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Dementia and clinical interaction in frontline radiography: Mapping the practical experiences of junior clinicians in the UK

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Abstract

This paper reports findings from a study of the practical experiences of junior diagnostic radiographers in the UK when managing patients with dementia. Extended semi-structured interviews with six participants (mean experience in diagnostic radiography = 3.5 years) were analysed using Interpretative Phenomenological Analysis (IPA). Findings highlight that participants' recurrently-cited lack of confidence around their knowledge of dementia, and regular treatment of the condition as a 'generic' thing in practice, had sometimes damaged clinical interaction, particularly when the participant was feeling institutional time pressures. Education for new professionals was seen as lacking in both quantity and context-relevance, with implications for professional confidence and ethical practice. Carers and family members were viewed by participants as potentially positive and negative forces within an examination context, and technological advances in radiography were taken to be clinically advantageous, but also actively detrimental to the effective interpersonal care of their patients.

Keywords: clinical interactions; communication; dementia; diagnostic radiography; medical education; junior clinicians

Introduction

It has been axiomatic for some time in healthcare research that a rapidly ageing population, and a corollary growth in the numbers of individuals suffering from dementia, has been causing a progressive range of structural/distributional problems for many frontline public and private healthcare services (Iliffe, Wilcock, & Haworth, 2006; Kasteridis et al., 2016). Moreover, a number of social studies of professional work addressing those health services has recently emerged pertaining to the wide range of nuanced communicative challenges that can arise for practitioners of all specialisations, and all levels of experience, during face-to-face interaction with patients/clients with dementia (Manthorpe, 2016; Oppikofer & Geschwindner, 2014; Veselinova, 2014). Within this corpus, it is reported that junior practitioners of all orders are in a particular position of disadvantage (Baillie, Cox, & Merritt, 2012; Tullo, Young, & Lee, 2016), working with an ever-increasing number of patients with dementia, but without having yet accrued the levels of direct professional experience conventionally thought to be key to developing expertise' in clinical performance (Yielder, 2006).

It remains the case that studies of healthcare practice around dementia have, to date, overwhelmingly focused upon professional-client contexts where the dementia itself is the manifest reason for that interaction taking place at all; making diagnoses of dementia (Babu Sandilyan & Dening, 2015a; Garand, Lingler, Conner, & Dew, 2009), managing patients with dementia on hospital wards (Baillie et al., 2012; Baillie, Merritt, & Cox, 2012) or in residential care (Baker, Huxley, Dennis, Islam, & Russell, 2015; Talbot & Brewer, 2015), effecting community-based care for individuals with dementia (Manthorpe, 2016) and so forth. The literature addressing healthcare scenarios where the patient's dementia is not the salient reason for a given interaction remains less abundant. It is with respect to this matter that frontline medical imaging work, such as Computed Tomography (henceforth CT)

scanning and Plain Radiography (henceforth PR), presents a valuable case for investigation. Given the specific facility of the modalities at hand, and outside of Magnetic Resonance Imaging (MRI)¹, practically all frontline medical imaging professionals' experience of working with patients with dementia will relate to wholly contingent matters.

The importance of medical imaging research in advancing strategies for early and more specific diagnosis of dementia cannot be overstated (Kelly, Butler, Ciblis, & McNulty, 2016). It is clear, however, that no substantial literature has emerged to date relating to how a patient's dementia can impact upon everyday clinical practice and practitioners in the patient-facing medical imaging professions themselves. This is, perhaps, surprising. Interactional contexts in the medical imaging domains can differ greatly in terms of the conditions available for fostering professional-patient understanding than, for example, those in various fields of hospital and residential nursing, social work and even primary medicine (Babu Sandilyan & Denning, 2015a; Manthorpe, 2016; Oppikofer & Geschwindner, 2014; Tullo et al., 2016). The latter, whether or not directly related to dementia, (a) prospectively mandate multiple meetings that (b) help develop a degree of familiarisation with the individual and their case. The huge majority of interactions between any individual and a radiographer are, however, 'one-offs' wherein dementia is likely to be a footnote in a clinical report studied for the few available minutes before the (very expensive, and therefore time-pressured) practical procedure begins (Woods, Miller, & Sloane, 2016).

