Delivering safe, effective nutrition and hydration care to residents with dysphagia: a theory-based approach to developing a link dysphagia practitioner

Delivering Safe, Effective Nutrition and Hydration Care to Residents With Dysphagia: a Theory-based Approach to Developing a Link Dysphagia Practitioner.

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Chapter One:
Background

Dysphagia pathophysiology and occurrence

Swallowing is an important aspect of eating and drinking[1] with the function of the swallowing process being to transfer food from the mouth to the stomach via the oesophagus[2]. When a person has difficulty swallowing foods and/ or fluids this is known as dysphagia[3]. Dysphagia is caused by structural or neurological dysfunction[2]. It can occur as part of an underlying health condition such as chronic obstructive pulmonary disease, as a side effect of some medications, following surgery or as a result of underlying pathology that affects the mouth, pharynx, or oesophagus [4, 5]. In older people, dysphagia is related to impaired swallow efficacy and/or safety due to weak tongue propulsion and prolonged and delayed oropharyngeal swallow response [6]. This is commonly associated with physiological and anatomical changes associated with aging, dementia, stroke, and neurodegenerative disorders [1, 4, 6, 7, 8].

Estimating the true prevalence of dysphagia is difficult and varies from country to country and as a result of the screening and assessment tools used. In a Japanese study of 510 independent and 886 dependent older people living at home the prevalence of suspected dysphagia was 25.1% and 53.8% respectively [9]. Given the degree of frailty and dependence of many residents in care homes, dysphagia among care home residents is thought to be common and is estimated to affect between 50% and 70% of residents 10 [8,10]. In a questionnaire answered by nursing home staff from 19 countries across Europe and North America dysphagia was reported in just 13.4% of residents, however there was great variation in the prevalence rates between participating countries[11].

People with dementia make up 80% of residents in nursing home or residential care settings and dementia has been found to be a significant predictor of dysphagia in these settings [8, 12]. It is estimated that in the later stages of dementia, over 90% will have swallowing difficulties [6].Dysphagia affects between 40% and 78% of people who have a stroke and at least 15% will still have persistent swallowing problems [13, 14] . The UK has an ageing population, by 2030 one in five people (21.8%) will be aged 65 or over, and currently 1.6million people are 85+ [15]. Ageing populations in developed countries are associated with an increased prevalence of individuals living with conditions such as dementia and stroke which carry a high risk of dysphagia. More than 100,000 strokes occur each year in the UK [16] and whilst the incidence of dementia is predicted to decline over the next 25 years, the extended lifespan means that the prevalence of those affected is expected to increase by 57% [17]. The prevalence of people living with dementia in the UK is predicted to exceed one million by 2025 [18]

Systematic review evidence indicates that dysphagia increases acute health care costs by 40%[19] , although there is no similar analysis for costs associated with dysphagia in social care settings in the UK. A Danish study concluded that patients with dysphagia were significantly costlier than patients without dysphagia in both hospital (p=0.013) and social care (p=0.028) settings[20] . A recent economic analysis calculates that for everyone pound invested in low intensity SLT for adults with dysphagia following stroke, there is a healthcare cost saving of £2.30 through avoided cases of pneumonia and that nationally this would equate to cost savings of £13 million[21].

The safety of people who require health and social care support in nursing and residential settings is a national priority. The causes of harm that occur as a result of unsafe care in the residential and care home sector often only come to light following the investigation of an untoward death or freedom of information requests. Data from the Office for National Statistics suggest that between 2014 and 2017, 194 people over the age of 70 died as a result of choking in the residential/care home sector[22]. The Care Quality Commission mentioned unsafe practice in relation to the care of people with dysphagia in 12 care home inspection reports from 2015-2018[23]. However, interventions to prevent harm and improve the quality of care in residential and care homes is under-researched.

Dysphagia in older people significantly increases the risk of choking, aspiration, dehydration, and malnutrition and adversely affects quality of life. Dysphagia is associated with considerable morbidity and mortality and has been identified as an independent risk factor for mortality in nursing home residents [24]. When swallowing becomes compromised, people may become isolated, under-nourished, dehydrated and frail[5]. Dysphagia is an important risk factor for dehydration and malnutrition. Malnutrition results in weight loss and dehydration is associated with an increased risk of urinary tract infections, pneumonia, falls, delirium and constipation [25]. Dehydration has also been linked to recurrent hospital admissions, poor clinical outcomes and mortality [26].

In addition to being associated with dehydration and malnutrition, dysfunction of the swallow process can result in food or drink entering the airway, increasing the risk of aspiration pneumonia[5,27, 28]. Aspiration is estimated to occur in between 43% and 54% of stroke patients with dysphagia, with more than a third going on to develop pneumonia[29]. Evidence from autopsy suggests that patients with dysphagia and dementia are more likely to aspirate than those without dementia and have twice the chance of dying with aspiration pneumonia[30]. Pneumonia due to dysphagia is estimated to affect between 5% and 12% of care home residents, has a mortality rate as high as 55% and is associated with increased frequency of hospital admission and duration of stay[31].

