

## **Factors impacting on the retention of Radiographers in KwaZulu-Natal Province, South Africa**

J.M. THAMBURA<sup>1</sup>, L.D. SWINDON<sup>2</sup> AND L.O AMUSA<sup>3</sup>

<sup>1</sup>*Department of Radiography, University of Pretoria, Arcadia, South Africa.*

*E-mail: julius.thambura@up.ac.za*

<sup>2</sup>*Department of Radiography, Durban University of Technology, Dalbridge, South Africa*

<sup>3</sup>*Centre for Biokinetics, Recreation and Sport Science, University of Venda, Private Bag X5050, Thohoyandou 0950, South Africa*

### **Abstract**

Staffing crisis in healthcare profession is not only a South African issue, but a global concern. Radiography is also one of the professions affected. According to records from Kwazulu-Natal (KZN) department as at 8<sup>th</sup> August 2013, there were 427 vacancies in the year 2008, 445 vacancies in 2009, 447 in 2010, 79 vacancies in the year 2011 and 81 vacancies in 2012. The vacancies in 2011 and 2012 were low because the government froze all posts that were not filled. Hospitals are thus understaffed. This study aimed to explore factors impacting on the retention of radiographers in KZN. A quantitative, descriptive survey design was used by completing an online questionnaire. The findings indicate that, in addition to the workload, radiographers were unhappy with salary and remuneration. They also stated that their expectations regarding the profession, careers progression opportunities were hindered. This was as a result of limited opportunities for professional development in the context of a limited scope of practice and over-dependence on the professionals themselves. The issue of scope of practice should be reviewed to align with the career progression which could create greater professional satisfaction and retention of radiographers within the KZN province in South Africa.

**Keywords:** Radiography, radiographer, retention, job satisfaction, remuneration.

### **How to cite this article:**

Thambura, J.M., Swindon, L.D. & Amusa, L.O. (2014). Factors impacting on the retention of Radiographers in KwaZulu-Natal Province, South Africa. *African Journal for Physical, Health Education, Recreation and Dance*, 20(3:2), 1202-1208.

### **Introduction**

Radiography is a challenging and rapidly advancing profession with a high personnel demand globally. Radiographers are employed by government and private hospitals. Many radiographers in South Africa are leaving the public service for private practices and for employment in other countries (Society of Radiography of South Africa, 2008). The KwaZulu-Natal (KZN) Annual Performance plan (Department of Health, 2010) reported that in 2010, there were 1,621 vacant radiography posts in Republic of South Africa with 436 of these in the KZN province, giving a vacancy rate of 49% for the province. According to a draft publication of the Department of Human Service in Australia (2005), medical imaging appeared 18 times on the scarce skills list in the past 25 years. In the same year, the United Kingdom department of health provided funding of £3.4 million to implement a high profile strategy to attract, recruit and retain

personnel in radiography. This process was successfully marked by an improvement in attracting and retaining those that had been out of the radiography profession for a long time (Australian Department of Human Services, 2005). Vosper, Price and Ashmore (2004) noted an increase in the number of vacant posts in therapeutic and diagnostic radiography in Hertfordshire, United Kingdom at that time. They stated that in the previous two years the increase was between 5.5% and 8.8% and was as a result of poor retention strategies.

Page and Willey (2007) stated that recruitment and retention should meet the population needs in any particular profession to enhance sustainable service delivery. Therefore, this study aimed to investigate the possible factors causing staffing challenges in the radiography profession as well as reasons why radiographers are leaving the South African private and public sector, opting for other careers and emigrating to work in other countries.

## **Methodology**

### *Research design*

A descriptive survey with a cross-sectional design was used (Brink, 2010). This method was chosen as this study was not a truly experimental; it is a quasi-experimental.

### *Target population*

The study focused on radiographers who had previously worked in the KZN province and immigrated to foreign countries. Radiographers from the four radiography disciplines were considered.

### *Sample selection*

Convenient sampling method was used (Brink, 2010). This method involves the use of readily available participants. The researchers were introduced to the respondents by a known mutual colleague in order to encourage participation and to verify that the questionnaire was genuine and valid. All the available radiographers were contacted through various social networks. Researchers got the contacts details from of participants who agreed to participate in the study.

### *Ethics clearance*

Prior to data collection, ethical approval was sought from the Institutional Research Committee (IREC) from Durban University of Technology. The online link for the questionnaire included a letter of information and consent which the

respondent was asked to read prior to completing the questionnaire. The responses to the questionnaires were kept anonymous and all information was treated as confidential.