This paper, given the above, qualitatively focuses upon the experiences of a small sample of junior clinicians working in plain radiography in the UK, exploring their everyday work regarding patients with dementia. Through this order of investigation, research can

¹ Even then, a relatively small proportion of MRI investigations of individuals with dementia will directly relate to the dementia itself.

ideally highlight communicative issues relevant to the participants themselves in managing the concerns of time-pressured efficiency, ethical practice and patient satisfaction under ever-more difficult specific working circumstances (Jurgens, Clissett, Gladman, & Harwood, 2012; Nazarko, 2015; Woods et al., 2016). It is further contended that description of the specific, and often difficult, interactional matters with which these novice medical imaging professionals are faced can add nuance (by comparison and contrast) to the broader social scientific literature on the work of healthcare practitioners involved in the care of individuals with dementia (Manthorpe, 2016; Oppikofer & Geschwindner, 2014; Veselinova, 2013; Webb & Denning, 2016).

Notes on extant literature

Across two qualitative studies, with strong relevance for the core focus this paper, Baillie and colleagues articulate how varied practical concerns can impact upon the relationship between a student nurse and a patient with dementia (2012; 2012). It was found that the hospital environment, and the organisational culture therein, were often challenging for patients, and also prohibitive to nurses in providing the levels of time needed to understand what an individual with dementia might actually be asking *for* in a given circumstance. Moreover, the participating student nurses also regularly argued that their training had left them ill-equipped to effectively communicate with, and handle the emotional needs of, these patients.

In the broad field of medical communication around dementia, Livingston et al. (2014) and Tullo et al. (2016) have demonstrated that, where time can be formally found, getting to know the patient and building an interpersonal rapport can provide at the very least a grounding for effective communication. This was shown to be especially useful when the family members – or known objects (such as soft toys) or stimuli (such as music) - could also

be involved in the process to make the care environment more familiar, and thereby reduce patient agitation (Bidewell & Chang, 2011; Livingston et al., 2014; Veselinova, 2014). From this platform, techniques such as careful clarification of points and listening without interrupting could have much greater facility than without it (Baillie, Merritt et al., 2012).

This type of work finds many parallels with the more explicitly social scientific work of Babu Sandilyan and Dening (2015b), who stress a central point regularly overlooked in the ‘hard’ clinical literature that often directs policy; i.e. that the most ‘troublesome’ behaviours associated with some dementias *in situ* - not least abnormal vocalisation and even aggressive outbursts – might be understood as attempts by an individual robbed of many conventional communicative capacities to express (often) unmet needs (Tullo et al., 2016; Veselinova, 2013). Thus, actions such as ‘screaming, wailing, loud disruptive talking and mumbling’, for example, should not be sidelined by any healthcare professional as inevitable upshots of dementia itself (Kitwood, 1997). Rather, the patient’s physical and social environments should be examined to ensure that they are receiving sufficient and appropriate interpersonal interaction, and/or they are not being disturbed by the ambient level of lighting, noise or heat (Barton, Findlay, & Blake, 2005; Veselinova, 2014). Equally, it is critical to evaluate whether such challenging interactional behaviours are actually communications of otherwise unarticulated pain (Babu Sandilyan & Dening, 2015b; Baillie et al., 2012; Nazarko, 2015; Veselinova, 2013).

As such, and as reported in multiple studies, many of the core recommended criteria for successfully interacting with patients with dementia in many clinical encounters hang upon the practitioner having the communicative space and time to put aside their normative presumptions about how everyday communication *should* work, and instead finding person-centred models for working with specific individuals (Baker et al., 2015; Barton et al., 2005; Haberstroh, 2015; Tullo et al., 2016; Veselinova, 2014). Evidence outlines above, however,

that operating in this way takes significant case-by-case effort, and this can often work in opposition to organisational healthcare cultures that stress a manner of working efficiency borne of solid 'models' for standardised practice (Jurgens et al., 2012; Miller, 2013).

