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The lived experiences of radiographers in Gauteng

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Abstract

Purpose: Evidence suggests that there is a shortage of radiographers globally. This has a detrimental effect on service delivery and patient care received. There has been a call for research to be conducted in the radiography setting in order to address staff retention in the profession.

Objective: To explore and describe the lived experiences of radiographers in a Gauteng setting.

Method: A qualitative, exploratory, descriptive and contextual design was utilised. A purposive sample consisted of diagnostic radiographers in Gauteng, some practicing and others that have left the profession completely. A qualitative research paradigm was used, using focus group interviews to collect data until data saturation was reached. Nineteen (n= 19) radiographers participated in the focus group interviews.

Results: Three themes emerged from the data: experiences that facilitated a positive radiographic experience; experiences that inhibit a positive radiographic experience, and factors that enhance a positive radiographic experience.

Conclusion: The study revealed that the participants (radiographers) in Gauteng are committed to providing excellent patient care and that they value positive interpersonal relationships with their colleagues. They experienced a lack of professional recognition and believe the radiographic profession is plagued by stagnation. The results further revealed that the participants were willing to work towards creating a positive self-image and were committed to introducing more autonomy into the profession.

Keywords retention, autonomy, professionalism and recognition

Introduction

Radiography is perceived as a struggling emergent profession, with a low professional status, due to its low public profile.[1] This in turn leads to a lack of recognition in this healthcare profession, which affects the confidence and self-esteem of radiographers. In addition, the absence of opportunities and career growth within the profession negatively impact on recruitment and retention.[1-3] Literature substantiates the need for professional growth, management roles, greater autonomy in the work environment, as well as the introduction of skill-mix and consultant radiographers, as methods of increasing overall job satisfaction and therefore improving retention rates.[3-4] Radiographer employment positions have grown steadily, both nationally and internationally, over the past decade.[5] Literature has responded to this trend by focusing on concepts such as job satisfaction and retention strategies amongst radiographers.[4-9] Radiographer vacancies have led to questionable levels of job satisfaction, which has a negative impact on patient care received.[10] Therefore, an investigation into the factors that contribute to the declining numbers of practicing radiographers would be deemed valuable.

It has been suggested that research be conducted in a radiography setting to address staff retention in the profession. [6,9] There are limited qualitative studies that explored what it means to be a radiographer in a profession plagued by high stress levels, low levels of job satisfaction and high staff turnover rates. As such the need for this study should be invaluable in terms of enabling the development of guidelines to address staff retention in Gauteng to possibly improve efficiency and the quality of patient care received. After such guidelines have been implemented a follow-up study would be necessary to gain insight into the effect on staff.

The aim of this paper is to present the results of a research study designed to explore and describe the lived experiences of radiographers in Gauteng, with the intention of developing guidelines to facilitate retention of radiographers. For the purpose of this study 'lived experiences' may be defined as participants' perceptions of their professional career as radiographers to date.

Ethical considerations

Permission to undertake the research was sought and granted by the University of Johannesburg, Faculty of Health Sciences Research and Ethics Committees. The ethical principles of respect for autonomy, non-maleficence, beneficence and justice were adhered to throughout the research process.[11] The participants' right to autonomy was respected. Informed consent was obtained from each participant. Confidentiality was ensured as participants were not named during the transcription. They were informed that they were free to withdraw from the study at any point without any penalty. Although there were no direct benefits for participation in the study, the participants were given a platform to share their professional stories in a supportive environment and to partake in a process to promote positive change within their profession.

Methodology

A qualitative, exploratory, descriptive, and contextual research design in phenomenological tradition, was undertaken. This design was employed as it allowed for the interpretation of information rich narratives. It allowed the researcher to explore and interpret the personal meaning of individual experiences of the participant radiographers, which provided insight and a greater understanding of the phenomenon in question. [12] The study was conducted

in Gauteng in South Africa. The inclusion criterion was practicing diagnostic radiographers, as well as those who had left the profession. The study excluded student radiographers. Focus group interviews (FGIs) were held until data saturation was reached. The study included nineteen (n=19) participants. Seventeen (n=17) were in clinical practice and two (n=2) were no longer practicing radiography.

