Advances in Communication and Swallowing 25 (2022) 97–107
DOI:10.3233/ACS-220005
IOS Press

Research Article

Experiences of dysphagia trained nurses in the screening and early management of swallowing in acute stroke: A qualitative study

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Received 16 April 2022
Accepted 24 June 2022

Abstract.
BACKGROUND: Nurses often carry out swallow screening when patients are admitted to hospital following a stroke, some receive further training to conduct more comprehensive tests. Little is known about how they perceive their role. The aim of this study was to understand the experiences of Dysphagia Trained Nurses (DTNs) in acute stroke who conduct the comprehensive tests.
METHODS: Nine DTNs were recruited from one UK hospital. They were identified by maximum variation and convenience sampling ensuring a broad demographic. Semi-structured interviews were carried out during usual shift patterns, in a quiet room on the acute stroke unit by a research and clinical SLT. Thematic analysis was conducted by two researchers and a summary of themes was verified by the participants.
RESULTS: Four main themes were identified relating to the role, screening tool, training and pathway. The role was highly regarded, bringing professional benefits such as job satisfaction and career development. Nurses also identified that it was an essential role in acute stroke for the health and wellbeing of patients. The tool was easy to use but needed adaptations at times and the pathway was difficult to adhere to during busy periods when the use of the test with certain patients was questioned. Training and support was deemed crucial for the role and confidence developed with experience.
CONCLUSIONS: Dysphagia Trained Nurses who conduct comprehensive dysphagia screening tests in acute stroke value the role. Further research is needed to quantify the impact that the nurses have on patient outcomes and stroke pathways.

Keywords: Stroke, nurses, swallowing, dysphagia, screening, assessment, qualitative research

1. Introduction

Post stroke dysphagia is common (Cohen et al., 2016; Martino et al., 2005) and early screening and assessment are important to reduce pneumonia (Bray et al., 2016; Yeh et al., 2011). The Royal College of Physicians (RCP) and National Institute for Clinical Excellence (NICE) guidelines recommend that all patients who present with a stroke are nil by mouth (NBM) until they have their swallowing screened by a trained professional (NICE, 2019; Royal College of Physicians Intercollegiate Stroke Working Party, 2016). The aim of swallow screening is to iden-

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ISSN 2772-5383/$35.00

tify those with dysphagia so they can be directed to Speech and Language Therapists (SLT) to assess swallowing to determine the nature and severity of the impairment and provide ongoing management. In the UK, SLTs do not cover stroke units 24 hours a day and often are only commissioned to provide a 5 day service. Therefore, nurses and other professionals are often trained to screen swallowing in stroke prior to SLT assessment (Eltringham et al., 2022). These may be simple water swallow tests (WST) or more comprehensive screening tests (CST) allowing for recommendations of modified oral intake (Benfield et al., 2020). Research has shown that nurse administered swallow screening tools have good sensitivity to identify dysphagia (Benfield et al., 2020; Schepp et al., 2011). WSTs require little training to administer and patients can either pass, and so commence normal oral intake, or fail and remain NBM. CSTs usually require more training and test the safety and efficiency of different diet and fluid consistencies, making recommendations for these as indicated. One such CST is the Dysphagia Trained Nurse assessment (DTNAx) which can be used by nurses who have undergone theory and practical training and had their competency signed off by an SLT. This tool has been shown to be highly accurate in identifying dysphagia when compared to SLT assessment (Benfield et al., 2021).

Nurses have been involved in the development of these tools and pathways (Davies et al., 2001; Heritage, 2001) and a survey conducted with 60 nurses and 45 SLTs working in the north-west of the UK found that screening for dysphagia was accepted as part of the nursing role (Boaden, 2011). In a recent interview study, nurses report swallow screening and assessment pathways vary across stroke units in the UK (Eltringham et al., 2019). Nurses identified several barriers to timely swallow screening in stroke units in the UK and Australia such as multiple simultaneous admissions or not being admitted to stroke units within 4 hours (Eltringham et al., 2022; Murray et al., 2021). However, little is known about the experiences of the nurses who carry out these swallowing screening tests.