Moreover, in a radiographic encounter, time is often an even greater pressure than in hospital nursing or general residential care, and the opportunity to 'get to know' a patient is yet more limited (Woods et al., 2016).

Materials and Methods

All radiographic encounters between a clinician and a patient are multifaceted, personal and subject to a range of contextual contingencies; no situated communication of this order can be reliably pre-ordained, nor reliably anticipated (Miller, 2013). Interpretative Phenomenological Analysis (henceforth IPA) is optimally suited to recognise nuance, experience and innovation as they manifest in everyday accounts of practice developed by clinicians at-work (Brocki & Wearden, 2006). Although the majority of studies using IPA to explore clinical experience have, to date, focused primarily on the patient/client (Rhodes & Smith, 2010; Todd, Simpson, & Murray, 2010), the use of the method to illuminate the everyday skills and knowledge of healthcare professionals is becoming increasingly common (Woods et al., 2016).

Participants

Studies in IPA typically utilise small samples, enabling a specific focus on the nuances involved in the core matter of interest, and close-detail analysis of the connections between experience, cognition and action xx. Indeed, in some work on 'difficult' interaction, the single case-study approach has been advocated (Shinebourne & Smith, 2009). For the broader project from which the findings below are gleaned, with full institutional ethical approval

(ref: DC/SB 15/28) and informed consent from all participants, six junior clinicians working in direct digital radiography were interviewed. The sampling frame used was grounded in the requirement that each participant would have first-hand experience with dementia in radiographic contexts, with minimum experience set at one full year in clinical practice. The mean professional experience of the participants was 3.5 years. Conditions of ethical approval stipulate that no more detailed reporting on individual ages, genders and experience levels among participants can be given, on account of their potential identifiability within a restricted professional community when connected to the qualitative data presented below. Participants were recruited from hospitals in two NHS Trusts the North of England. This was, essentially, a theoretically-informed opportunity sampling method common to IPA studies (Brocki & Wearden, 2006), using departmental (but not personal) connections; i.e. extant professional connections provided access to individuals that could be accessed within a tight frame of time and ethical conditions.

Procedure

Data were collected via semi-structured interview schedules. All were conducted in person, and at a location of the participant's choosing. Key issues for discussion were posed as openly as possible, to enable participants to speak freely; prompts were used to encourage them to provide specific examples from their own professional lives, and reflect upon these:

- *Could you provide an overview of the main issues that you have experienced when working with patients who have dementia?*
- *Developing on this, can you describe any specific instances, good or bad, that you have experienced when working with patients who have dementia?*
- *How did you handle these issues; what worked and what didn't?*
- *Why do you think things worked out in the way they did?*

As required by institutional ethical mandate, all data were rendered anonymous during transcription, and all participants are allotted labels based on the order in which the interviews took place (i.e. 'R1, 'R2' etc.) when connected to any given quotation in the findings. The mean interview length was 40 minutes.

Analysis

IPA's standard approach to analysis (see Rhodes & Smith, 2010) was followed precisely. Preliminary textual themes were cross-linked into connecting (major subordinate) themes (N=12) describing particular issues, which in turn were focused into three global (superordinate) themes that were consistent across the full corpus of data, and fully encompassed matters raised by all participants.

Trustworthiness

Trustworthiness was scrutinised in line with the commonly-cited standards set out for qualitative health studies by Yardley (2000). The core validity of the emergent themes was enhanced through a process of triangular consensus validation (Patton, 1990). The authors, one junior radiographer, one experienced professional and academic radiographer, and one veteran medical researcher with no core background in professional radiography (thereby allowing for a range of potential interpretations of the given data) reviewed the analysis until a mutually satisfactory outcome was achieved. As a further measure on this front, as a 'credibility check' (Silverman, 2012), a preliminary analysis was disclosed to one of the original participants, who claimed full recognition of the issues therein. In order to maintain transparency and coherence (Yardley, 2000) all analysis below is presented with supporting qualitative data; there is no extensive summarising without evidence.