The increasing incidence of hospital admissions for pneumonia is also a major driver of antimicrobial use, accounting for 30% of prescriptions [32], with dysphagia present in up to 90%

of patients admitted to hospital with a community-acquired pneumonia [33]. Interventions to reduce pneumonia are a key priority for the Department of Health and Social Care and for the Office for Health Improvement and Disparities (previously part of Public Health England) as part of an intensive national programme to reduce antimicrobial prescribing and antimicrobial resistance[34].

Finally, Dysphagia can also have a profound impact on an individual's social interactions, quality of life and overall psychological wellbeing [35]. Along with this, individuals can experience an increased fear of choking during eating which increases feelings of anxiety or panic [6, 36]. Challenges associated with helping residents with dysphagia at mealtimes, have also been reported to cause significant emotional strain and stress to staff who can become frightened when residents choke on food, and report feeling guilty and helpless, increasing their sense of low self-efficacy [12]

Interventions to support individuals with dysphagia and reduce harm

Identifying and managing residents with dysphagia in a timely way is crucial to reducing their risk of serious complications. There is currently no consistency regarding how dysphagia is identified in residential care settings[37]. One systematic review has suggested that there is insufficient evidence to support the use of dysphagia screening instruments in this client group as the diagnostic accuracy of dysphagia screening instruments in older people is unclear[38] . A more recent scoping paper identified that at least thirteen different dysphagia screening tools are in use in the residential care setting but due to the lack of validity of screening tools in this setting and the unfeasibility of performing instrumental swallowing assessments may result in dysphagia being undetected in many residents[37]. Routine screening for individuals over 85 years of age has been suggested given the frequency of dysphagia in this age group[1].

There are a number of different interventions recommended for the management of dysphagia, these include food and fluid modification, swallow postures and manoeuvres and other interventions such as oral hygiene. However, no specific strategy fits all older residents with dysphagia [39] A systematic review of 40 studies assessed the effectiveness of interventions to directly improve, maintain or facilitate oral food and drink intake, nutrition, and hydration status in people with cognitive impairment or dementia [40]. Twenty-four studies involved residential or nursing care facilities, however only one demonstrated improved nutritional markers associated with a dysphagia diet. Other studies were small scale or of short duration, and although suggested positive effects, were of low quality.
There is evidence from one systematic review that training nurses in the identification and management of dysphagia improves outcome in stroke patients in terms of death and pneumonia[41]. In a study based in the acute setting, an e-learning training package improved

knowledge of dysphagia among nurses and HCAs but there was no assessment of the impact of increased knowledge on subsequent practice[42]. A service evaluation project of the delivery of a nutrition guide to improv ethe provision of nutritional care for people living with dementia in care homes improved the appetite and fluid intake of people living with dementia in care homes. Respondents also reported that their knowledge had improved and reported, in addition to other actions, using the International Dysphagia Diet Standardisation Initiative (IDDSI) framework in practice[43].

A narrative review of evidence for the prevention of healthcare-associated pneumonia found no RCTs investigating dysphagia diagnosis and management and the risk of pneumonia but identified four case series which suggested that a systematic programme of diagnosis and management of dysphagia in stroke patients substantially reduced the risk of pneumonia[29].

Although there are few studies, there is some evidence that compensatory swallowing strategies, safe feeding advice, and dietary modifications are associated with a reduced risk of pneumonia[44] . In a systematic review of 15 RCTs (n=2226)[45] on the treatment of dysphagia in post-stroke patients, one study[46] found a significant decrease in pneumonia in the group given compensatory swallowing strategies compared to the control (26% versus 48%; p = 0.03). Compensatory swallowing strategies include adaptation of fluid viscosity and solid food textures to avoid aspiration and choking and techniques to improve the safety of swallowing[47]. Altering the texture of food and thickening fluids can help someone create a better food bolus, gain better oropharyngeal control, alter transit time in the pharynx and therefore reduce any risks of aspiration[48, 49]. Likewise, temperature and taste of food and the sensory feedback provided can help better bolus control, manipulation, and stimulation[50,51] . However, previous studies have identified that thickened fluids are often mixed incorrectly as carers do not understand the rationale or how the thickener may react when mixed with another fluids[52, 53, 54, 55, 56]. People on thickened diets rarely meet the hydration targets necessary for good health and have a higher incidence of pneumonia[57,58,59].