Data collection

Data were collected by means of in-depth FGIs which were conducted at the University of Johannesburg, at the Department of Medical Imaging and Radiation Sciences boardroom on Saturday mornings in July and August 2015. Prior to commencement of the FGIs, permission was sought and granted by the participants to interview them. They were also requested to grant permission to audio-record their interviews. Four interviews were conducted until data saturation was reached. Each audio-recorded interview was conducted for approximately an hour. The audio tapes were later transcribed after written consent was obtained from the participants. The research design employed for this study was a qualitative phenomenological, exploratory, descriptive and contextual design. In line with a phenomenological approach a central question was posed to the participants: "How has being a radiographer been for you?" This guestion allowed for the discussion to open up and the researcher then used probing questions to further gain insight into the participants' lived experiences.

Data analysis

An open, descriptive coding method of data analysis was applied to develop the themes and categories.[12] The data were organised by listening to the audio recorded interviews, then transcribing them verbatim. The participants were anonymised. For additional clarification the researcher's field notes were reviewed. The transcribed data were read and reread several times until the researcher obtained a general sense of the data and their meaning. Coding comprised analysing phrases and comments that had similar meanings and then classifying them into various categories. The categories that emerged from the data were tabulated into various themes and sub-themes utilising descriptive terminology as advocated by Creswell.[12] These sub-themes were

clustered into main overarching themes. These were typed and sent to the participants to ascertain whether the data that emerged were reflective of their respective views. Data saturation was reached after a total of four FGIs. Since the same issues emerged during discussions, additional interviews would not have yielded any further insight.

To ensure the trustworthiness of the study, Lincoln and Guba's model of trustworthiness, as described by Babbie et al,[13] De Vos[14] and Krefting, [15] was applied. The researcher implemented Guba's model utilising the following criteria to ensure credibility: prolonged engagement, indepth focus group interviews, member checking, reflective field notes, and triangulation of the data.[12] During the interviews, member checking was performed consistently to ensure the statements accurately reflected the participants' experiences. Extensive field notes were made by the researcher throughout the process before and after the in-depth FGIs. Triangulation can be defined as the use of another data gathering method and linking the results.[16] In this study, triangulation of the data was achieved by merging the interview data collected with the data received from the researcher's reflective field notes made throughout the research process.[12]

Transferability of the study was ensured by providing sufficient descriptive data that could be compared to another population or setting. For example, a similar study could be undertaken amongst radiogra-

phers in KwaZulu-Natal using the same research design. [12] To ensure consistency, a well-defined audit trail was provided, as well as supporting documentation. This was done to ensure that if this study were to be repeated with similar participants, in the same or similar context, the findings would be similar. [12]

In addition, a confirmability audit was ensured by detailing daily field notes before and after the interviews. Critical to the qualitative paradigm is the concept of reflexivity. It is a conscious attempt by researchers to account for their own experiences so that they may be mindful of the effect that their experiences have on the data collected. In this study the researcher remained vigilant of her biases by employing a strategy of reflexivity.

Findings and discussion

Figure 1 depicts the three main themes. Positive experiences, negative experiences, and enhancing the profession, were evident in the data and a few categories that spoke to these overarching themes. These are discussed below.

• Positive experiences: positive interpersonal relationships; patient care and involvement

This was one of the dominant themes that emerged during the discussions. As soon as the participants started telling their stories of the relationships they had developed it seemed that they became animated. It became apparent during the discussions that it

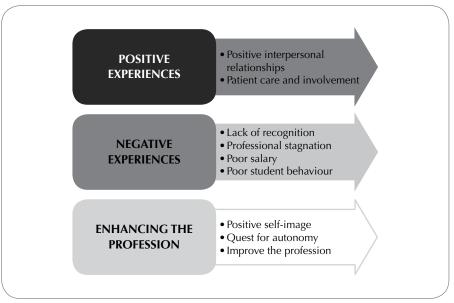


Figure 1. Themes and sub-themes

was important to have collegial friendships. However, great emphasis was also placed on having a good working relationships with radiologists. Establishing a working relationship with radiologists gave the participants a sense that the radiologists respect them and value their opinion. The verbatim quotes in italics reflect the importance that radiographers place on friendships within the workplace.