Results

Analysis revealed three overlapping superordinate themes relating to the experiences of the participants:

1. Confidence, experience and education.
2. Practical and technological constraints on effective practice.
3. Complexities of carer input.

Superordinate theme 1: Confidence, experience and education

The first of the superordinate themes has perhaps the greatest import regarding the relative novice status of the participant sample. Among a number of the participants, a clear concern emerged around the clarity of their own knowledge of what dementia actually *is*, and how to manage practical clinical situations where such knowledge becomes salient. Lacking extensive clinical experience, these participants' general perceptions of patients with dementia were generally coloured by negative assumptions around cognitive and/or emotional deficit, and the problems this would likely cause during the examination:

R1: *“Dementia patients aren't good at a lot of stuff...they get confused easily.”*

R2: *“...they're just scared and confused.”*

R4: *“[I]f the department is mad busy...then I would [expect] a dementia patient to be problematic, and it's going to take too much time.”*

As such, these participants maintained that they tended to approach pertinent clinical interactions with active trepidation, something they also understood to be professionally unhealthy. In these cases, a contemporary lack of formal education/training for radiographers in working with patients with dementia (both before and during their careers) was seen as a

significant factor in producing this difficulty. Moreover, effective education was also seen as a clear solution to ‘uneven’ practice within and between departments:

R3: *“I think more training would benefit [us all] around this area...we all [currently] have different techniques...”*

It was clear from the data, however, that there was not a simple and direct correspondence between lack of clinical experience in radiography itself and a lack of confidence in dementia-related radiographic encounters. One participant highlighted how, although they were aware of their own worries ahead of a dementia-related procedure, they had treated this self-awareness as an opportunity to improve their practice:

R3: *“[I]t doesn’t put me off, saying...I don’t want to do this. Showing willingness, that’s how you learn. So I’d be willing to do it because [a] dementia patient is the same as any other patient.”*

Although similarly describing an early-career assumption that dementia would be inherently problematic, **R5** cited how practical experience in a former professional ‘life’ had helped them better understand patients with dementia and thereby removed a great deal of anxiety in their current (radiographer) role:

“[H]aving worked in a nursing home changed [my approach] ...I’ve got more understanding of what the condition is.”

Even in this case, however, the value of better training and education for professionals was still foregrounded as essential for standardising practice among all clinical and - notably - non-clinical staff within a medical imaging department:

R5: *“...training [about dementia] would be perfect for not only radiographers but [also other] people who work in the department...”*

Superordinate theme 2: Practical constraints on effective practice

The anxieties of the junior clinicians interviewed, regarding how well they can manage patients with dementia, were frequently reported to have been exacerbated by the practical pressures of working in the modern NHS. Perhaps predictably, the most commonly addressed of these was the simple unavailability of sufficient time given total daily workload to address the nuances of the task:

R2: *“[I]t’s definitely hard because...for instance...a chest x-ray should only take 3-5 minutes, but I’ve found [with a patient with dementia] it can take 20-30 minutes.”*

Such matters could permeate activity prior to the formal examination itself. **R1** provides a specific example:

“[The patient] had a carrier bag with her and it was like she carried all her worldly belongings with her, and she wouldn’t let it go...I was just saying ‘Let it go for one minute while you put your gown on’... She [didn’t] want to put a gown on. It took 10 minutes just to get her changed.”