Interventions to support posture, such as providing appropriate head control and ensuring whole body stability during mealtimes will reduce some risk during eating and drinking [60]. Using other postural strategies e.g., jaw support, side-lying can improve oral preparatory and phase stability [61]. However, adults with dementia may find postural strategies challenging [62]. Caregivers can support the client physically, verbally, and visually to have a specific head posture to aid bolus transit[63]. Self-feeding or hand over hand support is recommended to provide the client with more control over pace, and carer training in enhancing tone and voice can be effective strategies [64, 65, 66].

Care at mealtimes is often task-centered and generally delegated to those with limited education/training who lack knowledge of useful strategies [30, 67, 68, 69]. Enhancing staff

knowledge has been shown to increase the feeling of safety and self-confidence among care staff managing residents with dysphagia[12]. A previous study undertaken by the authors, used quality improvement methods to develop and test interventions to improve hydration of care home residents. Factors found to contribute to the poor management of residents with swallowing difficulties included a lack of equipment to support drinking, poor of knowledge/skills in positioning residents to drink and preparing thickened fluids, insufficient time spent helping residents who needed assistance, and lack of supervision of care delivered by unqualified staff[70, 71] . In addition, SLT assessments were documented in care plans but rarely accessed by healthcare assistants leading to poor compliance with recommendations[70, 71]. Senior staff were unaware of whether SLT recommendations are applied in every day practice[68] . A more recent scoping review of interventions for dysphagia in nursing home residents has identified that there is very little knowledge about the effectiveness of interventions for residents with dysphagia, however, multi-component interventions, including training (of staff/residents/carers) might be successful[72] .

Dysphagia management in the care home setting

In residential/nursing homes in England, 81% of direct care is delivered by support workers generally referred to as Healthcare Assistants (HCA) and overseen by 38,000 registered professionals[73]. Staff new to caring roles are required to complete the Care Certificate produced by Health Education England, Skills for Care and Skills for Health[74]. The Care Certificate, developed for use in England, is the minimum training, supervision, and assessment that staff new to care (health and adult social care) should receive as part of induction and before they start to deliver care out of the line of sight of more experienced workers. The Care Certificate is part of a structured induction; however, it does not contain any specific training on managing nutrition and hydration of residents with swallowing difficulties.

Under the Care Act (2014)[75] the local authority is responsible for the provision of a range of appropriate care facilities for people including nursing and residential facilities. However, NHS services, such as Speech and Language Therapy, are commissioned to meet the health needs of individuals in nursing and residential settings. Speech and Language Therapists (SLT) support care home staff by diagnosing dysphagia in care home residents and recommending appropriate feeding strategies to support safe and effective nutrition and hydration care. However, a limited number of therapists and a large proportion of residents with dysphagia means that care staff may have little access to practical advice and guidance on implementing the recommended strategies for their residents. In addition, some advice such as head positioning or thickened fluids [30] and strategies to encourage residents to adhere to dysphagia recommendations[76] may be complex or difficult for staff with limited training to interpret and apply to individual residents. Nonetheless, clinical outcomes, including aspiration pneumonia

have been linked to the level of consistency and appropriateness of implementing dysphagia management strategies [77].

More recently, the Royal College of Speech and Language Therapists have produced a guide for the management of dysphagia in care home settings. This guidance, developed to assist speech and language therapists dealing with increasing referrals for dysphagia assessment and management from community settings and care homes, provides key strategic information, evidence and guidance to support discussions to inform local policy development. It also recommends that care homes ensure that staff (including care assistants) are adequately trained to identify dysphagia, manage coughing and choking and are trained in the principles of good practice relating to the RCSLTs 'Feeding Safely Routines'[78].

The Link Practitioner role

The term 'link-practitioner' (LP) describes a registered or non-registered healthcare practitioner who takes on an enhanced specialist role to act as a bridge between specialist teams/practitioners and frontline staff in a particular care environment. Link practitioners have been established across a range of clinical settings; LP for infection prevention and control (IPC) were introduced into the UK in the 1980s, standards for their role were defined by the Royal College of Nursing in 2012 and are now widely implemented [79]. Link practitioners have also been established for other specialist roles, but few have been created in social care setting and none described in relation to the management of dysphagic patients [80, 81]. An evaluation of a link nurse programme in community hospitals found that bespoke training was important and helped to improve the confidence of practitioners to challenge poor practice [82]. Developing an experienced support worker in the care home and creating formal links to the SLT team would enhance access to specialist knowledge, facilitate its translation into the care setting and support colleagues to deliver safe and effective management of residents with dysphagia. The Inter Professional Dysphagia Framework[83] provides a strategy for developing the knowledge and skills of healthcare professionals and describes a Foundation Dysphagia Practitioner that could form the basis of a Dysphagia Link Practitioner (DLP) role. However, there has been no research to explore the feasibility of such a role in a care home setting.