"I want to leave private then go to province so I can get a chief post there the girls keep me there. We're like family, we're mixed race group and we get along well" (19/07); "So ja we have lots of fun and we make our environment pleasing for us" (19/07); "Um, so they made you stay and they made it comfortable for you" (26/07); "I mean it's eighty percent of your life at work so if you don't have a nice group of people it can make it really hard" (26/07); "The colleagues you work with make... it doesn't matter how busy it is, if you've got a good team working you can do a thousand cases and you won't feel it." (26/07); and "... the group you work with makes a big difference. If everyone gets along, everyone pulls their weight." (26/07).

A South African study documented how radiation therapists revealed a need to develop close personal relationships with colleagues as being important to cement the teamwork required to deliver a good service.[2] Lawrence et al[2] allude to the importance of teamwork. They emphasise how such supportive professional relationships are valued amongst staff. Others suggest that team member dynamics directly affect how well a department functions, and recommend team building exercises to encourage radiographers to be more supportive of each other.[6,17] It is evident in the literature that workplace interpersonal relations should be encouraged as this could result in a stronger desire to stay within an organisation. Individuals who strongly identify with their organisations, enjoy their work and have higher levels of job satisfaction.[18] A strong group cohesion is of utmost importance. Studies have shown that when there is weak group cohesion the resultant outcome could be that employees successfully seek other career opportunities outside of their organisations, which in turn affects turnover rates.[9]

As the participants shared their stories pertaining to the patient care theme the

atmosphere was very positive. They all wanted to share some positive experience they had encountered with patients. They appeared to have a sense of pride by contributing positively to society.

"... every time I think of leaving there's something that holds me back and says no this is where you need to be. Most of the time I think it's just the appreciation you get from your patients who thinks the world of you." (19/07); "I feel like I was born to be a radiographer, I like helping people." 09/08); and "... my mother's a nurse and I know how my mother respects a patient. When I started radiography she said to me... please don't become a person where. Um, you don't care for the person." (09/08).

In nursing literature there is documentation of how positive relationships, between the care giver, and the impact their patients' appreciation has on their lives. A Swedish study documented nurses' experiences with regards to stress and burnout; the nurses placed emphasis on the importance of their nurse-patient relationship. Patients' appreciation and care meant so much to them that they would rather experience a sense of burnout instead of not going to work.[19] The concept of caring amongst Canadian radiation therapists has been documented.[20] A need for human connection was identified as one of the overarching themes in that study. Those researchers reported that the most common reason for choosing a career in healthcare amongst allied members is a strong desire to help others. This is evident by the verbatim comments made by the participants.

• Negative experiences: lack of recognition; professional stagnation; poor salary; poor student behaviour

The participants were very passionate; they seemed to be disdainful when they discussed their lack of recognition, not only from the public, but from colleagues in the medical profession. As evident below it was very clear that public perception of the radiographic profession affected the group. They appeared to have a profound sense of sadness that other professions such as nursing, appeared to be well known and respected, but the radiographic profession was not afforded the same respect.

"Dr's don't recognise you, you're just needed in the department and get

thrown into screening or CT and MR when they need you. Not because they see you as a professional" (19/07); "... you get to a point in your career where you like we know we're professionals or maybe they don't see you as a professional but you know who you are..." (19/07); "...people don't know about it. You know, they don't know what is is, nobody knows what a radiographer is" (02/08); and "...so I think we should be more, well recognised. But currently it seems that we're not getting the recognition... that we deserve" (02/08)

This perceived lack of recognition is echoed in a study, conducted in the Western Cape, in which South African radiographers are seen to be primarily technical due to their complacent demeanour.[21] A United Kingdom (UK) study found that for many years radiographers have worked below their potential and they should work towards advancing their professional development.[22] It is evident that in the radiography profession the quest for recognition has been acknowledged in multiple studies across the globe.