The particular stresses this places upon possibilities for effective communication were, thus, also a recurrent matter. For example:

R6: *“[I]t is very fast paced...It puts a lot of pressure on the patient and the member of staff actually dealing with the patient...the major one that [affects] communication is the time.”*

This need to rush was further reported to have made dementia-related clinical interactions yet more challenging, as it actively agitated the patients. In these circumstances, the radiographers trying to actively make time had paid significant dividends:

R3: *“[I have] personally experienced other people try and rush dementia patients, and I could see they were getting agitated because they were being rushed.”*

R4: *“I have walked into situations where they have really been trying to rush patients through and they’ve been getting more agitated and I’ve just kinda said ‘Let’s just slow down,’ and...it has made a massive difference.”*

Despite this core understanding, that better practice could be engendered through allocating more time, the constant imperative to ‘move it along’ was never far from the participants’ minds:

R6: *“...you’ve got a lot of people to get through, it’s very difficult to actually then be...able to deal with the patient [properly]. Because you’re constantly under pressure because of...all the patients that are sat outside.”*

Of particular import, with respect to diagnostic radiography itself, was the assertion by some participants that a lack of time to actively talk to patients with dementia (and, thus, learn from the experience) was not always a simple consequence of generalised NHS culture. Rather, the specific technologies of modern medical imaging were seen to have further facilitated a detachment between radiographer and patient. For example:

R1: *“This sort of rushing atmosphere I feel is being encouraged particularly [by new] systems. They are so much faster [now] and mean you can spend even less time talking to patients. I’ll give you an example, I usually chat to patients while waiting for the cassette reader, but [now] it is instant so you lose that period which I think is a negative especially with dementia patient, because they need that extra time.”*

Superordinate theme 3: Complexities of carer input

While the involvement of family members and other forms of carer in the medical imaging process might be seen as an obvious benefit, the experiences of the participants with regard to dementia-related cases reflected a rather more mixed picture, and one that could variably engender comfort or distress in the patient. In many incidences, the presence of caring others was identified as having been highly beneficial, chiefly as a familiar presence or a ‘translator’ of sorts. For example:

R3: *“[I brought them] into the room, asked them questions...so basically they can help communicate with the patient if the patient is more comfortable with them than us.”*

The participants also, however, reported a number of occasions where such a presence had been actively damaging to their ability to perform an effective examination.

R4: *“...the patient [played] up to the relative, so sometimes it’s better to remove the relative.”*

Indeed, experiences such as this had sometimes coloured a global view on the matter:

R6: *“You’re not guaranteed that the carer has a good relationship with that dementia patient, or can communicate with that dementia patient. So I tend to prefer the carer be rather behind the screen or outside the room when dealing with the dementia patient.”*

Although (and as noted above) while the junior clinicians interviewed were not fully confident in what was best practice regarding the management of patients with dementia, they were often secure in the notion that carer presence was a mixed blessing. Consequently, they often made a case for how they could best work with a patient without the interpersonally difficult variables added by significant others:

R4: *“I always prefer to work one -to-one especially with children or dementia patients. Obviously you do need help sometimes, but too many people in the room, too many noises going on; it’s all distracting and all can be confusing for them.”*

R6: *“I tend to work on it by myself, because I find if you have one or two people, the dementia patient can get panicky and confused.”*

Discussion

It is of some note that the assumptions described by most of the participants around the character of dementia were somewhat generic, notwithstanding their consistent use of the term “dementia patient.” Indeed, at no point did any of them voluntarily discriminate between different forms of the dementia, beyond noting differences in ‘early’ and ‘later’ stages. Absence of evidence should, of course, never be taken to constitute evidence of absence; as such, the character of this data does not necessarily demonstrate that any or all participants lacked formal factual understanding of different forms of dementia. What it does indicate, however, is that irrespective of the status of their academic knowledge of *what* dementia is, in any form, such nuance did not substantially inform the way they described their real-world practice. Consequently, managing a patient with dementia was largely conceptualised in terms of working with increasing levels of confusion, fear and communicative dysfunction as the dementia itself progressed. Although not totally incongruous with the broader clinical picture (Tullo et al., 2016), it does underscore how the (lack of) formal training recurrently cited by participants might have led to unconstructive *ad hoc* assumptions on how to communicate with a patient, or how to interpret their activities. As will be familiar to readers of the current journal, interpersonal actions and cognitive capacities line-up in different ways in different forms of dementia (Denning & Babu Sandilyan, 2015a; Kindell, Sage, Keady, & Wilkinson, 2013). To