A systematic review of the barriers and facilitators of implementing an IPC link nurse programme in acute care settings indicated that their development and sustainability was a multifactorial process, although the data on outcomes was scarce[84] . Key enablers were involvement of managers in their nomination/approval, personality traits of the link practitioners, and clearly defined responsibilities for the role. Strategies to support training with and ongoing education and skills in teaching, change management and delivering

presentations were cited as important facilitators. Leadership support was found to be pivotal whilst financial support did not appear to be a critical factor in success. A clear understanding of care home culture, mechanisms for assuring management support and developing key skills in link practitioners are likely to be key success criteria. Interventions to change healthcare worker behaviour in relation to the implementation of guidance is variable[85] and heavily dependent upon context. Interventions are often designed on the basis of experts identifying what they think will work and not on a systematic assessment of the behavioural, system factors and local conditions that will need to be targeted in order to undertake successful safety interventions[86].

Understanding and changing behaviour of care workers: The Theoretical Domains Framework

The Theoretical Domains Framework (TDF) is focused on changing the behaviour of health professionals to support the implementation of evidence-based practice [87]. It was developed by organising one hundred constructs derived from 33 behaviour change theories into a framework of 12 domains through process of consensus from a group of health psychologists. Each domain contains key constructs thought to play a role in behaviour change in relation to clinical practice. The TDF was later validated for use in implementation research, at this time two domains were added giving a total of 14 domains in the framework [88]. The TDF shares similar constructs with the COM-B model and has been incorporated into the Behaviour Change Wheel (BCW). [89] This can be used to identify relevant components of the behaviour of interest from which the relevant TDF domains can be identified for further exploration[90]. The use of theoretical frameworks to develop interventions in healthcare settings provides a sound basis to proposed change which may have an important impact on outcomes and there is some evidence that interventions which are underpinned by theory are more likely to be effective[91].

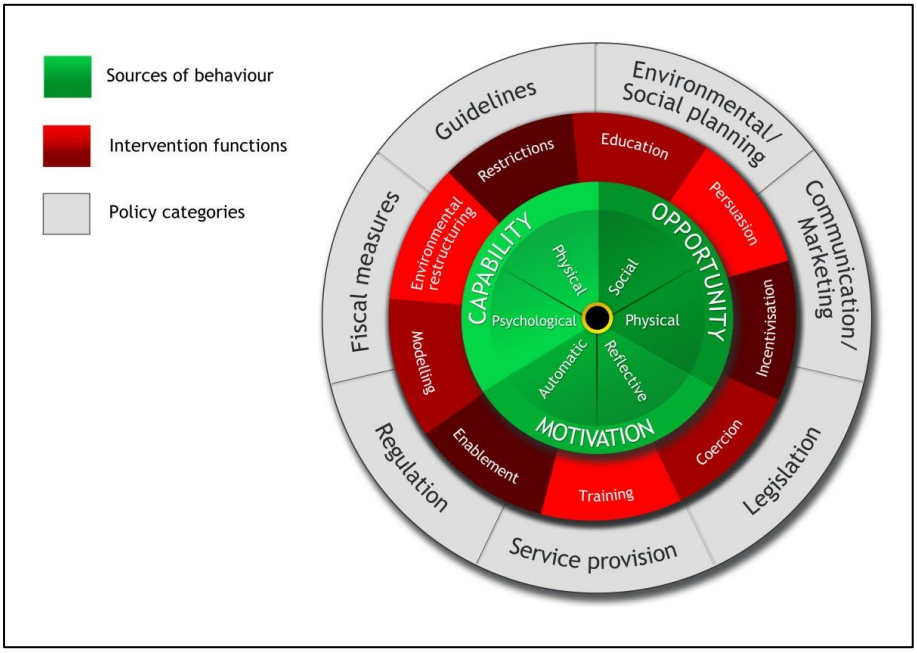
The COM-B model provides a structure for understanding the origin of behaviour in terms of capability, opportunity, and motivation. 'Capability' to perform a behaviour refers to the required knowledge, skills psychological and physical ability to perform the behaviour, 'opportunity' refers to the external factors that enable or prompt the behaviour and 'motivation' to perform a behaviour refers to individual goals, habitual processes, and emotional responses [92]. The TDF can be used to elaborate more detail about these three sources of behaviour.

Table 1.1: The Theoretical Domains Framework

1	Knowledge
2	Skills
3	Social/professional role and identify
4	Beliefs about capability
5	Beliefs about consequences
6	Motivations and goals
7	Memory attention and decision processes
8	Environmental context and resource
9	Social influences
10	Emotion
11	Behavioural regulation

The BCW places the three sources of behavior in the centre and the strategies and interventions that might be successful in targeting these and facilitating behaviour change are organised on the outer rings of the wheel (see figure 1.1).

