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Factors affecting job satisfaction for radiographers in Gauteng, South Africa

Thandokuhle Khoza *N Dip Radiography (D) UJ; B-Tech Radiography (D) UJ; M-Tech Radiography (D) UJ* | **Tracey Pieterse** *N Dip Radiography (D) (T) TWR; B-Tech Radiography (D) (T) TWR; M-Tech Radiography UJ* | **Jenny Motto** *N Dip Radiography; HDSR (Britain); HED (UNISA); M-Tech Education (TWR)*

Medical Imaging and Radiation Sciences, University of Johannesburg, South Africa

Abstract

Background Statistics indicate that there are more radiographers per population of 10 000 employed by the private sector in comparison to the public sector, in South Africa. This could affect the delivery of effective x-ray services within the public sector hospitals in Gauteng. The Gauteng province could be the one worst affected by the unequal distribution of radiographers, since the majority of private hospitals are situated within this province.

Aim The aim of the study was to determine the factors that contribute to diagnostic radiographers leaving the public sector to work for the private sector in Gauteng.

Materials and methods The study utilised a quantitative descriptive cross-sectional design to ascertain the factors that contribute to diagnostic radiographers leaving the public sector. A self-developed questionnaire was hand delivered to diagnostic radiographers in 22 private hospitals within the Gauteng province.

Results and conclusion The data analysed, using the paired samples t-test, demonstrated the following factors had a large effect on radiographers leaving the public sector: remuneration, working conditions, professional support and career development.

Keywords remuneration, working conditions, professional support, diagnostic radiographers.

Introduction

Upon qualification and completing compulsory community service, South African radiographers can choose to work in either the private or public sector. Most opt to work in the private sector as indicated by statistics released by the Human Resources for Health South Africa (HRHSA) in 2012. These statistics show that there are more radiographers per population of 10 000 in the private sector (70.4%) than those in the public sector (29.6%),^[1] indicating the need to retain more radiographers in the public sector. In addition the National Department of Health (NDH) introduced policies in an effort to improve service delivery in the public hospitals, through the National Core Standards for Health Establishment in South Africa. If the Gauteng Department of Health (GDH) intends to achieve the NDH's plan to fast track service delivery to patients in public hospitals in the province, they need to improve both attracting radiographers to work in the public sector and their retention.

Retention and attraction strategies of radiographers should be based on factors that contribute to job satisfaction; literature shows that job satisfaction plays a huge

role in retention of employees. According to the literature remuneration,^[2-3] professional support,^[4] working conditions,^[5] and career development structures,^[6] are amongst the major factors that contribute to job satisfaction for radiographers. Studies relating to job satisfaction among radiographers have been done in other countries by Eslick^[2] Raj^[3] and Watson.^[4] This paper presents the results of a study indicating the factors that could have a negative impact on the retention of diagnostic radiographers within the public sector in Gauteng, South Africa. The aim of the study was to determine the factors that contribute to diagnostic radiographers leaving the public sector to work for the private sector in Gauteng. Two objectives were identified in order to fulfil the aim.

1. To identify and describe the factors that contribute to diagnostic radiographers leaving the public sector to work for the private sector in Gauteng.
2. To make recommendations that could assist the GDH to attract and retain radiographers within the public sector.

Methodology

A quantitative descriptive cross-sectional design was utilised in the study. To address the objectives identified, data were col-

lected through a self-developed questionnaire containing both open and closed ended questions. The questionnaire (Table 1) was designed based on an extensive online literature review relating to job satisfaction of radiographers and allied professions, and comprised of four sections. Section A of the research tool was used to obtain biographical information from the participants. Sections B and C asked questions that were identical: one was based on the private sector and the other on the public sector in order to extract data to determine if there was any difference that existed in the factors identified between the two respective sectors. These two sections had 22 statements that participants could either strongly agree or strongly disagree with using a Likert scale from 1-5. Section D incorporated open-ended questions, designed to provide participants an opportunity to give insight to information that the closed-ended questions failed to address.

Prior to commencing data collection, a pilot study was conducted to improve the content validity of the questionnaire. This was followed by a group discussion to refine the self-developed questionnaire. The pilot group consisted of radiographers who were currently employed in the pri-

vate sector and had previously worked in the public sector. They were purposefully selected as they were considered to be information rich for this study, providing valuable input and insight and therefore increasing the content validity of the questionnaire. The group discussion was audio-recorded by the researcher and permission to record the group discussion was granted by the participants. Once the questionnaire had been refined, it was hand delivered to imaging departments within private hospitals in the Gauteng province. Twenty-four private hospitals in Gauteng province were purposefully selected and 22 gave consent for the distribution of the questionnaires. They employed radiographers who had previously worked in the public sector.