treat any individual as if they have primary progressive aphasia (characteristic of Alzheimer's) in term of their ability to instantly respond to everyday questions is, prospectively, just as situationally and interpersonally damaging as treating every individual with vascular dementia - who may still show strong communicative capacities – in the same way (Kindell et al., 2013; Nazarko, 2015; Veselinova, 2014). If nothing else, this has potentially perilous implications for obtaining genuinely informed consent around any given pertinent radiographic procedure involving individuals with dementia (Haberstroh, 2015; Sherratt, Soteriou, & Evans, 2007).

Equally, among the participants, no explicit sense emerged that unusual behaviours might reflect a patient's own attempts to actively express discomfort or anything else (Veselinova, 2013). Rather, most accounts embodied a more 'traditional' way of thinking where it was taken that such behaviours were fundamentally upshots of the dementia itself (Desai, Schwartz, & Grossberg, 2012). For example, R1 expressed frustration at a patient's reluctance to let go of a carrier bag containing '*her worldly belongings*' on account of the time it was adding to preparing her for the examination. However, the presence of familiar objects has been shown to reduce a patient's agitation in unfamiliar situations (Livingston et al., 2014; Oppikofer & Geschwindner, 2014). Thus, a strong attachment to such objects (in this case) might alternatively be seen as a marker of a patient attempting to bring familiar elements into a new context which, in turn, makes even greater sense of her reluctance to be separated from them. Often drawing on Goffman's (1991) classic study *Asylums*, social scientific studies of medical practice have for over five decades documented the clinical problems that can arise from dismissing any superficially nonsensical action as inherently irrational, no matter what an individual's formal diagnosis might be (Miller, 2013; Silverman, 1997). However, and as further discussed below, there remains an inevitable tension for modern radiographic clinicians between making the space to understand the nuances of a

patient's actions, and the organisational culture of a medical imaging department (Woods et al., 2016).

With respect to the allied matter of clinical confidence, all of the radiographers interviewed maintained that they held, or at some point had held, negative assumptions around what to expect from managing a patient with dementia. For the majority, this still manifested in approaching radiographic scenarios with a potentially counter-productive anxiety (Baillie et al., 2012). Within the data collected, lack of confidence emerged from a general (second-hand) understanding of how difficult interacting with any individual with dementia could be, and also as a consequence of negative practical experience in which they had felt under-prepared by their formal education and subsequent (lack of) professional training (Baillie, Merritt et al., 2012; Tullo et al., 2016). In short, unproductive assumptions and a sense of *being* inexperienced or intellectually underprepared often gave rise to actual negative experiences; what we might term a self-fulfilling prophecy (Goffman, 1991; Miller, 2013). These negative experiences further propagated both negative assumptions and the very sense of being inexperienced or underprepared (Baillie et al., 2012). For some of the participants, thus, there was a form of regressive spiral at work in which each difficult experience of examining a patient with dementia felt like a step back in terms of confidence, rather than evidencing the classical narrative that progressive practical experience necessarily breeds constructive expertise (Yielder, 2006). This was further aggravated by the lack of time they felt they could accord any given patient. With the constant pressure of needing to move the examination along in the hothouse of modern medical practice, it was unclear to them how they might develop the skills and general confidence that any professional might seek (Baker et al., 2015; Het, Verkaik, Mistiaen, van Meijel, & Francke, 2015).

It is essential to note here, given the above, that a mechanical relationship between being an early-career radiographer, formal knowledge of dementia and active trepidation

when addressing patients with dementia did not always emerge. Firstly, one participant simply did not view a lack of relevant experience, or perceived training deficits, as natural enemies of effective clinical practice. Rather, while conceding personal anxieties around the matter, R3 maintained that they had nevertheless approached every examination as an opportunity to learn and develop. The specific personalities of medical professionals, as much as those of their patients, inform how clinical work can play-out in practice (Clack, Allen, Cooper, & Head, 2004). While, perhaps, an awkward variable to control for in wider statistical studies of barriers and facilitators in effective radiological practice around dementia, this is one we should not therefore overlook. The second exemption in this respect also speaks to prospective research. R5 drew attention to their experience in a former professional life (in care homes) which had helped attenuate anxiety about working one-on-one with patients with dementia, their own positive experiences of working alongside patients with dementia had put them on a different footing in terms of clinical confidence and therefore they did not actively frame any of their current clinical experiences as inherently negative.