Figure 1.1 The Behavior Change Wheel



Source: Michie, van Stralen &West (2011)

The TDF and BCW have been applied in primary and secondary care to address a range of barriers and facilitators to clinician and individual client behaviours. These include the safe insertion of nasogastric feeding tubes[93] , staff hand hygiene behaviour[94] , implementing the use of selective decontamination of the digestive tract in critical care patients[95] and exploring

the implementation of the Sepsis Six clinical care bundle[96] . However, it has not been used in the residential or nursing care setting to date. Given the complex social and environmental systems that exist in in this sector the TDF provides a theoretical approach to identifying the barriers and facilitators to safe nutrition and hydration care and informing the design of interventions to prevent adverse events and improve resident experience.

Aim of this study

The aim of this feasibility study was to investigate the appropriateness, acceptability, and potential for a Dysphagia Link Practitioner role to support safe and effective nutrition and hydration care for people with dysphagia living in residential and nursing care homes.

It aimed to answer the following questions:

1. What needs to be changed in residential care homes to enable increased adherence to safe nutrition and hydration care guidance for people with dysphagia, reduced adverse events and improved resident experiences?
2. Does the role of a Dysphagia Link Practitioner in residential and nursing care homes offer a means of influencing practice and staff changing behaviour?

Observation of the nutrition and hydration care of residents with dysphagia was used to understand the recommendations made to support safe and effective care and how these related to the actual care delivered. This data, combined with Interviews with care staff and other stakeholders was used to explore target behaviours for interventions to support the delivery of safe and effective nutrition and hydration care for people with dysphagia living in residential and nursing care homes, and to establish if the dysphagia link practitioner could provide an effective and feasible approach to achieving behaviors change.

The findings of the study would then be used to develop and test a robust intervention, underpinned by behavioural theory, to tackle the harm caused by poor quality and unsafe care practices in providing nutrition and hydration care for people with dysphagia. It will enable us to identify appropriate process, outcome and experience measures that can be used to evaluate the effectiveness of the intervention in a subsequent application for funding to NIHR RfPB or HTA.

Chapter Two:
Methods

Setting

The research was conducted in two residential/nursing care homes in West London. Home A was registered to provide accommodation for up to 146 people with nursing care needs including older people with physical frailties and/or people living with dementia and younger adults with disabilities. At the time of the study, they had approximately 120 residents present. The home was privately run, in purpose-built premises organised into five separate units.

Home B was a residential care home providing accommodation to up to 95 people requiring personal and nursing care aged 65 and over and managed by a charitable organization. Rooms were spread across three floors, each with separate adapted facilities, with two floors providing care to people with nursing needs and the third floor for frail older people or those with early onset dementia.

Speech and Language Therapy support to care homes was provided by SLTs based in the local community healthcare Trust. The support was based on a referral system with SLT assessing residents swallowing support needs on request of the care home.

Study design

This study has used a qualitative descriptive[97] and developmental approach[98] to observe current dysphagia practice, identify compliance with dysphagia guidelines and determine what needs to be reinforced or changed to provide safe care. It explored the role of link practitioners within the social care setting and engaged stakeholders in considering the system issues that would be barriers and facilitators to the behaviour changes required and the potential for a dysphagia link practitioner to support these changes. It has used quantitative methods to capture data on process and outcome measures that could be used to determine the efficacy of interventions in a residential care setting.

The research was underpinned by the Theoretical Domains Framework (TDF)[99] which formed the theoretical approach to identifying the barriers and facilitators to safe nutrition and hydration care and informed the design of interventions to prevent adverse events and improve resident experience. The COM-B model and The Behaviour Change Wheel (BCW)[89] were used to structure the research instruments in order to understand the influences on behaviour in terms of capability, opportunity and motivation and identify target behaviours and interventions that might be successful in facilitating behaviour change.

In the context of a care home the required knowledge, skills, and physical capabilities to perform a behaviour include elements such as having the knowledge to know how to feed a resident with dysphagia safely, the skills to prompt them to swallow safely, and physical strength to position a resident with dysphagia so that they can eat and drink safely. The physical and social environment has to provide the opportunity for the behaviour to occur e.g., there is sufficient time to assist residents to eat and drink safely; and the motivation to carry out the behaviour could be the belief that a resident should both enjoy mealtimes and be able to eat safely.

Patient and Public Involvement (PPI)

Aim

The aim of PPI for this study was to ensure that the perspectives of those who have experience of swallowing difficulties and/or personal experience of caring for someone with dysphagia were included to ensure our research is relevant to user needs and hence more likely to have beneficial impacts.

