Experiences of being a therapy radiographer

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© 2011. The Authors. Licensee: AOSIS OpenJournals. This work is licensed under the Creative Commons Attribution License. The purpose of this research was to explore and describe how therapy radiographers experience their profession. A qualitative, exploratory, descriptive and contextual design was utilised. The purposive sample consisted of 14 therapy radiographers employed at an academic hospital in Gauteng, South Africa. Data were collected using focus group interviews until data saturation was achieved. An appreciative inquiry interview technique was utilised, and data analysis was conducted by open coding to identify themes. Themes that were identified were life-giving forces that promote personal and professional engagement resulting in a sense of purpose; professional stagnation; and facilitating change through harnessing positive energy and commitment for change.

Die hoofdoel van hierdie navorsing is om te verken en beskryf hoe radioterapeute hulle beroep beleef. 'n Kwalitatiewe, verkennende, beskrywende en kontekstuele navorsingsontwerp is gebruik. Die doelgerigte steekproef het bestaan uit 14 radioterapeute werksaam by 'n akademiese hospitaal in Gauteng, Suid Afrika. Data is met behulp van fokusgroep onderhoude ingesamel totdat dataversadiging bereik is. 'n 'Appreciative inquiry' onderhoudstegniek is gebruik met die stel van vrae, en data analise is met behulp van oop kodering gedoen om temas te identifiseer. Die temas wat geidentifiseer was is lewensgewende magte wat persoonlike en professionele betrokkenheid bevorder wat 'n singewing tot gevolg het; professionele stagnering; en fasilitering van verandering deur die gebruikmaking van positiewe energie en toewyding vir verandering.

Introduction

Radiotherapy is a branch of radiography that deals with the treatment of cancer patients with radiation (Levin, Sitas & Odes 1994:349). Technicians responsible for the planning and delivery of a course of radiation therapy as prescribed by an oncologist are referred to as therapy radiographers (*Medical, Dental and Supplementary Health Services Act, 1974, Act 56 of 1974*). Radiotherapy is a profession that has seen major technological advances in recent years (Price 2009:185). Therapy radiographers are therefore working in an environment where they are balancing complex technology with the emotional strain of working with cancer patients in a setting where there is no room for error (Bissonnette & Medlam 2010:139) whilst still maintaining a high level of patient care and an empathetic demeanour (Probst & Griffiths 2009:148).

High stress levels, high vacancy rates, an unsatisfied workforce, high burn-out levels, role ambiguity, moderate levels of organisational commitment, and questionable levels of patient care have all been cited in the literature both nationally and internationally as common problems amongst radiographers (Akroyed, Caison & Adams 2002:819; Rutter & Lovegrove 2008:140; Makanjee, Hartzer & Uys 2006:124; Probst & Griffiths 2009:150). Any strategies to alleviate the problems identified tend to be vague and difficult to implement in practice. Furthermore, radiography literature has focused on identifying problems such as stress, burn-out and lack of organisational commitment, without any constructive attempt to identify positive aspects that could assist therapy radiographers to achieve professional fulfilment.

Any research hoping to achieve this aim would need to consider a methodological paradigm shift, such as that evident in appreciative inquiry (AI). AI has evolved from the socio-rationalist paradigm, the ontological assumptions of which rely on the belief that social systems can be changed. It is a form of action research and aims to create new theories that aid change in organisations, based on generating ideas through collecting stories about something at its best (Busche 1995:14–15). The design is one which seeks socio-rational knowledge through interpretive data collection, collaborative dialogue and a consensus of 'what should be' in an organisation (Cooperrider & Srivastva 1987).

AI therefore focuses on positive aspects, thereby shaping future behaviours based on the 'best' of past experiences (Busche 1995:15). This research design is therefore appropriate to enable health care workers to explore possibilities for change without being bound by the restrictions of current problems (Richer, Ritchie & Marchionni 2009:948).

Problem statement

Radiotherapy referrals and therefore the demand for radiotherapy services are increasing, partly due to an ageing population and greater utilisation of radiotherapy for certain cancers (Probst & Griffiths 2007:22). Radiotherapy staff shortages are commonplace both nationally and internationally, and resource planning must therefore include strategies to retain those therapy radiographers who are currently employed and recruitment of additional professionals. However, a retention and recruitment strategy cannot be developed without an understanding of how radiotherapy staff perceive their role in the profession. The research question that guided this research study therefore was: What does it mean to be a therapy radiographer?