This is important in several respects. Whether or not this experience provided R5 with a more technically thorough knowledge of dementia than other participants, it nonetheless boosted their confidence in approaching radiographic examinations. In short, the very perception of holding genuinely useful knowledge and/or experience around dementia was far more important in terms of the confidence with which the participants approached everyday practice than the objective specifics of their education. Furthermore, the request for better education and training was not only borne of a need to improve personal practice and professional self-confidence around dementia (Baker et al., 2015; Talbot & Brewer, 2015; Tullo et al., 2016). Concerns were voiced about uneven practice and understanding between clinical professionals in radiography, and among support staff and allied healthcare workers

within a department. In short, the need for everyone involved in the administrative, caring and direct radiographic processes to be 'on the same page' was viewed as integral in facilitating the best experience for the patient, and the strongest chance for the junior radiographer to perform to the best of their abilities.

In terms of practical, NHS-related issues emerging from the collected data, it was clear that pressures of time were a constant concern for participants, in terms of restrictions on their ability to provide the best possible clinical care, and on their capacity to learn from their experiences. Even though they generally appreciated the value of according a patient with dementia a greater amount of time than most, they also articulated a consistent pressure to remember the other patients 'sat outside'. This is, of course, a recurrent theme in contemporary healthcare literature around dementia and many other complex conditions, for practitioners of all levels, and has been for some time (Denning & Babu Sandilyan, 2015b; Miller, 2013; Tullo et al., 2016). However, the specific pressures in radiography were not always simply attributed to a broader culture, but also bound up in issues of physical infrastructure. As Woods, Miller and Sloane note, with regard to patient obesity, certain technologies can, in themselves, radicalise the interpersonal dimensions of the radiographic examination (2016). For example, where sufficiently high weight-sustaining tables are a feature of a medical imaging department, then challenging discussions about why a patient is having to be consistently re-imaged (on account of the hydraulics on an older table failing to function) are prospectively avoided. With respect to dementia, the data collected for this study actually indicate an inverse relationship between technological progress and optimal interaction with a patient. Here it was argued by some participants that, in the short time between their original training and their current practice, technical efficiency had advanced to the point whereby an opportunity to get to know patients, and thereby also learn from said interactions, had vanished.

Finally, the issue of having carers or family members present during an examination was of key concern to the participants - this explicitly relates to the communicative 'triad' around professionals, carers and the individual with dementia *in situ* described by Adams and Gardiner (2005). In this particular regard, participant experiences and broad perceptions of effective practice provided both convergences and contrasts with extant literature. It is relatively clear within recent allied healthcare research that carer/family presence is widely taken to be a positive, particularly in fields such as nursing and social work (Adams & Gardiner, 2005; Livingston et al., 2014; Veselinova, 2014).

Some participants in this study did, indeed, find that such a presence under certain circumstances could be productive in the examination in terms of providing a familiarity marker for the patients, or a translator of challenging communications. However, it was also reported that significant others could make the process much more difficult for both practitioner and patient. In some cases, this resulted from a direct recognition that those closest to the patients are not always inherently supportive, and can in fact cause the patient greater stress. This is an issue rarely (if ever) addressed in contemporary healthcare literature, although partially acknowledged within the slender work on the mental health of dementia carers themselves (Elkins & Weatherhead, 2014). The contexts of radiographic practice were also seen as a key issue; i.e. being in an unfamiliar room with machinery at work had provided enough potential confusion for the patient. Additional actors (no matter how familiar) were generally viewed to have only added to that confusion, and had thereby made the situation worse. This had encouraged the participants to often work *in situ* with only the patient. In this respect, the gap between most allied healthcare literature and these findings from within radiography can be formally accounted for, within this small sample, and as proposed above. It is one thing to care for a static patient with dementia in a hospital bed, where over time the patient may become familiar with their surroundings and nurse carers, or

to meet with a patient in a GP's surgery with which they will likely have some familiarity (Babu Sandilyan & Dening, 2015a; Baillie et al., 2012). It is entirely another to parachute them into a completely new clinical scenario and involve them in a range of highly tactile and potentially uncomfortable - or even painful - investigations.