2. The study

2.1. Aim

The aim of this study was to understand the experiences of Dysphagia Trained Nurses (DTN) in acute stroke who conduct CSTs and make early management recommendations using the DTNAx.

2.2. Study design

The research design was a Qualitative Descriptive Study whereby DTNs were interviewed with the aim to present a straightforward account of their experiences in this role in acute stroke (Sandelowski, 2000). To analyse the data we used thematic analysis to give a rich description of the data set (Braun & Clarke, 2006).

2.3. Participants & setting

Ten DTNs were approached and invited to participate from the Acute Stroke Unit (ASU) which includes a Hyper Acute Stroke Unit (HASU) at an East Midlands Hospital. Nurses were given verbal and written information regarding the research. Participants were selected by a combination of maximum variation sampling and convenience sampling (Green & Thorogood, 2018) to represent all levels of nursing and DTN experience, type of shift pattern and demographics.

2.4. Research team

The interviews were carried out by the researcher (JB) who was a female doctoral student and a clinical SLT on the ASU working alongside the participants. JB had undertaken postgraduate training in conducting interviews for qualitative research. JB also coordinates the DTN training and audits the stroke dysphagia pathway. In order to lessen any effect of a power relationship between the interviewer and interviewees (Green & Thorogood, 2018) the nurses were asked to be fully honest in their responses and they were reassured that the interviews were confidential and could express any negative opinions they had without consequence.

2.5. Data collection

The interviews were semi-structured around a set of questions (Table 2) to ensure the most useful information was gathered. A pilot interview was carried out with a separate DTN prior to recruitment, the recording was listened to and reflected upon to ensure that the quality of questions was appropriate and the information received was focused (Bryman, 2004). From this, several questions were rephrased and prob-

ing questions were added to the original interview to help draw out further information. The recruitment period was November 2018 to February 2020.

Interviews were carried out during the nurse's normal shifts on ASU. This was negotiated with the coordinating nurse and the DTN and only conducted if there was sufficient ward cover. The interviews took place in quiet rooms, off the ward, with no interruptions. Field notes were not taken by the interviewer but the interviews were audio-recorded and later transcribed by the interviewer.

2.6. Ethics

The study received ethical approval from the West Midlands Research Ethics Committee (17/WM/0209) and locally from the NHS Trust Research and Development Team. Participants gave written consent to participate. Voice recordings and transcripts were anonymised. The Consolidated criteria for Reporting Qualitative research (COREQ) has been used to guide reporting (Tong et al., 2007).

2.7. Sample size

A sample size of ten was estimated to be sufficient given previous research suggesting no new themes emerge after 6–12 interviews (Guest et al., 2006). We recorded the interview number where new themes were documented to explore data saturation.

2.8. Data analysis and rigour

Full thematic analysis was conducted by the main researcher (JB); a second female member of the research team (AH) also read the transcripts and identified key and common themes to improve reliability of the research (Cornish et al., 2013). We followed Braun and Clarke's (2006) six phases of thematic analysis. In Phase One, JB familiarised herself with the dataset. Phase Two, coding, a series of nodes were identified *a priori* based on the overall research question and specific interview questions; including the role, training, support, the DTNAx tool and paperwork. Initially, using NVivo 12 Version 12, data were coded into these a priori nodes deductively and new nodes were created inductively as they were identified in the data (Fereday & Muir-Cochrane, 2006). In Phase Three and Four, JB reviewed the nodes to search for themes and organised the coded data under each theme, adding sub-themes where indicated. The themes from both reviewers were compared, AH identified all the themes that JB had coded only adding two subthemes which were agreed upon and added to the thematic framework. In Phase Five, themes were described and summarised, and to increase reliability the results were shared with participants for comment (Miles & Huberman, 1994); no disagreements were received. A final revision of theme names was carried out and then in Phase Six the report was written presenting and describing the themes and giving relevant extracts from the data.