Inclusion criterion for participation in the study was all radiographers who were previously employed by the public sector and were employed by the private sector in Gauteng at the time of data collection. A total of 147 radiographers met the inclusion criterion and were therefore selected to participate in the study. Questionnaires were hand delivered by the researcher between November 2014 and January 2015.

Permission to conduct the study was obtained from the head radiographer in the selected private hospitals through a written request. Ethics approval was obtained from the University of Johannesburg Ethics Committee.

Participation in the study was deemed vol-

untary and no financial incentives were offered to the respondents. Furthermore respondents' right to anonymity was respected by ensuring that the questionnaire did not require them to state their name, as well the respective details of their previous or current employer. Completion of the questionnaire was considered as giving consent to participate in the study.

Results

The response rate was 67% with a total of 99 of the 147 questionnaires completed and collected by the researcher. In the sample collected there was an unequal distribution between males (14%) and females (84%). Majority of the respondents were between the ages of 21-33 years

Table 1. An example of the questionnaire for Section B and C

	1 STRONGLY AGREE	2 AGREE	3 NEUTRAL	4 DISAGREE	5 STRONGLY DISAGREE
The workload was fairly shared					
My overtime was paid on time					
There were possibilities of training in CT					
I was happy with my working environment					
My salary correlated with my duties					
My duties were clearly defined					
I was happy with my personal safety					
Overtime was available					
Resources such as properly functioning x-ray machines were available					
Working hours were flexible					
I was happy with the supervision from my immediate supervisor					
I received support from my colleagues when dealing with difficult patients					
There were possibilities of being promoted to the next salary notch					
There were clear structures for career development					
I was happy with my salary					
There were possibilities of training in MRI					
My performance development standards (PMDS)/ performance appraisal was fairly done					
I had confidence in management in handling my work related issues					
I was frequently abused by patients					
I was pressured to work long hours					
Consumables such as gloves and patients gowns were available					
I was appreciated by management for the effort I put into my work					

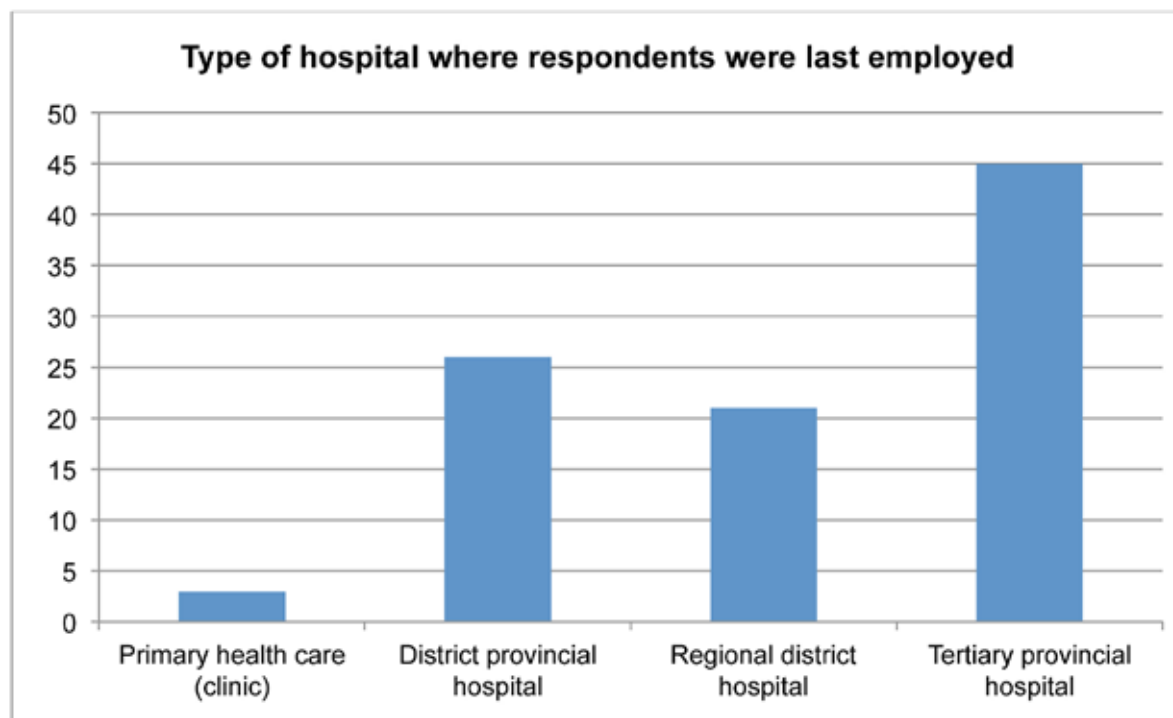


Figure 1. Type of hospital where respondents were employed.

