



Being a newly qualified diagnostic radiographer: Learning to fly in the face of reality



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ABSTRACT

Introduction: The phenomenon of role transition has been investigated by a range of differing professions over a range of time and utilising a range of different methodologies. It is acknowledged by all studies that the period of transition from student to practitioner is a challenging and at times a stressful experience, often culminating in the newly qualified practitioners experiencing the reality shock of practice. This paper explores one of the key subthemes 'reality hits' which was identified during a wider PhD study Being and Becoming a Diagnostic Radiographer.

Methods: A longitudinal study was utilised employing an interpretive phenomenological methodology, collating data from nine participants during their first year as a newly qualified diagnostic radiographer. Each participant was interviewed at three months, six months and twelve months.

Results: Six main themes were identified. This paper explores the subtheme 'reality hits' which strongly featured in the three and six month interviews.

Conclusion: Eight of the nine participants found the first three to six months a stressful and emotional time. The experience of the graduates during this time raises issues which need to be used to inform future curriculum development, practice placement models and support strategies.

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Introduction

This paper shares a selection of data from a PhD study, which explored the process of being and becoming a diagnostic radiographer in which 'reality hits' emerged as an important subtheme within the larger theme of needing support in the first three months of transition.

Meeting the rising demand for care remains a key priority for the NHS as the UK population is increasing; people are living longer and have to manage long-term conditions and a combination of co-morbidities. The challenges now faced by healthcare professionals are multidimensional and complex requiring a very different workforce and service than delivered in previous years.¹

In response to social, economic and political influences the diagnostic radiography profession is undergoing significant change with for example, increases in service demands and has resulted in

requirement for graduates to possess a much wider range of skills.² The changing role of the radiographer has also been as a consequence of fast evolving technology and the subsequent demand for radiography services.³ The setting of targets and new ways of working consistently challenge the resilience and commitment of radiographers.⁴ More specifically the work has become more technically challenging and the underpinning knowledge required more demanding. Due to the increasing role that diagnostic imaging now plays in many patient care pathways, a wider range of procedures are undertaken in greater quantities and this brings with it more complex patient cases. Consequently, it has been suggested that radiography is a 'profession under pressure'.⁵

Literature review

The phenomenon of role transition has been investigated by a range of differing professions over a range of time and utilising a range of different methodologies.^{2,6–13} It is acknowledged by all studies that the period of transition from student to practitioner is a challenging and at times stressful experience.

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Decker, investigated the lived experience of newly qualified radiographers between the years of 1950–1985 using oral history.² The narrative data provided with common trends across the decades and it was identified that '*being a newly qualified radiographer could be a very emotional and anxious phase*'.² A general expectation of '*get on with it*' was suggested as the norm within the profession, which also reinforces the findings of two other studies exploring role transition and the contextual influences.^{2,5,14} Participants described their feelings and emotions at this time as '*scary, terrifying, daunting and strange*'.²

Fenwick et al. explored the experiences of newly qualified midwives during transition by interviewing sixteen graduates.¹² In using the metaphor of '*the pond*' to represent the work environment, other metaphors were used to describe the themes identified as part of the analysis. These were the '*life-raft*' to represent midwife-to-midwife relationships, '*swimming*' to represent positive interactions with colleagues and a supportive environment and '*sinking*' to describe the effect of poor relationships with midwives and a difficult working environment.¹² Participants described their working environment as very structured, being governed by rules, routines and being very task focussed. The general feeling was that the provision of care was not centred towards the mother and her family but rather on the system. This has direct application to the working environment of a diagnostic radiographer and the study by Strudwick et al. examined this further concluding that radiographers often choose to concentrate their efforts on being task focussed, managing the time pressures and working with efficiency.¹⁵

In the settling in period it appears that the new graduates quickly noticed the hierarchy within the environment, noting the obvious '*pecking order*'.¹² It seems that they felt outsiders, almost visiting their workplace, which they felt belonged to the experienced midwives. During this time, the newly qualified midwives felt under pressure to fit in and prove themselves, often being tasked with difficult cases to purposefully test them out. This toughening up period was a common experience across the participants and not isolated to this one study. This links directly to Lave and Wenger's concept of Communities of Practice (CoP) where it is suggested that the graduates are seen as newcomers and thereby sit on the periphery of an already established group.¹⁶ It is then through a process of watching, learning and developing that, they become integrated into the group. The process of this situated learning will be influenced by the culture of the community of practice and professional identity is formed by the interaction that occurs within and between CoP.¹⁶