3. Results

Nine nurses were consented and recruited for a single interview; one declined to participate due to not wanting to be audio-recorded. Table 1 gives demographic information of the included nurses. Most nurses were female, UK trained, Band 5 or 6 and worked full time day, night or mixed shifts. There was representation from two nurses who trained abroad, one male nurse and one part time nurse. Experience as a nurse ranged from two years to 30 years and experience as a DTN ranged from one to 15 years. This sample was not proportionate to the actual population of DTNs working on the ASU but represented the diversity of the population.

Interviews lasted between 10 and 22 minutes. The thematic framework with its themes and sub-themes is shown in Table 3. Four main themes were identified. No new themes or sub-themes were coded or identified after the sixth participant.

3.1. Theme 1: Nurses value the role

The DTN role was highly valued by the nurses, not only for enhancing professional development, but also as it has a positive impact on patient's health and quality of life and assisted in the stroke pathway.

> "*It's a nice skill to have as a nurse anyway, but especially if someone is working in stroke, it's essential really and every RN [registered nurse] should have it that's going to be working in stroke or rehab*" Nurse 4.

> "*Generally, when the patients come up, they have been in A&E for hours a lot of the time and they haven't had anything to eat and drink and they are hungry, so when they come up all they want to do is eat and drink*" Nurse 6.

Table 1
Demographic information for the Dysphagia Trained Nurses who participated in interview

Demographic	Numbers (%)	
Sex	Female	8 (88.9)
	Male	1 (11.1)
Years qualified	0–5	3 (33.3)
	5–10	2 (22.2)
	10–15	2 (22.2)
	25–30	2 (22.2)
Where qualified	UK	7 (77.8)
	Outside UK	2 (22.2)
Band/Grade	5	4 (44.4)
	6	5 (55.6)
Full/Part time	Full time	8 (88.9)
	Part time	1 (11.1)
Shifts	Mix of days and nights	4 (44.4)
	Mostly days, occasional nights	3 (33.3)
	Only days	1 (11.1)
	Mostly nights	1 (11.1)
Years as a Dysphagia Trained Nurse	0–5	4 (44.4)
	5–10	3 (33.3)
	10–15	2 (22.2)

Table 2
Semi-structured Interview questions

Interview questions
Background
1. When did you qualify as a nurse? _____ and where?
2. How long have you been a DTN? _____
3. Are you …? Band 5 Band 6 Band 7
4. Do you work …? Mostly days Mostly nights Mix of days/nights
5. Are you…? Full time Part time
6. How often do you carry out a DTN assessment?
> 1 × week 1 × week 1 × fortnight 1 × month < 1 × month
Role Impact
7. What impact do you as a DTN have on stroke patients admitted to ASU?
8. What do you think of your role as a DTN within ASU?
Training
9. Did you gain anything from the DTN training? If so what?
10. Did the training equip you to assess swallowing using the DTN assessment tool?
Yes No
Can you give me some more details?
11. How confident do you feel using the DTN assessment tool? Are there any scenarios where you feel more or less confident?
12. Do you receive any support as a DTN? Do you feel you need it?
DTN Tool
13. What do you think of the DTN assessment tool's ability to identify dysphagia? Do you think you get an accurate picture of someone's swallowing using the DTN assessment tool?
14. How do you find assessing swallowing using the DTN assessment tool?
15. Is it always possible to follow all the steps of the assessment tool?
Yes No
Can you give me some more details?
16. What do you think of the DTN assessment paperwork? (Show paperwork)
17. Do you have any other comments?

DTN: Dysphagia Trained Nurse, ASU: Acute Stroke Unit.

Nurses reported that by carrying out the DTNAx, earlier decisions could be made about feeding, hydration and medication routes.

> "*So if they come in a Saturday morning better than them waiting until Monday because they always come up thirsty and starving and it's the first thing people ask for is a drink always. And then we know they can whatever consistency they go on to be able to have the medications they need as well, it's better.*" Nurse 4

For all interviewees, DTNAx were seen as an essential role in ASU following direct admission.