(70.7%), followed by ages of 34-49 years (20.2%), above the age of 50 years (8.1%). Some of the questions were not completed by the respondents which resulted in incomplete data.

Forty-five percent (45%) of respondents had been employed in a public hospital for a period of 1-5 years; 32% had only worked for a year in a public hospital when they completed their one year compulsory community service. In order to gain the information required for this study, it was necessary to only include respondents working in the private sector and who had previously been employed in the public sector.

The results from the factors affecting job satisfaction, and identified for this study yielded the following information.

• Levels of public sector employment

Sixteen percent (16%) had been employed at a public hospital for a period of 5-10 years. Only 4% had been employed for >15 years in the public sector. Most (45.5%) had last been employed in a tertiary hospital; 26.3% at a district provincial hospital; 21% at a regional district hospital; 3% at a primary health care facility (see Figure 1).

• Remuneration

A paired samples t-test was conducted to determine if there was any difference in the remuneration offered by the public sector and the private sector in Gauteng. There was a statistically significant difference in remuneration when the respondents moved from the public sector ($M = 3.2801$, $SD = 1.0202$) to a private sector facility ($M = 2.2526$, $SD = .84201$), $t(96) = 7.59$, $p < .0005$ (two-tailed). The mean difference was 1.03 with a (95%) confidence interval ranging from .76 to 1.3. The eta-squared statistics (.38) indicate that remuneration had a large effect on radiographers moving from the public sector to the private sector in Gauteng. The contributing factors to the statistical significant difference in the remuneration offered by the private and public sector are indicated in Table 2 and 3, respectively.

• Working conditions

A paired samples t-test was done to determine the level of difference in working conditions between the public sector and private sector in Gauteng. The results showed that there was a statistically significant difference in the working conditions between the public sector ($M = 2.918$, $SD = .818$) and the private sector

($M = 1.797$, $SD = .584$) $t(96) = 10.673$, $p < .0005$ (two-tailed). The mean difference in scores was 1.122 with a (95%) confidence interval ranging from .913 to 1.329. The eta-squared statistics (.54) indicated that working conditions had a large effect on radiographers opting to leaving their public sector posts for ones in the private sector in Gauteng.

• Professional support

A paired samples t-test was done to determine the difference in professional support between the public and the private sector. Professional support for radiographers includes support received from their colleagues, immediate supervisors, and management. The results showed that there was a statistically significant difference in professional support received by radiographers in the public sector ($M = 3.003$, $SD = .914$) in comparison to that received in the private sector ($M = 2.101$, $SD = .766$), $t(95) = 7.156$, $p < .0005$ (two-tailed). The mean difference in scores was .902 with a (95%) confidence interval ranging from .651 to 1.152. The eta-squared statistics (.35) indicated that professional support had a large effect on radiographers moving to the private sector in Gauteng.

Table 2. Remuneration for radiographers in the public sector

	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
My overtime was paid on time	11.6%	24.2%	15.8%	24.2%	24.2%
My salary correlated with my duties	12.2%	25.5%	21.4%	19.4%	21.4%
Overtime was available	17.5%	36.1%	21.6%	15.5%	9.3%
I was happy with my salary	3.2%	21.1%	25.3%	23.2%	27.4%

Table 3. Remuneration for radiographers in the private sector

	STRONGLY AGREE	AGREE	NEUTRAL	DISAGREE	STRONGLY DISAGREE
My overtime is paid on time	71.9%	24%	2.1%	1%	1%
My salary correlates with my duties	17.5%	39.2%	14.4%	20.6%	8.2%
Overtime is available	55.2%	33.3%	10.4%	1%	0%
I am happy with my salary	10.4%	37.5%	17.7%	21.9%	12.5%

• Career development

A t-test was performed on career development to determine if there was a difference between the public and private sector in Gauteng. The results obtained showed that there was a statically significant difference in career development between them: public sector (M = 3.492, SD .907) and private sector (M = 2.354, SD .830) $t(96) = 7.883$, $p < .0005$ (two-tailed). The mean difference in scores was 1.137 with a (95%) confidence interval ranging from .850 to 1.423. The eta-squared statistics (.39) indicated a large effect for career development on radiographers opting to move to the private sector in Gauteng.

Discussion

The results obtained in this study focused on radiographers who have left the public sector for the private sector. Highlighted aspects of factors affecting job satisfaction between the public and private sector are discussed. The researcher acknowledges that there may be many factors contributing to job satisfaction within the public sector. These factors are however beyond the scope of this paper.