*Data analysis*

The data were analysed using the statistical software SPSS version 21.0. The resultant descriptive statistics was represented using frequency and cross-tabulation.

**Results**

The questionnaire return rate of 69%, ( $n=20$ ) was achieved with 29 being the target population. All the respondents were female.

**Table 1:** Age distribution and number of years the respondents were qualified

		Age (Years)								Totals (N)
		25 - < 30		30 - < 40		40 - < 50		50 - < 60		
		%	N	%	N	%	N	%	N	
Experience (years)	0 - < 5	31.3	5	6.3	1	0.0	0	0.0	0	6
	5 - < 10	12.5	2	12.5	2	6.3	1	6.3	1	6
	10 - < 15	0.0	0	0.0	0	0.0	0	6.3	1	1
	15 +	0.0	0	0.0	0	12.5	2	6.3	1	3
	Totals	43.8%	7	18.8%	3	18.8%	3	18.8%	3	16

The majority of the respondents (43.8%,  $n=7$ ) were between 25 and 30 years. The remaining respondents were equal in the other three older categories. It is also noted that ( $n=12$ ) of the emigrants had less than ten years post qualification experience.

**Table 2:** Perception of the respondents on radiography profession

Statements	N	Disagree	N	Agree
Radiography is a flourishing and improving career in KZN	6	37.5	10	62.5
The expectations I had of my career in radiography in KZN were met	5	31.25	11	68.75
Radiography in KZN is a well-paid career when compared to its workload	14	87.5	2	12.5
Radiography in KZN has many opportunities for professional advancement	11	68.75	5	31.25
My work and social life in KZN was well balanced	3	26.7	11	73.3
I enjoyed being a radiographer in KZN	2	12.5	12	87.5

As shown on Table 2, 62.5% ( $n=10$ ) of the participants felt that radiography was not a flourishing career in KZN. It does not have many opportunities for the

professional development (68.75%,  $n=11$ ), and the fact that radiography was not a well-paid career compared to its workloads was supported by 87.5% ( $n=14$ ) of the respondents.

On the contrary, the most of the respondents (73.3% ,  $n=11$ ) stated that their work and social life were well-balanced and many of them enjoyed radiography (87.5% ,  $n=12$ ).

**Table 3:** Suggested solutions to retain radiographers within the profession

Variables	n	%
Better pay	1	68.8
Scope of practice of radiographers should be advanced and diversified to avoid overdependence on other professionals	2	12.5
Streamline academic structures to encourage specialization which will reduce stress at work	1	6.3

Table 3 shows that majority of the respondents (68.8% ,  $n=11$ ) stated that a better pay could encourage the radiographers to remain in their places of employment and in KZN. Only 12.5% ,(  $n=2$ ) stated that the scope of practice for radiographers should be advanced and diversified to avoid overdependency on other professions. One respondent stated that streamlining the academic structures would encourage specialization, which would reduce stress at work and attrition.

**Table 4:** The countries respondents emigrated to

Country	n	%
Australia	9	56.3
England	5	31.3
Ireland	1	6.3
Unites States of America	1	6.3
Total	16	100.0

Nearly a third (31.3%,  $n=5$ ) of the respondents opted for England whilst the majority (56.3%,  $n=9$ ) preferred Australia. Ireland and United States of America (USA) attracted 6.3%, ( $n=1$ ) each.

## **Discussion**

The main purpose of this study was to investigate the factors that influenced the retention of radiographers in KZN. In particular, the researchers focused on the emigrants by examining the level of satisfaction of radiographers in this province and the factors promoting emigration.

The age distribution of respondents was significant in that it indicated a fairly mature group of respondents who would have given reliable rexprience-based answers. The fact that majority of the emigrants were below thirty years of age

could be associated with possibility that young professionals had less family ties and commitments. If this trend were to continue, it could result in severe shortage of radiographers once the current working age group retires. This could help the provincial Department of Health (DOH) in strategising a projectile staffing plan.