In comparison with the other sub-themes, the discussion of professional stagnation evoked the greatest emotion within the FGIs. The participants who had left the profession dominated the discussions; they voiced their love for radiography, but stagnation within the profession was the reason they decided to leave the profession. The other group members echoed their sentiments; many confessed that due to the 'glass-ceiling', and lack of career progression, they too have seriously considered the same action.

"I'm in this profession that I love, but radiographers are not given opportunities." (19/07); "There's like a plateau that you reach and then you're like, okay, what's next?" (26/07); "I think people are frustrated in it and... 'cause they're just stuck and there's no growth" (26/07); "There's no progression in it and I think that's where the negativity comes from..." (26/07); and "...radiographers are demotivated and possibly because they feel that the profession is stagnant and they can't progress." (02/08).

Stagnation, within a profession, is apparent in other allied professions. Countries such as the UK have tried to implement projects in an attempt to modernise

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healthcare services. Allied professions are attempting to establish a 'skill mix' and create opportunities for role extension. A South African study documented professional stagnation amongst therapy radiographers as one of the main themes presented; the respondents perceived themselves as being 'stuck'. In this study, the participants were of the opinion that they too have very little room for professional growth. A lack of development opportunities for staff has been documented and negatively impacts staff retention and recruitment.

In terms of salary, the participants that have stayed in the profession feel, that as professionals, they do not get paid enough. The group expressed their desire for wanting progress within the profession. They hoped to earn better salaries, but the profession does not allow for much growth. They emphasised how demotivated they felt after furthering their studies and yet they still get paid the same.

"... radiographers are doing something different from radiography and the reasons they are doing it is... they say no radiography is not well paid enough" (19/07); and "So what's the point in doing a B-tech or an Honours? Because you don't get a salary increase..." (26/07).

Nursing literature globally states that many nurses have left the profession due to inadequate monetary compensation. A Swedish study documented that nurses leave the profession due to an unsatisfactory salary and lack of professional opportunities.^[23] Industrial psychologists^[24] echoed these statements in a study on nursing employees in Gauteng. The nurses in the study unanimously agreed that their most important reason for leaving the profession was due to their discontentment and unhappiness experienced due to poor salary.

The participants expressed their disappointment with the calibre of students the profession is attracting. They are of the opinion that the students' professional ethics has dropped which is made evident by the students' lack of interest. In general most of the participants were of the opinion that this new cohort of students has no sense of pride in the profession.

"...when I look at the type of students we're getting and the bad attitude they have..." (19/07); "I think the students are very lazy. They just want a

salary." (26/07); and "...they won't do anything out of their own. No enthusiasm..." (26/07).

It has been reported that nurses, with more years of work experience, had a better attitude towards professionalism.[25] They made better use of their professional organisations, demonstrated more autonomy, and believed that nursing is their calling. In this study the participants, in their discussions, shared these sentiments. They highlighted that the younger generation of students, and newly qualified radiographers did not have the same sense of pride and professionalism that they had when they started in their respective careers. The verbatim quotes emphasised their disdain for this lack of professionalism and evoked in them a sense of sadness and disappointment at the thought of what the future holds for the profession as a whole.

• Enhancing the profession: harnessing positive energy to promote a positive self-image; quest for autonomy; improve the profession

The majority of the participants expressed their love for their chosen career. They felt that they are still passionate about the profession and they want to be recognised for their abilities. Many said that they are still happy and cannot see themselves in another profession. However, they believe a few aspects of the profession need to change. The researcher was heartened hear the participants declare a genuine, untainted love for their chosen profession. A participant who had left the profession stated: "I did love my job, loved doing what I did I loved to learn,." (19/07). It seemed that she was sad to no longer be working with patients. As the discussion continued, it was very rewarding to hear the group discuss how their jobs gave them a sense of joy and love for their career. In the end it was evident that the love for radiography is not lost, even though at times it appears to be overshadowed by the negative commentary regarding what needs to be done in order to promote the necessary positive changes.

"I still love work and I'm very passionate about radiography." (19/07); "I do love my career, that achievement you have after you do your x-ray and it comes out beautiful or after a day you know you have achieved so much" (19/07); "In my opinion radiography it's a fantastic profession. It is so freaking interesting..." (02/08); and "But I

love radiography. Like, I feel like I was born to be a radiographer, like helping people." (02/08).