The study by Naylor et al. explored the transition from student to practitioner in diagnostic imaging by investigating the expectations and experiences of newly qualified radiographers.¹³ A focus group was utilised in the initial stages of this study using four students prior to graduation to explore students' expectations pre-employment. These data were then utilised to develop themes from which the semi-structured interview questions were designed. Eight students were selected for the longitudinal part of the study and were interviewed just before graduation and afterwards at three, six and twelve months. Using Interpretative Phenomenological Analysis (IPA) four super-ordinate themes were generated; experience, fitting in, identity and supporting the transition. In discussion of the findings, it was concluded that the period of transition remains stressful but also exciting. However, there was no evidence to suggest that any of the participants experienced '*reality shock*'.¹⁷

As a result of her study, Decker proposed that further research be conducted into the experience of newly qualified radiographers and this was reinforced further by Naylor et al. who recommended focussing on participants who are employed in different departments to where they were placed as students.^{2,13}

Methodology

This study explored the experience of transition from student to practitioner in diagnostic radiography and in particular focused on being and becoming a radiographer. A longitudinal, qualitative prospective study was utilised adopting an interpretive phenomenological methodology.¹⁸ Phenomenology is often referred to as philosophy, which has been in existence since before the First World War and is defined as the study of structures of experience, or consciousness.¹⁹ Phenomenology as a branch of qualitative research sits firmly in the subjective paradigm of ontology and in the interpretivist paradigm of epistemology, the founders believing that not everything can be explained by a scientific method and that there is no such thing as an objective truth.²⁰ Based within the humanistic paradigm and embedded in qualitative research, its purpose is to describe '*how things are experienced first-hand by those involved*'.²¹

Interpretive phenomenology was chosen as the suitable methodology for this study since it focuses on human experience and the subjective experience of a phenomenon that is the way things appear to us through our experience of them.²² In this case, it explored the participants' perception of the world of diagnostic radiography and its personal meaning to each of them.²³ Rich descriptions from the participants are shared and followed by some interpretation therefore allowing the discovery of the ontological experience of each participant as championed by Heidegger.²⁴

Ethical approval was gained from the University Ethics Committee from the University where the PhD was being undertaken and from the host university from which the participants were selected.

A combination of purposive and criterion sampling was adopted for this study, allowing for the recruitment and selection of nine participants.²⁵ This approach allowed the retrieval of rich and meaningful data allowing the researcher to take an insider's perspective due to the prior knowledge and experience of radiography and knowing the participants.²⁶ Any students interested in taking part in the study were asked to email a named teaching colleague from the School of Nursing and Midwifery (the gatekeeper) to express their intention to take part in the study. The gatekeeper kept each radiography student's details confidential until such a time that all assessment had been undertaken and the students' marks had been ratified. This was to ensure that the students did not feel coerced to take part in the study. The participant inclusion criteria were; students who graduated with a BSc (Hons) Diagnostic Radiography degree from the HEI in June 2013 and students who gained employment in a NHS Hospital Trust that was not their placement site during their degree course. The exclusion criterion was students who gained employment in a NHS Hospital Trust for a period of less than 1 year.

In line with other phenomenological studies, the data were collected in the form of interviews to allow the researcher insight into the participants' understanding and experiences of the phenomenon.²⁷ This form of data collection allows the exploration of complex and subtle phenomena and provides insight into opinions, feeling and experiences.²¹ Pseudonyms have been used throughout when presenting the data to protect the anonymity of the participants.

Three interviews were undertaken with each participant; at three months, six months and twelve months post qualification. These time intervals were chosen for the following reasons:

- The first three months as a new practitioner has been pinpointed as a crucial time as they are required to '*hit the floor running*' and to adapt quickly to a new, dynamic working environment.² It is therefore essential that this initial experience and the associated feelings were captured at this time.

- A study by Smith and Pilling found that there was an obvious drop-off in participation of their allied health programme to support the transition from student to professional at the six month period.²⁸ It is for this reason that an interview was undertaken at six months to explore any changes in experience and associated feelings.
- The twelve month interview was chosen for two reasons. The first was to enable the practitioners to reflect on their experience over the whole of their first year as a newly qualified radiographer and thus identify positive and challenging experiences and feelings. The second reason was to use this interview as a way of looking forward and to bring closure to the relationship between the participant, the research and the researcher.