Methods

Our PPI co-applicant has been involved in the oversight of the research and in the data collection and analysis. They have current and ongoing experience of the issue in question and has been central to ensuring the perspectives of residents and relatives/families underpin this research. They have had a specific role in developing data collection tools for the non-participant observation, spending time undertaking general mealtime observations to help develop the observation schedule and undertaking pilot observations. We had hoped to have two additional lay advisors join our PAG. We were only able to recruit one lay PAG member. The PAG lay member assisted with the development of research materials, contributed to the topic guide for the qualitative interviews, commented on draft versions of the report and will be advising on dissemination through non traditional routes.

Study Results

The positive influence that our PPI members have brought to the research included their own real world experiences of supporting relatives/patients with eating and drinking. Their reflections of their own experience and on the observation data and qualitative interview data from the study have brought insights as to the types of skills and knowledge staff need to support residents with dysphagia.

Discussion and conclusions

PPI had a considerable influence on the study. Our lay co-applicant was involved in discussing the idea for this project from the outset, bringing the perspective of a carer for someone with

dysphagia. Having a lay perspective in developing data collection tools was crucial in helping us to identify information that we would have otherwise not collected. PPI members also helped refine the language for the survey, simplifying technical terms and ensuring questions would not be misinterpreted. They also highlighted areas that needed to be included (such as choice of food and mouthcare) on the questionnaire that was to be distributed to healthcare assistants. Our PPI contributors have advised on dissemination through associations they are members of and helping to plan and deliver a face-to-face event when Covid-19 restrictions are lifted.

Ethical approval

Ethical review from the Social Care Research Ethics Committee (SCREC) and HRA approval was sought via the IRAS system. Approval no. **00699 – UWL CNMH; REC reference 19/LO/1382; IRAS Project ID 265784.** Permission to access the care homes was obtained from the home managers and owners.