Research objectives

The research objective for this research was to explore and describe the process of what it means to be a therapy radiographer by means of AI.

Significance of the study

The significance of the study is to provide novel data on the experiences of therapy radiographers in a South African context. Since radiography has been declared a scarce skill by the Department of Health, and shortages of therapy radiographers are commonplace both nationally and internationally, this study plays a vital role in establishing the experiences of therapy radiographers in a South African context. In this way, the study provides a platform for the profession of radiotherapy to develop retention and recruitment strategies for South African therapy radiographers.

Research method and design

Design

A qualitative, exploratory, descriptive and contextual design which utilised AI focus group interviews was used. Qualitative research designs allow the researcher to explore the meaning of life experiences in order to gain insight into and understanding of phenomena (Burns & Grove 2005:52; Brink 2006:113). Ng and White (2005:224) support the use of qualitative research designs in radiography research, and suggest that qualitative research can be used to research intraand inter-professional issues with the field. An exploratory, descriptive design was used, in which qualitative research methods were followed in order to describe what it means to be a therapy radiographer. AI allowed the use of open dialogue to build a super-ordinate identity of what an idealistic radiotherapy profession could be like, based on the

shared positive experiences of being a therapy radiographer (Cooperrider & Srivastva 1987).

Participants and sampling

The population for this research were staff employed as therapy radiographers at an academic hospital in Gauteng, South Africa. Purposeful sampling was used to select participants. This method ensured that the researcher was able to select participants who were 'information-rich' and would therefore be able to provide infomation specific to the central theme of the research (Creswell 2003:185). Criteria for the purposeful sampling of the participants was that they were currently working as therapy radiographers and were willing to share stories of being a therapy radiographer within a focus group setting.

Sample realisation

Fourteen therapy radiographers, five male and nine female participants, took part in the interviews. Their experience within radiation oncology ranged from those in their first work placement to those with more than 20 years' experience. Many of the participants had worked in more than one oncology centre. Their qualifications ranged from a National Diploma to a Bachelor of Technology degree, and one participant was busy with Masters in Technology studies.

Sample size

A qualitative research design seeks an in-depth understanding of a phenomenon, which is determined by data saturation. Hence the size of the sample also depends on data saturation, which is a subjective determination by the researcher that any further interviews will not provide any new data for development of a new theme (Creswell, 2003:189). Interviews were therefore conducted until there was a repetition of the information regarding what it meant to be a therapy radiographer.

Data collection method

Four focus group interviews were conducted using the 4-D (discover, dream, design and deliver) model of AI developed by Watkins and Mohr (2001:42). Participants were interviewed at the hospital concerned at a time that did not impact on the radiotherapy services offered to the patients, which was largely during lunch breaks and on treatment unit service days. The interview room was private and quiet and suitable for successful audio-taping of the interview sessions. Participants were encouraged to share stories of what it was like to be a therapy radiographer within the phases outlined below.

First participants were asked to share stories where they discovered or focused on times when being a therapy radiographer made them feel alive and fulfilled. Participants were asked the question 'When did you feel most alive and vital at work?' Next participants shared stories where they dreamt and were challenged to envisage a profession with unlimited potential. The question 'Where would you like to see radiotherapy going to in the future?' was posed. The design phase followed, with participants asked to create the social architecture of the profession and share qualities and behaviours that would enable them to become a whole person within a radiotherapy context. They were asked 'What is needed to reach that?' In the final, delivery phase participants were asked to develop ways in which the new qualities and behaviours could be implemented in the clinical radiotherapy setting. Participants were asked 'What can we do to achieve that?'

During the interviews the researcher bracketed preconceived ideas and assumed a neutral position in order to avoid bias in the research (Burns & Grove 2005:55). Descriptive and reflective field notes were compiled during and after each focus group interview and were used to describe group dynamics and possible themes that emerged (Creswell 2003:189).