Twenty seven semi-structured interviews were undertaken, all were audio recorded, allowing a permanent record of the interview to be kept for the length of the study, enabling the researcher to revisit the data as many times as necessary in order to analyse the data.²¹ In order to maximise the effectiveness of the interviews as the primary data collection method, two associated data collection tools were used at two different time intervals in order to complement and inform the semi-structured interviews. These were a peaks and troughs graph adapted by Bourner et al. and a theme board.^{29,30} A theme board consists of a selection of images, which have been chosen by the participant and in this study represented the journey over their first twelve months by capturing their experience, thoughts and emotions.³⁰ The peaks and trough graph was used by the participants to record their experiences and feelings in the first three months in post and was utilised by the researcher to guide the questions for the initial three month interview. The theme board was completed by the participants and brought to the final interview at the twelve month stage, forming the basis for the themes discussed at this interview.

Trustworthiness is not inherent in research but relies on a sound methodology and rigorous data analysis, ensuring that its findings represent the participants' experiences as closely as possible.³¹ Lincoln and Guba divide 'trustworthiness' into four aspects; credibility, transferability, dependability and confirmability.³² In addressing the credibility aspect, the researcher's initial interpretation of the three month interviews was checked with each participant at the beginning of the six month interview.

All interviews were transcribed and analysed using the process of the thematic analysis framework devised by Braun and Clarke.³³ Using this framework, each interview was analysed and themes identified. The themes were then compared across a range of data sets to allow comparisons to be made and from this, a thematic map was developed. This allowed an in-depth analysis of each individual experience and allowed common themes to be drawn from the data, allowing insight into the phenomenon being explored. Needing support was identified as a key theme early on in the transition period.

Results and discussion

'Reality hits' featured strongly in the three month interviews and was reflected on in some of the theme boards at the twelve month stage. The main themes can be seen in Fig. 1, and these have been provided to contextualise the environment to which the graduates enter and how it made them feel. 'Reality hits' is a sub-theme of the main theme 'needing support.'

The opening question of the three month interview asked the participants to describe this initial period and it was evident by the responses that the graduates had found this period of time to be challenging. The majority of the responses contained a range of



Figure 1. The main themes identified across the transition journey.

analogies, which attempted to describe the array of emotions that had been experienced during this time.

'... You can leave university and you can do the job. But, then once you are qualified, you need to incorporate everything you've learnt, and learn all these new protocols and just become the radiographer. It's just sort of – what's the best way to put it – it's like they train us up like a little bird, then they push us off the edge of the cliff and say, "GO!" That's a bit what it's like. It's a bit of a strange analogy, but that's the best way to put it.'

(Adam, 3 months)

Adam seemed to be feeling overwhelmed by the amount he still has to learn in his new environment and appears to be saying here that there is an expectation that now he is qualified he should be able to perform to the required level. The analogy of the bird standing at the edge of the cliff infers the need for the courage to jump and hope that he has the skills to fly (in this case perform as expected in his role) without the safety net previously provided during his degree programme. This use of an analogy correlates with the work of Fenwick et al. who described the work environment of newly qualified midwives as 'a pond' and referred to the challenges faced by them as learning 'to swim' and not 'to sink'.¹² Both of these analogies give a real sense of the need to fight for survival in these early days and the rawness of the emotional feelings that go with this. The feeling of being 'thrown in at the deep end' at the beginning was also shared by James:

'Well I would say it's been an absolute whirlwind of ups and downs and it's been very exciting but [...] you certainly are sort of thrown in at the deep end [...] from my experience I mean within a couple of weeks, within my first day it was literally like right this is the kit, use it, go and X-ray ...'

(James, 3 months)

James is quick to share the fact that he had many ups and downs during this time and his use of a 'whirlwind' suggests that it has been a rapid learning curve which has left him feeling windswept, maybe even exhausted but also excited, exhilarated. The emotion of excitement was also identified in the study by Naylor et al. whose findings suggested that the period of transition for newly qualified radiographers was stressful but also exciting.¹³



Figure 2. Silhouette of a rabbit in headlights.

At her twelve month interview, Jane referred to a picture which was a silhouette of a rabbit in front of a bright set of lights. This can be seen in Fig. 2.

'I said in our first one (interview) rabbit in the headlights ... and I don't think I could explain it any better than that when you first start it is. As a student you're a rabbit underground like we just said you don't really pay any attention to the stuff going on but once you've qualified you put your head up and there's everything else like it blinds you and it's like oh my God and it's that initial shock.'