Autonomy can be defined as "having the authority to make decisions and the freedom to act in accordance with one's professional knowledge base". [26] Anecdotal accounts of the participants exposed a profound need for autonomy. They expressed a strong desire for additional training and highlighted the need for exposure to other imaging modalities, so that they can feel challenged and grow in a professional capacity. This desire to work independently and be respected in their profession was made abundantly clear.

"Personally I feel rotation is better because you get to know everything... and now that I rotate I do feel a little better." (26/07); "So rotation is very important just so everyone can do everything..." (26/07); And "It basically comes down to role extension." (02/08).

It is evident from the above cited comments that the participants from Gauteng seek recognition and autonomy in the form of role extension as well as skill mix. It has been documented that newly graduate radiographers expressed their desire for autonomy and how they wanted to make their own career decisions.[9] Therapy radiographers in the UK felt powerless because their work experience was controlled by management. They had no say and strived to achieve a level of autonomy.[5] Autonomy has been a popular discussion amongst the nursing profession for many years. In 2002, an Australian study found autonomy to be a compounding factor in nurses' job satisfaction. The study further revealed autonomy was the most important component for registered nurses.[27]

In this study the participants were encouraged to think of strategies to improve the profession. They were encouraged to dream of what it would be like in an ideal radiographic profession. Many started by expressing their need for flexibility regarding working hours. The majority spoke about how limited human resources are and the workload they have to carry. A great desire was expressed for role extension and fair monetary compensation.

"Ja, pattern recognition would be good because in some of the rural places we don't have a radiologist" (26/07); "...um, injection courses for radiographers, that's also role extension." (26/07); "Less hours so we can be a mother as well" (02/08); "...more flexible... more staff" (02/08); and "I think role extension would play a... a big role in motivations radiographers to want to be more than just a button pusher, that type of thing" (09/08).

Upon reviewing the responses, it is apparent that role extension is in great demand amongst the radiographers in Gauteng. Most of the participants seemed to want to take on this challenge with much enthusiasm. Their responses echo the literature from other countries.[3,9,10,22] Furthermore, the need for more flexible working hours was documented when the impact of a four tier profession in radiography was investigated.[3] The study indicated that the UK government hoped to remove unnecessary role descriptions and to introduce a flexible work environment to encourage role development. There is some research based literature in the South African context regarding radiographic role extension. [23,28-30] These studies clearly document that South African radiographers have an invested interest in extending their roles to better our health-care requirements.

Conclusion

The research aimed to explore and describe the lived experiences of radiographers in Gauteng. The outcomes demonstrated that the participants in the study are focused on patient consideration, and they value their close interpersonal connections in the work environment. Congruent with the literature, they indicated that they experience professional stagnation and feel that they are not adequately compensated. They demonstrated a love for their profession and a willingness to work at improving it. They showed a desire to increase their responsibility in the hopes of achieving the recognition they deserve.

Limitations

The focus of this research was confined to Gauteng as it was contextual in nature.

It would be of value to interview radiographers from various provinces in South Africa to determine whether these themes would be consistent in other settings.

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Contributions of authors

SB was the main researcher who carried out the research project. TP was responsible for the supervision of the research project providing guidance and assisted with interpretation of the results. HL was responsible for the supervision of the research project providing guidance and assisted with interpretation of the results. TP and HL, as academic supervisors, provided critical comments and recommendations throughout the research journey as well as the writing up of the article presented.