Data analysis

Data were analysed by means of open coding as described by Creswell (2003:191). First the data were organised and prepared for analysis by transcribing the interviews and typing up field notes. The data were then read in order to obtain a general sense of the data and their meaning. The data were coded by categorising them and labelling categories and themes with a descriptive term. The raw data were sent to an independent de-coder (Creswell 2003:196), and a consensus meeting was held between the researcher and independent de-coder (an experienced qualitative researcher) to discuss themes and categories identified. These were shared with the participants in order to verify that they reflected their views.

Ethical considerations

Ethical permission to undertake the research was granted by the Academic Ethics Committee of the Faculty of Health Sciences at the University of Johannesburg and the Human Research Ethics Committee of the University of the Witwatersrand. The ethical principles of respect for autonomy, non-maleficence, beneficence and justice were adhered to throughout the research process (Dhai & McQuoid-Mason 2011:43–44). The participants' autonomy was respected by inviting participation and obtaining written consent from each participant. At no time were participants identified and they were free to withdraw from the research at any time without penalty. Benefits for participants included being given an opportunity to tell their stories in a positive, supportive environment in order to promote positive change within the Radiotherapy Department.

Trustworthiness

Lincoln and Guba's model was used to ensure trustworthiness in the research (Lincoln & Guba 1985:290), using prolonged engagement, triangulation and peer examination of the findings. The researcher is herself a therapy radiographer and has prolonged and varied field experience in radiotherapy, including working in the provincial and private hospital setting in South Africa and in the National Health Service in the United Kingdom. The participants were all familiar with the researcher, who had been actively involved in training students at the hospital where they were employed.

Triangulation of data was performed by combining the interview data with those collected by the researcher using descriptive and reflective field notes during the interview process (Creswell 2003:196). The findings of the research were discussed with the research supervisors, who have experience in qualitative research techniques (Krefting 1991:12). Applicability of the results was assured by applying strategies of transferability. The researcher provided a clear description of the participants and a dense description of the results with supporting direct quotations from participants.

Dependability strategies employed were describing in detail the methods used to gather and analyse data in order to ensure that the research could be repeated in another context (Krefting 1991:14). Neutrality was ensured by confirmability. A chain of evidence of the whole research procedure was provided (Lincoln & Guba 1985:290). The researcher bracketed preconceived ideas at the start of the interview process and ensured that possible researcher biases were reflected upon when writing field notes at the end of each interview session.

Discussion of results

Three themes were identified: life-giving forces that promote personal and professional engagement resulting in a sense of purpose; professional stagnation; and facilitating change through harnessing positive energy and commitment for change.

Life-giving forces that promote personal and professional engagement resulting in a sense of purpose

Anecdotal accounts revealed a deep need for recognition and appreciation. As radiotherapy requires teamwork, supportive professional relationships were highly valued. Developing relationships with patients was stressed as being central to giving therapy radiographers a sense of purpose. Appreciation from patients was expressed by participants through recollections such as the following:

'So ja, recently I started working and last week I felt good because you know you back into people appreciating you for what you do. You know that respect that you get from your patients. Not necessary the respect but the gist of them saying "thank you for helping us". It makes one feel good you know, especially if you've been off for some time, then you find that you have a purpose in life.'

(Lawrence, Heather, focus group interview 2, November 2009) and

'When they come to you and say "Thank you for the wonderful work", it makes you feel you are doing something good.'

(Lawrence, Heather, focus group interview 2, November 2009)

Participants reported how knowing that they were helping somebody made them feel fulfilled and gave them a sense of purpose. One expressed this by saying:

'I think it is a good career, especially when you are working with cancer patients because when you are helping a cancer patient you feel fulfilled. Like if a patient comes and ... how can I put it ... like he's very, very sick, and then you help that person and you see that person recovering, you feel fulfilled.'

(Lawrence, Heather, focus group interview 2, November 2009)

Another participant added:

'And it was a breast cancer patient and we were treating mets [metastasis] to the spine and after some time, I think two or three weeks later, the patient actually walked because we were pre-empting cold compression. And that was ... the feeling was pretty good. It made me feel I'm doing the right stuff.'