Table 3
Themes identified from Dysphagia Trained Nurse (DTN) interviews

Themes	Sub-themes
Nurses value the role	Speech and Language Therapists (SLTs) as experts, DTNs supporting
	Hyper-acute or beyond
	Enhances and or extends the nursing role
	Positive impact on patient's comfort, wellbeing and health
	Expedites patient care within the stroke pathway
	Better with more DTNs
Easy to use but some adaptations necessary	Accurate
	Easy or Step by step
	Lengthy
	Challenges completing the DTNAx as intended
	Differences in administration of the DTNAx
	Changes due to International Dysphagia Diet Standardisation Initiative
Training and support are essential for building competence and confidence	Gain additional knowledge
	Developing specialist/intuitive skills
	Need for regular training updates
	Confidence comes with practice and experience
	Fear and dips in confidence
	Patient differences
	Self-awareness
	Support from SLTs and other DTNs
Challenges to adhering to the pathway	Assessing patients already eating and drinking
	Assessing patients with no or mild unrelated problems
	Medical intervention
	Time pressure

To some it was exclusive to the hyper acute stroke unit (HASU – formerly HDU), but to others it was also important for patients later in the rehabilitation pathway due to their evolving swallow status.

> "*It's vital that you need to be DTN trained because it's not only HDU, it's the rest of the ward. And patients are constantly getting better, patients get poorlier*". Nurse 7

It was also clear that a DTN was deemed as a supporting role to the SLTs, who were described as the experts in dysphagia by a number of nurses.

> "*we do look to you guys, SLTs, for your expertise*" Nurse 7

The nurses that had been a DTN for many years highlighted that the role has improved as there are many more DTNs trained than in the past. They described when they were the only DTN on shift with some resentment, reporting that much of the shift was taken up by DTNAx.

> "*I was straight in being DTN trained because there weren't as many people then, so you felt like it was all you were doing was the swallow assessments. Which is fine when they're needed but when you've done so many in a day, it's distracting you from the other stuff you need to do*". Nurse 4

3.2. Theme 2: Easy to use but some adaptations necessary

The majority of nurses reported the DTNAx being easy to follow and progressed in a step by step way.

> "*It's good because you follow it and you can't go wrong … because it's laid out in front of you*" Nurse 4

They felt the tool was accurate at the time of conducting it but raised concern that a patient's swallow status might soon change, leading to conflicting results with subsequent SLT assessments.

> "*Nine times out of ten, if someone is going to struggle with their swallow I think it picks it up quite quickly … there was a couple of times where I've assessed somebody and they've been normal diet and fluids or like level 2 fluids and then sometimes later on in the day when they are more fatigued they start to struggle and then I've reassessed them or I've made them NBM and put them down for you (SLT) to review the next day*" Nurse 8

A couple of nurses thought the DTNAx was lengthy, taking around 20 minutes to complete, particularly when the unit was busy with frequent admissions.

> "*At the end because if it's been a long assessment, it's like oh paperwork, and you have to write it all out, but we have to write so much out that's just a comment about healthcare grievance.*" *Nurse 4*

Most nurses said the paperwork was straightforward, a few individuals mentioned aspects they found less clear or frustrating, but no specific common theme was identified.

> "*Structured. Very easy. It's a bit of a tick box exercise. So you tick boxes and make comments.*" Nurse 1

Nurses reported variation in how they conducted the test, with some following it step by step, others doing it from memory.

> "*You do know it off by heart and you sort of develop it into your working as you're going as well whilst following the framework*. " Nurse 4

They reported having to adapt to patients because of dietary requirements, language barriers, difficulties understanding or completing some of the subsections.

> "*Sometimes supplies have been a bit awkward to get or if they have an allergy. There are some things that we can't help but we don't miss a step. We sometimes have to improvise*" Nurse 1

> "*I find the assessment good. It's only in English. For our other patients that can't speak English it might be good to have something in different languages . . . but you do a lot of gesture.*" Nurse 7

Some reported skipping test components due to several reasons, ranging from availability of food items, lack of patient engagement, patients having difficulty following instructions, other dietary restrictions or due to time pressures.

