.617(0.207)
Safety	0.589(0.443)	0.661(0.517)	5.317(0.000)	188.452(0.000)	27.226(0.000)	3.793(0.010)	16.494(0.000)	2.461(0.092)
Community	0.049(0.825)	1.914(0.149)	3.245(0.001)	19.480(0.000)	14.037(0.000)	3.525(0.015)	10.518(0.000)	0.904(0.409)
Pay	0.452(0.501)	1.190(0.305)	2.239(0.023)	56.230(0.000)	27.994(0.000)	2.539(0.056)	21.161(0.000)	1.483(0.233)
My career	0.585(0.445)	1.640(0.195)	1.962(0.049)	78.945(0.000)	24.174(0.000)	3.337(0.019)	20.555(0.000)	3.848(0.025)
Work Load	0.063(0.803)	0.414(0.661)	2.135(0.031)	97.721(0.000)	32.510(0.000)	1.913(0.149)	12.914(0.000)	1.617(0.207)