(Lawrence, Heather, focus group interview 2, November 2009)

The importance of supportive professional relationships became apparent in statements such as:

'Even now, I was working with X so I just felt like really appreciated. But it really has to do with the other person you are working with. If you are both dedicated and you love what you are doing.'

(Lawrence, Heather, focus group interview 2, November 2009)

The need to develop close relationships with patients was a sentiment expressed by participants as vital to professional fulfilment, eloquently expressed by one as:

'... and some of those patients, they really touched me. They were like my mothers, my sisters, my brother to me. So I started feeling like they are my family too.'

(Lawrence, Heather, focus group interview 2, November 2009)

Another participant added to this by saying:

'What I want to say now is like when you come into contact with the patients, that feeling. You feel very, very good because compared to those that diagnose the patients, X-ray patients and you don't see that patient anymore, but we see the patient every day.'

(Lawrence, Heather, focus group interview 2, November 2009)

Bolderston, Lewis and Chai (2010:201–202) identified a need for a human connection as an overarching theme in their recent research exploring the concept of caring amongst British therapy radiographers. The therapists in that study described a reciprocal relationship with the patient, since the care that they gave to the patients was ultimately reciprocated with patient starting to care for the therapy radiographer. The therapy radiographers in that study also expressed that they chose radiation therapy as a career so that they could help people. Caring was also found to be part of the therapy radiographers' professional identity – and part of that identity was caring for each other as members of a team.

Rutter and Lovegrove (2008:140) found that lack of time spent with a patient contributes to occupational stress levels amongst therapy radiographers, but that social support from colleagues seemed to buffer the perceived stress levels. Akroyed, Legg, Jackowski and Adams (2009:119) stress that team-building initiatives help to improve levels of organisational commitment amongst therapy radiographers.

Professional stagnation

Participants saw little opportunity for professional growth and saw themselves as being stuck professionally. Interpersonal conflicts and perceived lack of support from management further hampered opportunities for growth and development. Participants described their perception of a lack of professional growth within the profession with comments such as:

'To me, when I look in terms of growth, I think the therapy is not growing, or radiography in general. Especially when I compare it to other things, like nursing. If you look at nursing, I think they are growing and they are expanding. Where with us, you reach a point where you are saturated, like you can't go further. Like myself, when I look at myself, I'm saturated. Like I don't want to learn any other things like ... I can't say there is no interest, but you are saturated. Like you look at nursing for example, and you look at the research that has been done, you will find a lot of articles, but in radiography you don't find anything. We are not growing."

(Lawrence, Heather, focus group interview 2, November 2009)

Another participant added:

'Because with the nurses I understand they can even move to SANCA [South African National Council on Alcoholism and Drug Dependence] you know, lots of doors open for the nurses, whereas with radiography we are just stuck. It's us, the department and the patient. There's nowhere we can move to, even the institutions like UJ [University of Johannesburg], it's not easy to get in there as a lecturer."

(Lawrence, Heather, focus group interview 2, November 2009)

Probst and Griffiths (2009:151) describe therapy radiographers in the UK as finding the work monotonous and repetitive, with many not truly prepared for what working as a therapy radiographer would involve. Limited opportunities for career development left UK therapy radiographers feeling as if they had reached a professional plateau as they had limited opportunities to develop new skills. Akroyed *et al.* (2009:119) showed that encouraging opportunities for skills development was crucial to improving job commitment amongst therapy radiographers.

A devalued sense of self was evident in numerous participant comments, such as:

Ja because right now I am just a radiotherapist (laughing).

(Lawrence, Heather, focus group interview 3, January 2010)

Furthermore, they expressed a need to be seen, with comments such as:

Well, I just want that this profession should be recognised more. People don't know what we do, you know. I don't think we get enough exposure.

(Lawrence, Heather, focus group interview 4, January 2010 10)

This supports Sim and Radloff (2009:204), who cite a low public profile and a lack of recognition from health care professionals as contributing to low-self-esteem evident amongst Australian radiographers.

Conflict within the radiotherapy team was expressed by one participant as follow:

'But it's sad from when you come in, especially this department, when you come in, the first thing people will tell you is that "so and so, don't trust so and so, don't do this". And you get worried and say "how did these people survive, because none of them seems to be coming with anything?". I don't know if they were as bad as they were to me. To me there was not a single one of them who gave me something positive. Everything was just "you are not going to survive".'