On the level of the satisfaction of radiographers who had emigrated stated that radiography was not a well paid career compared to its workload in KZN province. There were also less less opportunities for professional development, (68.5% , N=11). These factors can be associated with their emigration. The authors Henderson and Tulloch (2008) stated factors such as the heavy workload, limited opportunities for profession development and limited scope to upgrade qualifications as the factors that made the healthcare personnel to emigrate in Asia-pacific countries. As a reflection to that, In KwaZulu-Natal and South Africa in general , career progression is hard hit by the implementation of Occupational Specific Dispensation (OSD) which does not recognize certificate courses such as CT scanning, MRI scanning as additional qualifications that can be remunerated. It refers mammography certificate as only speciality among nuclear medicine, ultrasound and radiotherapy. Not all the mammographers have been remunerated (Area 1 Radiography manager's forum KZN, 2011). This controversy has been crisis on the fact that radiotherapy, Nuclear medicine and ultrasound are in same level as diagnostic radiography, and their course work and clinical placement takes three years. This is a big discouragement to radiographers who wish to progress academically (Area 1 Radiography manager's forum KZN, 2011).

The respondents also identified salary increment as the most important factor that could be addressed to improve retention. This means that the remuneration of radiography is not at par or comparable to that of the countries to which they emigrated. A number of the respondents also stated that the scope of practice of radiography should be advanced and diversified to avoid overdependence on other professionals. This is inconsistent with Gqweta (2012) recommendations on role extension that image interpretation was necessary in primary healthcare level in South Africa to increase the morale and value of radiographers. Lack of morale and feeling of satisfaction and achievement could aslso be the cause of attrition amongst radiographers. Some of the respondents suggested that radiography career structure could be streamlined to enhance specialisation and lessen radiographers stress levels. Its noted that radiographers have a wide range of duties that they are expected to perform. Therefore they are often exploited at the expense of better service delivery by ras they practice practicing beyond the scope with paltry remuneration and contrary to the code of Ethics of the profession.

The statistics on destination of the respondents' emigration indicated that that Australia was the most preffered destuination, followed by England, Ireland, and

USA . Connel (2010) explains that migration of healthcare workers was caused by uneven global development. The emigration is noted to be from developing countries to the developed countries. Therefore, the living standard is considered better than under developed or developing countries. This is explained by factors such as: poor promotion possibilities, inadequate management support, heavy workloads and limited access to modern technology which is common in developing countries. It is therefore not surprising that South Africa is currently facing similar crisis.

## **Conclusion and recommendations**

Salary is noted to be the greatest motivation for employees but the result of this study has shown that radiographers work much more than they are paid. Attractive remuneration is the main reason highlighted as the motivation factor for better retention of radiographers. Although the overtime compensation and rewards for the service are paid, salary adjustments should also be implemented.

Regarding the working conditions, well-staffed departments are recommended. The duo daily shifts could be the underlying cause of stressful working conditions. The daily, monthly and annual patient-radiographer ratio is recommended to motivate the need for additional staff. Also deserving an urgent attention is the issue of scope of practice to be reviewed to align with the career progression which could create greater professional satisfaction and retention of Radiographers within the province. Although the results are representative from a statistical view point, it recommended that similar studies be conducted in other provinces in South Africa.

## **Acknowledgement**

Appreciation is extended to Dr C.R. Mankanjee for editing the manuscript and Dr F. Peer for being a co- supervisor in this research.

## **References**

Australian Department of Human Services (2005). *Recruitment & Retention of Allie Health Professionals in Victoria – A Literature Review*. Victoria: Human Capital Alliance.

Brink, H. (2010). *Fundamentals of Research Methodology for Health Care Professionals* (2<sup>nd</sup> ed.). Cape Town: Juta.

Department of Health KwaZulu-Natal (2010). *Annual Performance Plan 2010/2011-2012/2013*. Pietermaritzburg, South Africa: Government printers.

Gqweta, N. (2012). The need, perceptions and experiences of South African radiographers in primary care. *The Radiographer*, 50(1), 22-26.

Henderson, L. N. & Tulloch, J. (2008). *Human Resources for Health. Incentives for Retaining and Motivating Health Workers in Pacific And Asian Countries*. Australia, Canberra: BioMed central Ltd.

KwaZulu-Natal Area One Radiography Managers meeting (2011). Pages1-2. Verulam, KwaZulu- Natal.

Page, S. & Willey, K. (2007). Workforce development: planning what you need start with what you have. *Australian Health Review*, 31(98), 8.

The Society of Radiographers of South Africa (2008). *Occupation Specific Dispensation*. Cape Town: The Society of Radiographers South Africa.

Vosper, M., Price, R. & Ashmore, L. (2004) Career and destination of radiography students from university of Hertfordshire, *An international Journal of Diagnostic Imaging and radiotherapy*, 11(2), 79-81.

WHO (2010). *International Migration of Health Worker. Policy Brief*. Organisation for Economic Co-operation and Development. Geneva Switzerland: World Health Organisation.