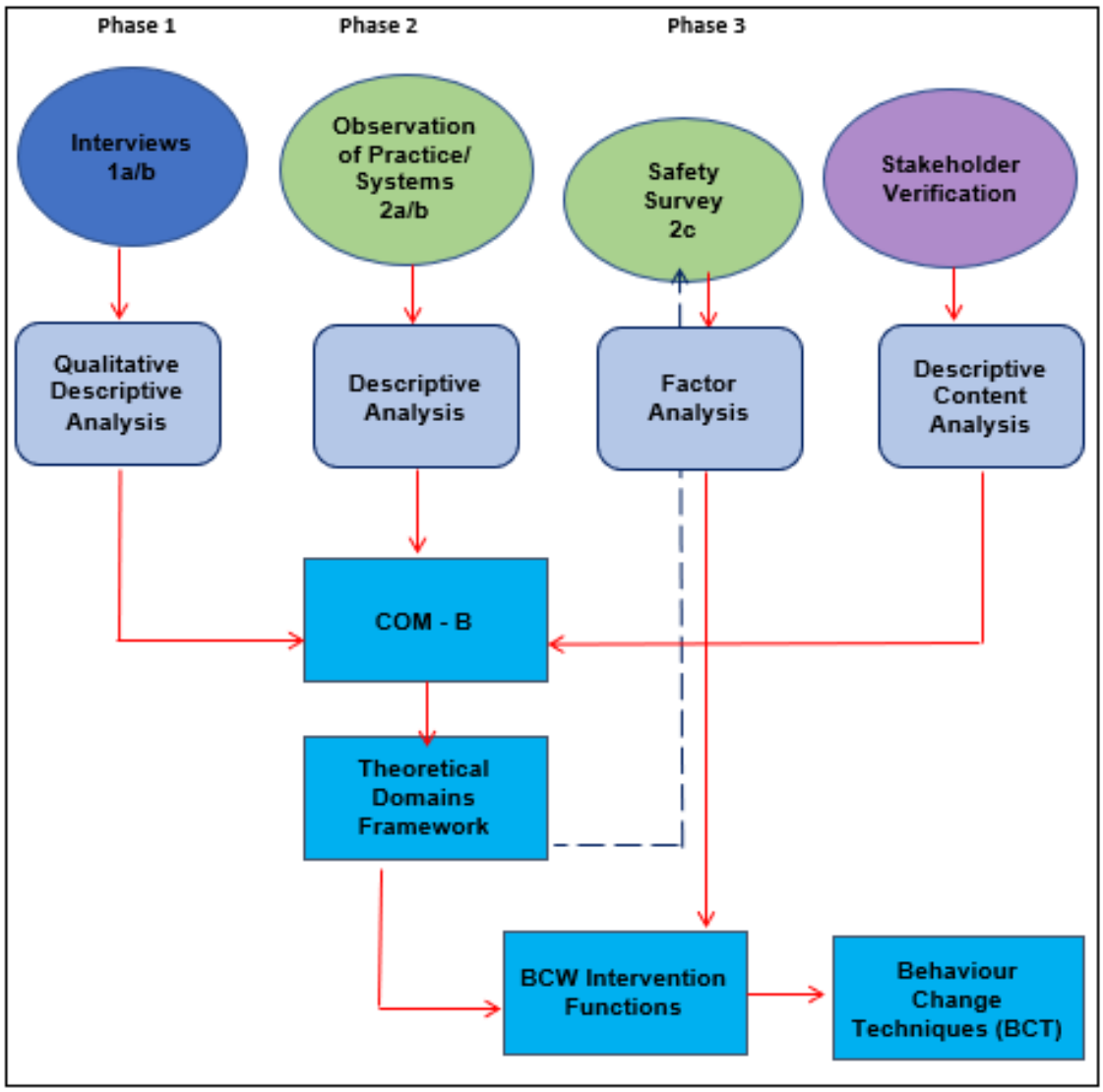
Study Phases

The study was undertaken in three phases and the objectives and methods associated with each phase are summarized in Table 2.1 and the overall design illustrated in Figure 2.1.

Table 2.1: Study objectives, methods, and study phase

Study objective	Method	Study Phase
Seek the views of stakeholders in relation to care in a care home setting on: • the system barriers and facilitators to safe and effective dysphagia • Existing dysphagia care and the establishment of a link practitioner role.	Interviews and/or focus groups with key stakeholders including, care home staff across grades and roles, speech, and language therapists	1a)
Identify the barriers and facilitators to effective DLP roles in the residential and care home setting.	Interviews with Link practitioners	1b)
Explore current practice in the care home setting in relation to dysphagia care.	Observation of practice	2a)
Establish process and outcome measures that could be used to inform an intervention study on improving nutrition and hydration care.	Data on incidence and prevalence of dysphagia and pneumonia	2b)
Identify factors that influence healthcare practitioners' safety behaviours when caring for residents using a survey.	Safety behaviour survey	2c)
Develop consensus among stakeholders regarding the target behaviours and what intervention strategies and techniques will facilitate behaviour change in dysphagia care.	Stakeholder meeting	3

Figure 2.1: Summary of the research study



Impact of COVID-19 on the conduct of the study

The SARS-CoV-2 pandemic began to affect the UK in February 2020 and coincided with the main data collection phase of the project thus having a significant impact on the conduct of the study and requiring a number of changes to be made to the planned methods. As a result of concerns about exposing residents to COVID-19, the two participating care homes were closed to all visitors, including research staff, on 12th March 2020. Home B allowed researchers to collect data from August 2020, but Home A remained closed throughout the study period. In addition, many of the residents that had been consented to participate in the study died and it was not feasible to recruit new residents. The pandemic also impacted the study in a number of other ways: data on the incidence of pneumonia was considered to be unrepresentative because it was dominated by cases of COVID; interviews had to be

conducted electronically; focus groups were not possible; recruiting staff to complete the Safety Behaviour Survey had to be conducted remotely and affected the numbers returned.

Phase 1 Identifying individual and system barriers and facilitators to link practitioner roles

Phase 1a: Interviews with Stakeholders

Phase 1a aimed to seek views from all stakeholders involved in the nutrition and hydration of residents with dysphagia to ensure that a holistic picture of individual and system issues was gained. Perceptions of current dysphagia practice, the barriers, and facilitators to compliance with SLT recommendations from an individual and system perspective, and the system barriers/facilitators to establishing a dysphagia link practitioner role were explored through semi-structured interviews.

Stakeholders were drawn from registered nursing staff, healthcare assistants (HCA), managers, SLTs, residents/family members, GPs, and relevant non-clinical support staff from each care home and all gave their informed consent. Although we aimed to interview residents or their representatives this was not possible because the research team were unable to access the home or meet with residents during the COVID pandemic.

Interview schedules/topic guides were framed using the COM-B and TDF domains and reviewed by PPI co-applicant (Appendix 2.1). Where possible, interviews were conducted face to face, however, due to restrictions on visiting the care homes, several interviews had to be undertaken via video link or telephone. All interviews were digitally recorded and transcribed verbatim.

Phase 1b: Interviews with Link Practitioners

In Phase 1b) semi structured interviews with individuals performing a link practitioner role in other specialties were conducted to gain an understanding of how link practitioner roles operate and the factors that influence the efficacy of their practice. Given the absence of link practitioner roles in care homes settings, this information was sought from link practitioners working in acute care settings. The semi-structured interview schedules/topic guides were framed on the COM-B and TDF domains and explored how link practitioners negotiate organisational and professional barriers, how they acquire and maintain relevant knowledge and skills, how they build and maintain relationships with specialist registered practitioners (e.g., the Infection Prevention and Control Team) and the barriers and facilitators to working effectively as a link practitioner.

Link practitioners were recruited from professional and university networks with links to

infection prevention and control, tissue viability and nutrition and gave informed consent prior to the interview. Interviews were conducted either face to face or by telephone, digitally recorded and transcribed verbatim.