(Lawrence, Heather, focus group interview 3, January 2010)

Poor support from management was seen as an additional limiting factor:

'I think there is a lack of communication between the management and the staff. Because I think the management, sometimes they just implement things in the department without consulting the staff members. And then the other thing is like things are not transparent in our department. If they can maybe make things transparent so that everyone can have an access to those things, I think that will help us as radiotherapists.'

(Lawrence, Heather, focus group interview 2, November 2009)

Dissatisfaction with management has been widely documented in radiography literature. Cox, Halkett, Anderson and Heard (2010:34) found that management and staff issues were ranked as being the third most important area for further research by Australian radiographers. Makanjee *et al.* (2006:122) found that South African radiographers in management positions failed to accurately and adequately communicate decisions to staff, and felt that management procedures would need to be reviewed in order to retain radiographers. Akroyed *et al.* (2009:119) suggest that managers who exhibit transformational leadership styles are more likely to instil higher levels of organisational commitment amongst staff.

Facilitating change through harnessing positive energy and commitment for change

The overarching theme throughout the interview process was that of a group of professionals desperately clinging to the positive aspects of the profession, and an energetic workforce waiting for some guidance to break through perceived barriers to take the profession forward to culminate in professional and personal fulfilment. Interestingly, participants realised that change needed to start with the therapy radiographers themselves, evident in quotes such as this:

'It has to start with us internally, having respect for our own profession before we can expect other people to have respect for our profession.'

(Lawrence, Heather, focus group interview 3, January 2010)

Similarly, another participant stressed:

'I think more than anything we as radiotherapists, we need to work on ourselves because when these kids – sorry to call them kids – when they come from high school, I mean they don't know what is this course all about. And they watch us, so they learn from us. So if there is like any bad habits, they will pick it up from us, you know.'

(Lawrence, Heather, focus group interview 2, November 2009)

Participants also expressed a desire to see more research by South African therapy radiographers and saw further education as crucial to achieving this aim: 'So what I would like to see in future is more of the articles being published here in South Africa. And then I would also like to see more radiographers studying further.'

(Lawrence, Heather, focus group interview 2, November 2009)

A deep desire to take on additional responsibility was also voiced by many participants, evident in the following quote:

'So I feel personally that we want to be like a whole radiographer of who can have, who is given more responsibility. Not approval is given to this one and to that one. You'll never know the right thing to do if you are not given the chance to do it.'

(Lawrence, Heather, focus group interview 3, January 2010)

It is encouraging to hear a desire from therapy radiographers to take on additional responsibility in order to drive the profession forward. Internationally radiography has seen a large drive towards role extension in recent years, with many authors reporting success stories of radiographers assuming additional responsibilities (Piper, Buscall & Thomas 2010:139; Omar, Burgess, Tucker, Whelehan & Ramirez 2010:107; England, Best & Friend 2010:434). However, current literature seems to indicate that role extension for radiographers has not met with as much success as initially hoped, with considerable resistance coming from radiographers themselves (Dempsey & Burr 2009:143; Ford 2010:6; Yielder & Davis 2009:348; Paterson 2009:2).

Dempsy and Burr (2009:143) argue that Australian radiographers have relatively poor professional autonomy and great difficulty in accepting responsibility. The reason most often given for this was a lack of confidence in the clinical decision-making ability of the radiographers by the radiographers themselves. Sim and Radloff (2009:205) argue that radiographers lack lifelong learning attributes as the profession is protocol-driven, often resulting in practitioners being 'followers' rather than 'thinkers'. They describe radiography as having a culture of conformity which discourages reflection and critical thinking, therefore stunting professional development. Yielder and Davis (2009:347) state that radiography is an emerging profession that is struggling to meet the criteria for a profession largely because its professional autonomy is still dominated by medicine and an over-reliance on knowledge generated by other disciplines.

Developing close personal relationships with colleagues was seen by participants as being important, since teamwork is vital in a radiotherapy setting. Close interpersonal relationships were also seen as necessary in order to help individuals cope in a stressful oncology setting:

'... teamwork and communication. There is no way that you can do your job without the two.'