> "*[When its busy] I've missed out a few bits, I've just gone straight to normal diet but I've watched them and gone through everything. And I don't tell anyone else to do that I've just took it upon myself to do that*" Nurse 3.

Several nurses reported having to get used to a few changes over recent years due to a move from the UK National descriptors to the International Dysphagia Diet Standardisation Initiative (IDDSI) framework (Cichero et al., 2016).

3.3. Theme 3: Training and support is essential to build competence and confidence

The training was viewed as beneficial in acquiring and learning a new skillset. It was seen as essential for being a DTN but some nurses also felt it deepened their understanding of stroke aetiology and management.

> "*I learnt a bit about the anatomy of the swallow, because before I had the training I didn't really know. Particularly in stroke, why we do it and how that can benefit the patient. I think if you've not had that training you don't fully understand the implications of it. It's good to have*." Nurse 8

The training and subsequent experience has helped many develop specialist and intuitive skills in dysphagia.

> "*you know really yourself, when you looking at the patient and the sound when to carry on and when to stop*" Nurse 2

> "*You do a lot with your hearing, and you hear an odd cough and you think what's going on here or what's going off over there. These things come with time and experience*" Nurse 7

Many of the nurses felt that regular updates for DTNs were necessary to maintain skills, confidence and learn about any changes in protocol. Some expressed the need for continuing education or training, others valued an update they had recently attended.

> "*could do with a refresher, I don't know if it's every year or every three years but it's a good update for anyone who's dysphagia trained*" Nurse 2

Confidence improved with practice, some nurses initially feared performing the test, due to concerns about getting it wrong or causing harm, but with experience the majority felt assured. They reported confidence varied with frequency in performing the test or with patients with additional co-morbidities.

> "*the more I do it the more confident I feel*" Nurse 8

"*there's times when … I'm not confident about what I found because the patient … seemed a little bit complex and maybe I sometimes worry are they not showing signs of aspiration*" Nurse 4

Despite feeling confident they also recognised when to ask for help or stop if they were unsure, demonstrating awareness of their limitations.

" *Yeah confident, but if I ever have any issues then I just stop the assessment and I document everything. This week I've had a couple of patients that I've had interesting experiences with and I've asked a colleague to come and see because I'm a bit unsure*" Nurse 1

All the nurses described adequate support in the role from SLTs but also from more experienced DTNs. They related that the SLTs and senior DTNs were approachable and accessible. Support was sought on the ward as required and in the form of discussing findings or requesting a second opinion from another DTN.

"Yeah, if you don't know what to do you can ask the senior staff as well, or an SLT" Nurse 9

3.4. Theme 4: Challenges to adhering to the pathway

The DTN role was viewed as having a positive impact on the stroke pathway. However, when a patient arrived to the ward who hadn't followed the usual swallowing pathway and were already eating and drinking without prior assessment, the use of the DTNAx was questioned.

"*I have people, they've been eating and drinking downstairs on MAU [Medical Assessment Unit], it's really busy, you've got 50 million people, you order a normal diet and you go from there. I know that I shouldn't but I've done that before. Sometimes it's really difficult when you know that they've been eating previously before they come up but I need to do it, it's got to be done*" Nurse 3

A few nurses questioned the use of the DTNAx in patients with mild unrelated symptoms or no symptoms; two suggested they might skip parts of the test if it was busy or if the patient wasn't so happy to comply.

"*I can't understand why we do DTN on people with some symptoms. I can understand if a patient has got speech problems or swallow problems and that triggers on the NIHSS [National Institute of Health Stroke Severity] score. But a patient has just got a little bit of limb weakness or sensory weakness, we're doing a full DTN assessment on them*" Nurse 1

"*[When the patient says]"I'm not having it you're not getting that down me*". *So you have to use your best judgement at the time, is it safe to move forward or whatever*". Nurse 4

Decisions by the medical team were on occasion also reported to impact on whether the test was carried out in the way intended.