References

- Sim J, Radloff A. Profession and professionalization in medical radiation science as an emergent profession. Radiography, 2009; 15: 203-208.
- Lawrence H, Poggenpoel M, Myburgh C. Experiences of being a therapy radiographer. Health SA Gesondhied, 2011; 16 (1): 1-7.
- Woodford AJ. An investigation of the impact/potential impact of a four-tier profession on the practice of radiography A literature review. Radiography, 2006; 12: 318-326.
- Grönroos E, Pajukari A. Job satisfaction of the radiological departments' staff. Eur J of Radiography, 2010; 1: 133-138.
- Probst H, Griffiths S. Job satisfaction of therapy radiographers in the UK: Results of a phase 1 qualitative study. Radiography, 2009; 15:146-157.
- Hutton D, Eddy A. How was it for you? What factors influence job satisfaction for band 5 and 6 therapeutic radiographers. Radiography, 2013; 19:97-103.
- Okaro AO, Eze CU, Ohagwu CC. Survey of Job satisfaction among Nigerian Radiographers in South-Eastern Nigeria. Eur J of Scientific Research, 2010; 39 (3): 448-456.
- 8. Probst H, Griffiths S, Adams R, Hill C. Burnout in therapy radiographers in the UK. BJR, 2012; 85:760-765.
- Williamson K, Mundy LA. Graduate radiographers' expectations of role development The potential impact of misalignment of expectation and valence on staff retention and service provision. Radiography, 2010; 16: 40-47.

- Coomber B, Barriball KL. Impact of job satisfaction components on intent to leave and turnover for hospital-based nurses: A review of the research literature. International J of Nursing Studies, 2007; 4: 297-314.
- Dhai A, McQuoid-Mason D. Bioethics, human rights and health law: principles and practice. Claremont: Juta & Company Ltd, 2011
- 12. Creswell JW. Qualitative inquiry & research design, choosing among five approaches. 3rd ed. Thousand Oaks, CA: Sage, 2013.
- 13. Babbie E, Mouton J, Voster P, Prozesky B. The practice of social research. South African edition. Cape Town: Oxford University Press, 2011.
- 14. De Vos AS. Research at grass roots: For the social sciences and human services professions. 4th ed. Pretoria: Van Schaik, 2011.
- 15. Krefting L. Rigour in qualitative research: the assessment of trustworthiness. The American J of Occupational Therapy, 1991; 45, (3): 154-169.
- 16. Ramlaul, A. Medical imaging and radiotherapy research. Oxford: Elsevier, 2010.
- Verrier W, Harvey J. An investigation into work related stressors on diagnostic radiographers in a local district hospital. Radiography, 2010; 16:115-124.
- 18. Van Dick R, Christ O, Stellmacher J et al. Should I stay or should I go? Explaining turnover intentions with organizational and job satisfaction. British J of Management, 2004; 15 (4): 351-360.
- 19. Billeter-Koponen S, Fredén L. Long-term stress, burnout and patient–nurse relations: qualitative interview study about nurses' experiences. Scandinavian J of Caring Sciences, 2009; 19 (1): 20-27.

- 20. Bolderston A, Lewis L, Chai MJ. The concept of caring: Perceptions of radiation therapists. Radiography, 2010; 16: 198-208.
- 21. Gqweta N. Role extension: The needs, perceptions and experiences of South African radiographers in primary health care. SAR, 2012; 50 (1): 22-26.
- 22. Nightingale J, Hogg P. Clinical practice at an advanced level: an introduction. Radiography, 2003; 9: 77-83.
- 23. Fochsen G, Sjogren K, Josephson M, Lagerstrom M. Factors contributing to the decision to leave nursing care: A study among Swedish nursing personnel. J of Nursing Management, 2005; 13: 338-344.
- 24. Stanz K, Greyling J. Turnover of nursing employees in a Gauteng hospital group. SA J of Industrial Psychology, 2010; 36: 1-11.
- 25. Wynd CA. Current factors contributing to professionalism in nursing. J of Professional Nursing, 2003; 19 (5): 251-261.
- 26. Skår R. The meaning of autonomy in nursing practice. J of Clinical Nursing, 2010; 19 (15-16): 2226-2234.
- 27. Finn CP. Autonomy: an important component for nurses' job satisfaction. International J of Nursing Studies, 2001; 38: 349-357.
- 28. Williams I. Professional role extension for radiographers. SAR, 2006; 44(2): 14-17.
- 29. Williams I. Reporting trauma and emergency plain film radiographs: radiologist support for role extension of South African radiographers. SAR, 2009; 47(1), 15-18.
- 30. Munro L, Isaacs F, Friedrich-Nel H, Swindon L. An analysis of the need for accredited training on the administration of intravenous contrast media by radiographers: results of an online survey. SAR, 2012; 50 (2):27-34.