(Lawrence, Heather, focus group interview 2, November 2009)

'I think what is more important is support and understanding of each other. Like you said we must understand that we are human first before we are therapists. Fine, therapy is our profession and we like it but if we can understand the human side to that, people that we are working with, they are not just workers, they are people and they have got families and friends and boyfriends and children and things like that.'

(Lawrence, Heather, focus group interview 3, January 2010)

The importance of teamwork and close personal relationships with colleagues has been widely documented in radiography literature. Rutter and Lovegrove (2008:141) reported that social support from colleagues buffered the effects of stress amongst UK radiographers. Akroyed *et al.* (2009:119) concluded that a supportive working environment increased organisational commitment amongst therapy radiographers. More recently Bolderston *et al.* (2010:203) showed how important teamwork and feeling cared for by colleagues was in a study amongst Canadian therapy radiographers.

Limitations of the study

The focus of the research was therapy radiographers in a large academic hospital. The research was therefore contextual in nature. It would be valuable to interview therapy radiographers across South Africa to determine whether the themes identified are repeated in other settings. Furthermore, the impact of variables such as gender, qualification and age of the participants were not explored in the current study and could be investigated in future.

Recommendations

A passion for radiation therapy and strong commitment to patient care was a common underlying theme during the interviews. Therapy radiographers need to harness this positive energy and commitment for change to turn the despair back into enthusiasm. The therapy radiographers that participated in this research eloquently expressed that in order to shape a new future for radiotherapy, an extended knowledge base, effective interpersonal skills and changing attitudes within themselves for the better would be paramount to the success of the journey.

South African therapy radiographers therefore need to follow the lead taken by radiographers in developed countries and drive role-extension forward. Extending the knowledge base required for role-extension to become a reality will need cooperation from higher education institutions, as is currently the case in countries such as the UK (Eddy 2008:30). Developing new skills has been identified in the literature as an essential ingredient to improving job satisfaction amongst therapy radiographers (Probst & Griffiths 2009:151).

Developing effective interpersonal skills is vital in a profession such as radiotherapy, where teamwork is critical and interdisciplinary communication paramount (Bolderston *et al.* 2010:203). Improving interpersonal skills will help therapy radiographers to improve their interpersonal effectiveness, and will assist them in actualising their true potential (Johnson 2006:5). A call needs to be made to higher education institutions to equip students with the interpersonal skills that they lack before completion of their undergraduate studies.

Changing attitudes will depend on therapy radiographers to 'letting - go of old practices and embracing the new' (Colyer 2010:4). Therapy radiographers will need to reconceptualise professional roles and find a new focus that will move the profession forward (Yielder & Davis 2009:349). Reflective practice is long overdue in daily radiotherapy activities, and has been shown to add value to undergraduates in the UK (Hamilton & Druva 2010:341); it may be an invaluable mechanism through which therapy radiographers can bring about change in professional behaviour.

Finally, the concept of finding professional fulfilment needs to be developed further. One way in which this could be achieved is to explore the concept of 'wholeness' within a therapy radiography concept. Wholeness can be defined as the process of becoming an intellectually, emotionally, spiritually and physically whole person (Meyer 1989:116). Embedded in this definition is the understanding that one cannot separate the person from their environment (Cowling 2000:17). The results of this research showed that therapy radiographers are willing and are committed to the profession of radiotherapy – and could find wholeness if the positive energy expressed by the participants was harnessed.

Conclusion

This research aimed to explore and describe the process of being a therapy radiographer by means of AI focus group interviews. The results showed that therapy radiographers are committed to patient care and find fulfilment from developing close personal relationships with patients and colleagues. Consistent with the literature, the therapy radiographers in this study are experiencing a sense of professional stagnation but could envisage a dream for the profession which includes taking on additional responsibilities and actively engaging in research. The therapy radiographers in this study are willing and committed to the profession of radiotherapy, and could find professional fulfilment and wholeness if the positive energy which they expressed was harnessed.

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Competing interests

The authors declare that they have no financial or personal relationship(s) which may have inappropriately influenced them in writing this paper.

Author contributions

The article was prepared by H.L. with the guidance and supervision of M.P. and C.M.

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