"*Sometimes the doctors might push you to do an assessment, but it's knowing when to say no, actually when you need to and knowing that you could be causing harm if you don't do it properly*" Nurse 8

4. Discussion

DTNs screen acute stroke patients for dysphagia and make recommendations for commencing oral intake if deemed safe on the DTNAx. Given there has been no research to date regarding the opinions of nurses in such a role, we interviewed nurses clinically active in acute stroke care and asked them to share their experiences.

The interviews highlighted that nurses positively valued being a DTN. The DTN role can be seen as an extended nursing role and previous studies have found that nurses value additional responsibility, as has been found with prescribing (Lennon & Fallon, 2018), thrombolysis (Catangui & Roberts, 2014) or developing another speciality in their field of practice (Fry et al., 2012).

The fear some of the DTNs experienced when starting out was not specific to dysphagia, but to taking on new skills. This was also found with nurses who take on thrombolysis responsibilities in acute stroke (Catangui & Roberts, 2014). We found that workload and time pressures often impaired the ability to fulfil the role, also seen in previous studies assessing the responsibilities of nursing on the HASU (Catangui & Roberts, 2014). Multiple admissions to the HASU and competing priorities have also been reported as challenges which delay swallow screening in acute stroke (Eltringham et al., 2019; Murray et al., 2021).

Improving patient care was seen as an important benefit of the DTN role. Quantitative studies have shown that early swallow screening reduces pneumonia in acute stroke (Bray et al., 2016); however, the nurses interviewed identified other benefits such as patient comfort and early medication administration. Extended or specialist roles mean that nurses can offer continuity of care to their patients, which is perceived as beneficial to the patient's quality of life (Catangui & Roberts, 2014; Fry et al., 2012; Lennon & Fallon, 2018).

There is limited documentation in the literature of the role and responsibilities of a DTN or in fact how CSTs such as the DTNAx are used in practice. This study shows that DTNs may also have a role in monitoring and reviewing swallowing after patients leave the hyperacute unit due to patient variability and the complexity of swallow recovery. Another CST, the Volume Viscosity Swallowing test (V-VST) has also been used to review swallowing by nurses (Guillen-Sola et al., 2013). Further research is indicated to understand the role of dysphagia trained nurses and how they would best work alongside SLTs in screening and assessment of swallowing in acute stroke. Exploration of how these pathways are perceived by other members of the MDT, such as medical teams, when they have to manage competing priorities is also needed.

Assessing patients with no, mild or unrelated symptoms using the DTNAx was viewed by the nurses as unnecessary and in some cases adherence to the test proforma was reduced. This finding brings into question whether a CST such as the DTNAx is necessary with all stroke admissions. WSTs are also commonly used as quick screening tools in the stroke pathway. These tools have good sensitivity in identifying dysphagia for this group of patients (Schepp et al., 2011). Many of these tools 'fail' patients with oromotor dysfunction or speech difficulties, assessing only those with no, mild or unrelated symptoms so they tend to have lower specificity (Schepp et al., 2011). The DTNAx has been shown to have good sensitivity and specificity to identifying dysphagia but takes longer to carry out (Benfield et al., 2021). Therefore, a 2-stage test, whereby only those failing a WST are assessed with a CST, or a combination of the two may be more practical, acceptable and time efficient to carry out.