(Jane, 12 months)

A powerful image, which provides a thought-provoking analogy, which clearly illustrates how Jane was feeling at this time. The blinding light is a clear metaphor here for the sudden realisation of the steep learning curve associated with the transition period of newly qualified radiographers was also found in the work by Decker.²

Many of the other participants described this first three months with phrases such as *'absolutely terrifying'*, *'absolutely petrifying'*, *'quite a roller-coaster'*, *'a big learning curve'*, and *'stressful'*. This range of intense emotions were felt by almost all of the participants at this early stage highlighting the first three months as a very challenging but frightening time. These findings correlate with that of Decker whose participants used similar words to describe their emotional experience of transition.²

Fig. 3 is a selection of images taken from the twelve month theme boards to illustrate this early experience.

The emotional experience of transition is heightened during the first three months in particular as the participants' experience what is known as *'reality shock'*.¹⁷ Their feelings at this time seemed to hit hard and it questions whether there is a need to prepare students for the experience of role transition itself to help them to cope with their emotions at this time and this is argued strongly by Boychuk

Duchscher in her study exploring the transition of newly qualified nurses.¹⁰

The expectation that the new graduates should just *'get on with it'* placed additional pressure on them in an unfamiliar environment.² This was evidenced by James, *'it was literally like right this is the kit, use it, go and X-ray'* and that is how he was introduced to the department and quickly got on with it. This has certainly been the experience of many newly qualified practitioners where a number of studies have identified that there is a general expectation that they should hit the ground running.^{7,8,11,12}

In the study by Naylor et al., there was however little evidence to suggest that the newly qualified radiographers experienced *'reality shock'* and there may have been several reasons why there is a difference between the findings of this study and the one undertaken by Naylor et al.^{13,17} Firstly, all of the participants of this study entered a completely new diagnostic imaging department upon graduation whereas in the study by Naylor et al., the students had all gained employment in a hospital in which they had been placed as a student.¹³ Secondly, all the participants of this study stay at the same hospital for the duration of their three year degree programme and are therefore unaccustomed to changing their working environment and will have become socialised into the culture of that particular department.¹⁵ This in particular, may have been exacerbated by the university's current structure, which provides practice educator support at each placement site. This is highlighted by Adam's quotation early in the chapter when he says *'they train us up like a little bird, then they push us off the edge of the cliff and say, "GO!"'*. Although the practice educator model is highly valued by both staff and the students at the host HEI it may be that this role overprotects the students from the reality of the role and therefore graduates are unprepared for the challenges ahead.

The intensity of emotions reduced throughout the twelve months and this can be explored further by referring to the work of Lave and Wenger on CoP.¹⁶ In the first few months the students will have very much been regarded as first *'outsiders'* and then *'beginners'*. As they begin to *'learn the ropes'* and begin to participate they move towards the centre of the CoP thus becoming an accepted member of the community.¹⁶

Conclusion and implications for practice

The findings of this study found that eight of the nine participants experienced what has become known as *'reality shock'* and this was mainly due to the unfamiliar work environment and their lack of experience at dealing with changes to this.¹⁷ Although this lasted for a relatively short period of time (three–six months), it was a stressful period and emotions ran high at times, making it difficult for the graduates to fit in and *'hit the ground running.'* In the current climate where diagnostic imaging services are in demand and patient pathways are becoming more complex and challenging, it is essential that transition is effectively managed and supported, recognising not only professional but also personal



Figure 3. A selection of images taken from the participants theme boards.

anxieties. This is pertinent to both the academic and clinical setting where more groundwork could be undertaken to prepare graduates for the process of transition, perhaps with the use of alumni who could directly share their experiences through story telling with level six undergraduates prior to graduation.

In the host HEI where the study was undertaken, it raises the issue of students only being placed in one department throughout their degree programme. The evidence provided in this study would suggest that all HEIs should review their current placement models as part of ongoing curriculum development to enable students to experience different placement sites. In exposing students to more than one department during their degree course will better prepare them for the transition experience and allow them to develop the skills needed to cope with changes to their working environment and working within different cultures.

The existence of CoPs within the workplace was evident throughout my findings and goes some way to explain how the graduates had to navigate their way into the culture of their new environment and become part of the community.¹⁶ Undertaking this process seems to have been a major cause of anxiety in the first few months and therefore it would seem prudent that an understanding of this process and of the function of CoPs should be developed with the students at an undergraduate level to help them prepare for the experience of transition.¹⁶ This would also have benefits for the undergraduate students who have to fit into their practice placement environment. Developing students in this way alongside the clinical staff would underpin a culture that would better support students and graduates in this process.

The issue of support at this time is also worthy of mention and will be explored in depth in an additional paper. However, the experiences shared in this paper strongly suggest the need for the profession to consider providing robust support mechanisms for newly qualified radiographers during their first year of practice.

Conflict of interest statement

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