Conclusions

Three key matters arise from interrelating the findings above. The first relates to how none of the participants' narratives addressed the ways in which different forms of dementia (beyond early and late stages) might be relevant to their actual everyday practice. For some, this even manifested in viewing potentially constructive patient activity as 'just' symptomatic of dementia (Babu Sandilyan & Dening, 2015b; Desai et al., 2012). While these data might indicate a general lack of education for junior radiographers around the core features of dementia, they certainly suggest that the basic education being provided is insufficiently tailored to practical clinical contexts. This, in turn, has serious legal implications for how a junior radiographer might actively assess informed consent, and this is a core area for future research (Haberstroh, 2015; Sherratt et al., 2007).

Secondly, and with relevance to the first point, some of the junior radiographers argued that they had not been prepared - by their radiographic education or subsequent training - to actively manage patients with dementia. What would qualitatively constitute good/useful training, however, remained largely unpacked by the participants in this study; instead, a simple quantitative sense of 'more' training as a catch-all solution to situated problems tended to prevail in their narratives regarding every problem. While this might be viewed as evidence of simple naiveté among novice practitioners, who 'don't know what they don't know', much pertinent literature in the allied healthcare domain actively reflects and

reinforces this position (Baillie et al., 2012; Baillie, Merritt et al., 2012). Whether quantitatively or qualitatively informed, however, a sense of ‘unpreparedness’ evidently informed a regressive spiral among the participants whereby each subsequent experience was interpreted as having been awkward, and their confidence had been diminished as a result. Others, who also maintained they had held negative assumptions about dementia, and who made no greater acknowledgment of the different types of dementia itself, saw former out-of-context experience - or the simple conviction that they were learning - as having boosted their confidence in clinical scenarios. It appears to be vital, thus, for educators and trainers to bring together the effective modes of knowledge in this domain: (a) the ‘that’ of dementia (i.e. genuine clinical findings) to ensure legal propriety at the very least, and (b) an in-practice sense of the ‘how’ around dementia that will inform best clinical practice given everyday restrictions.

Finally, it became apparent that the experiences of the junior radiographers when managing patients with dementia were actively mediated by both the personnel present and the technology available during an examination (Woods et al., 2016). There are many accounts in contemporary healthcare literature of how new equipment and - particularly - the increased reliance on family/carers simply advantage the clinician when handling patients with dementia (Elkins & Weatherhead, 2014; Jurgens et al., 2012; Livingston et al., 2014; Webb & Denning, 2016). However, the evidence derived from this study indicates a more nuanced interpersonal picture, and one that should not be overlooked in future research.

It is reasonable to contend, given the short-term and prospectively intimidating clinical situations characteristic of many fields in medical imaging, that the findings here will have relevance for the management of patients with dementia for practitioners in many allied patient-facing fields. Although the manifest purpose of this paper was to explore the experiences of junior radiographers, there is also a clear case for advancing this model of

research through a broader examination of more senior professionals by contrast. As noted above, if constant negative experience is allowed to persist (on the grounds that experience equals expertise) then it may suggest that some senior clinicians in any related clinical field might be subject to some of the same concerns. The modest purpose of this paper has, however, been to highlight some clinically-relevant issues within a small sample of junior radiographers in the UK. These issues, may, in turn, have import for the broader understanding of how a patient's dementia can impact upon everyday practice for a new practitioner in range of fields, not least those naturally dissociated from dementia itself.

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