The paired samples t-test showed that remuneration had a large effect on respondents' intentions to leave the public sector for the private sector in Gauteng. The contributing factors to the results of the paired samples t-test were the level of satisfaction with their salaries and overtime. A substantial percentage (47,9%) of the respondents indicated that they were much happier with their remuneration when

they moved to the private sector, thus motivating their move. Furthermore their overtime money was paid on time by the private sector in comparison to the public sector. According to McCoy et al^[7] delay in overtime money payment could have a negative impact on employees' loyalty to an organisation.

Friendship networks formed at work, as well as working together as a team, encourage job satisfaction in the health care sector, and these employees are less likely to miss work and have a sense of loyalty towards their place of employment.^[8] The respondents in this study indicated that there were very low levels of team work as pertaining to handling the workload while they were employed in the public sector and this also led to animosity amongst colleagues. The level of supervision from immediate supervisors was scored very low for the public sector. Some respondents stated that their performance development standards (PMDS), were unfairly rated by their supervisors. Which correlates to earlier finding amongst radiographers in the Tshwane district.^[9] Fair application of PMDS ratings are crucial for radiographers employed by the public sector, since they are associated with grade progression. Unfair application of these ratings could result in a radiographer being on one salary grade for 10 years, when automatic grade progression occurs.^[10]

The majority of respondents indicated that whilst employed in the public sector there was shortage of basic resources such as patient gowns and gloves. These

findings were parallel to a study amongst radiographers in the Tshwane District.^[9] Implications of poor working conditions amongst nurses in South Africa led to them intending to vacate their posts in the public sector.^[11] Equipment-related issues were also a great concern for the respondents while employed in the public sector. Only 15.5% indicated that there were functional x-ray units while employed in the public sector. Implementation of sub domain 7.2, in the National Core Standards,^[12] which seeks to ensure that operational plan, machinery and equipment are well maintained, could be used to address the concerns raised by the respondents.

An opportunity of being exposed to the latest of technology has the ability to enhance job satisfaction amongst radiographers. Such an opportunity was low in the public sector.^[13] Magnetic resonance imaging (MRI), and computed tomography (CT), are considered to be amongst the specialised areas of radiography. The respondents indicated a very low possibility of being exposed to these specialised imaging modalities while employed in the public sector. These are amongst the factors that the Gauteng Department of Health needs to address in an attempt to improve the retention and attraction of radiographers within the public sector.

Recommendations

The majority of respondents, who had left the public sector for the private sector, were from tertiary hospitals. Further studies should be undertaken on reasons for movement from such hospitals to the

private sectors in terms of contributing factors to job satisfaction. The respondents indicated lower levels of satisfaction with their salaries regardless of the implementation of occupational specific dispensation (OSD) in 2010. Further studies should be conducted to determine the impact OSD has had for radiographers. The delay in payment of overtime in the public sector could be addressed by the implementation of commuted overtime, which has been used for other health-care professionals.

Limitations

The response rate to the open-ended questions was poor, therefore valuable input from the respondents could have been missed. There are numerous factors that could have contributed to the low response rate. Such factors could have been controlled with the presence of the researcher to oversee the process.

The findings reported in this study reflect the opinions of radiographers in private practice; the researcher acknowledges that there may be factors that encourage radi-

ographers to remain in the public sector. Perhaps these factors should be explored through an appreciative enquiry study and presented on a radiography platform.

Conclusion

Further research on job satisfaction for diagnostic radiographers employed by the public sector in Gauteng should be undertaken. A follow-up study should be conducted after the recommendations of the study have been implemented to determine if they had a positive impact on diagnostic radiographers' job satisfaction employed by the public sector. Furthermore, the researcher intends to write an additional article indicating the guidelines for the retention of radiographers within the public sector in Gauteng, South Africa, based on the results of this study.

The private sector in Gauteng seems to have a combination of factors that could lead to the attraction of radiographers, hence the unequal distribution between the two sectors. The government's attempts to attract and retain radiographers within the public sector might be successful if

policies passed by the National Department of Health are properly implemented. Policies such as the occupational specific dispensation need to be implemented effectively. Follow-ups on the effects of such policies should be regularly undertaken.

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Competing interests

At the time of the study, the researcher was employed at a public hospital in Gauteng, South Africa and this may be seen as a conflicting interest.

Contributions of authors

TP (UJ) and JM (UJ) supervised the study. TK undertook all data collection and writing up of the paper. All contributed to the analysis of understanding the data as well writing the draft of this paper.

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