The DTNs are trained up to a level of competency in the Interprofessional Dysphagia Framework whereby they can complete a protocol guided assessment (Boaden & Davies, 2008). The nurses reported that it wasn't always possible to follow the protocol, and they had to adapt it to certain patients such as those that cannot follow instructions, have allergies or organisational reasons such as limited range of foodstuffs on offer. The level of competency they achieve includes learning key knowledge about swallowing and dysphagia. The nurses that were interviewed stated that training was essential for the role. Given the findings of this research, this training is essential as it is likely they have to use expert clinical reasoning skills to pragmatically deal with situations that might occur in practice therefore adapting and deviating from the strict proforma. The training they receive is carried out in the workplace and offers practice using the DTNAx with patients on the ASU. Workplace training has been indicated as a factor that improves the transfer of knowledge into practice (Manley et al., 2018). Competency based education is essential in developing healthcare staff to work successfully in a modern healthcare setting (Frenk et al., 2010) and also increases satisfaction with training and transfer of skills (Meyer et al., 2007). A culture where there is support from peers as well as assessors or clinical educators as described by the nurses also contributes to successful learning and transfer of skill (Meyer et al., 2007). Maintaining skill, knowledge and competence is the backbone of all registered healthcare professionals, built in to registration with the Health and Care Professions Council and with professional bodies. Little is known about whether DTNs maintain their knowledge and skills over time nor how many they need to perform per year to maintain competence. However, considering this was valued by the nurses, regular updates or refresher courses may be beneficial for reassurance (Harrison & Hogg, 2003), improving confidence, self-efficacy and perceived competence (Shahsavari et al., 2017). Consideration about how refreshers are delivered is important as nurses find it difficult to prioritize CPD during their clinical shifts due to workload pressures (Rees et al., 2021). Further studies could explore the efficacy of such updates to inform their mode of delivery, content and frequency.

The nurses perceived the role as complementary rather than as a replacement to the SLT role which is important given that DTNs are only trained to use diet and fluid modification to compensate for dysphagia where this demonstrates reduced risks of aspiration and choking (Bolivar-Prados et al., 2019; Cichero, 2015). The nurses are not trained in other adaptations (for example, swallowing strategies, carbonation, use of cups, transition foods) or for use

of instrumental assessment, longer term management or planning dysphagia interventions. Importantly, all of these patients go on to be managed by the SLT for assessment and review of the current management with the aim to achieve normal diet/fluids where possible.

4.1. Limitations

Considering the interviews were conducted across a broad, representative demographic of nurses it could be concluded that data saturation was reached (Francis et al., 2010). However, principles such as an initial analysis sample and stopping criteria which help to strengthen claims of saturation (Francis et al., 2010) were not agreed prior to conducting the study. Second, there may have been a power relationship between the interviewer and interviewees and bias in the interpretation of the data due to clinical role held by the interviewer. Considering the DTNs shared their experiences of when they had to deviate from the DTNAx pathways and protocol and there were comments that could be perceived as critical, it is likely that this relationship was overcome by the reassurance given by the interviewer. Third, time constraints due to the interviews being carried out whilst nurses were on shift meant that some of the responses could not be more deeply explored. Lastly, this study captures the opinions and experiences of DTNs in only one hospital using the DTNAx tool. This particular tool is not currently used in other settings; therefore, it would be difficult to generalise the results to other stroke services and to the use of other tools. It does, however, give insight into key areas that specialist nurses reflect upon and gives a framework to conduct further research.

5. Conclusion

DTNs in an acute stroke setting value their role and the training they receive to screen patients' swallowing and recommend oral intake. They found the test easy to use and perceived it's use in the stroke unit was beneficial for patient's health and wellbeing. Sometimes the role was challenging but nurses developed skills and knowledge to overcome these barriers through accessing support from more experienced staff. Further research is needed to understand the impact DTNs can have on the outcomes of stroke patients and explore which swallow screening and assessment pathways are the most clinically and cost effective.

Acknowledgments

Jacqueline K. Benfield's PhD Studentship was funded by the National Institute for Health.

Research (NIHR) and Collaboration for Leadership in Applied Health Research and Care.

(CLAHRC). The views expressed are those of the authors and not necessarily those of the National.

Health Service, the NIHR, or the Department of Health.

Conflict of interest

PMB is Stroke Association Professor of Stroke Medicine and Emeritus NIHR Senior Investigator, has received honoraria funding from DiaMedica, Moleac, Phagenesis and Sanofi.

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