Data Analysis

Interview data was analysed by Framework analysis[100]. After familiarisation with the interview data, an analytic framework broadly based on the domains that underpinned the interview schedule, was used to organise the data according to key categories and a set of codes guided by the Theoretical Domains Framework generated and agreed within the research team. The codes were clearly defined and then systematically applied to the dataset using Computer Qualitative Data Analysis Software NVivo. The outputs were summarised into a matrix on a spreadsheet for interpretation and the development of explanatory themes (Appendix 2.2). Themes and associated barriers and facilitators were identified though discussion within the multi-disciplinary research team, which included lay members. Evidence of disconfirming data was actively sought and relevant participant quotes to illustrate themes agreed by the team.

Phase 2 Exploring current practice, identifying factors that influence resident safety behaviours and establishing measures of harm prevented.

Phase 2a: Observation of current practice

Non-participant observation was used to capture data on current practice in relation to the management of nutrition and hydration for residents with dysphagia care and compliance with the individual SLT recommendations for the resident. Residents who had dysphagia and had been assessed by a SLT were recruited to the study. Informed consent was obtained either directly from the resident, or for residents lacking capacity, from their nominated representative which in most cases was their General Practitioner (GP). Although observations had commenced before the COVID-19 pandemic, collection of observation data was paused for 5 months as researchers were not allowed to enter the homes. During this time 9 of the recruited residents died and in the context of the ongoing pandemic it was not feasible to recruit replacements. The observation data was therefore collected on a total of 11 residents, of which 7 were from home B as access to home A was not possible for the rest of the study period.

Based on the method described by Rosenvinge and Starke[47] the elements of practice relevant to the nutrition and hydration of residents with dysphagia were grouped into three categories 1) food/fluid modification, 2) swallowing strategies, 3) swallowing safety (Table 2.2). The recommendations made by the SLT were reviewed against the elements of practice in these categories. However, in practice, separate documentation of the SLT recommendations could not always be found (possibly due to the elapse of time since the last SLT review or hospital records not being transferred to the care home) and instead their recommendations were incorporated into the residents' care plan (CP). In addition, some CP included additional recommendations from the three categories of safe swallowing that were not specified in the SLT recommendations[77].

Some elements of care were difficult to differentiate during observations so were merged into a single element e.g., verbal, tactile and visual prompting. In addition, several items did not feature in either SLT or CP and so were not included in the analysis of compliance. Therefore, a total of 12 different elements of care were included in the final analysis framework (Table 2.2).

Since the recommendations made in both the SLT and CP tended to refer to only a small number of the 12 elements, care staff were also observed to adhere to elements of expected practice even when not specified in either the SLT recommendations or CP. Therefore, rather than indicating the care was 'not compliant' with recommendations in SLT or CP when the care observed complied with expected practice, it was categorized as being compliant with 'expected practice'. The criteria used to define this 'expected practice' was derived from RCSLT guidelines and are shown in Table 2.2. e.g., if no recommendations were made about food texture then a normal diet would be considered expected practice

Compliance was therefore initially assessed against the recommendations made by the SLT and CP, if the recommendations in these two documents were different then the SLT was assumed to be correct. If the element was not included in either SLT or CP, then where possible compliance was assessed against 'expected practice'. The 5 categories of compliance that were assessed and examples of how observed practice was categorized in Table 2.3.

Table 2.2: Framework for observation of safe swallowing practice

	Safe Swallowing Recommendations (from Rosenvinge and Starke)	**Amendments made for capturing mealtime observations**	**Criteria for 'Expected Practice' as defined by RCSLT (ref)**
Food and fluid modification	Food recommendations	Removed from analysis	
	Serving size/Portion size	Focused on portion	Small spoon – not heaped
	Texture (IDDSI Level)		Normal food texture
	Thickened fluids (IDDSI Level)		Normal fluids
	Drinking vessel to support swallowing		Normal (open) cup
Swallowing Strategies	Specialist equipment to support independent feeding	Removed from analysis	
	Verbal prompts	Merged to create a single category: Prompting	To prompt
	Tactile prompts		
	Visual prompts		
	Wait for clearing of throat		Pausing or pacing of mouthfuls
	Guide utensil/cup	Removed from analysis	
Swallowing safety	Alternate food and drink		Alternate food and drink given
	Posture		Resident upright (or as upright as possible)
	Alertness for eating/drinking		Residents awake during feeding
	Complete swallow before next mouthful		Complete swallow between mouthfuls
	Supervision when eating/ drinking	Merged to create a single category: Supervision, assistance and monitoring	Resident feeding supervised, assisted and/or monitor
	Assistance of eating/drinking		
	Monitoring eating/drinking		
	Ensure mouth clear at end of meal		Ensure mouth clear at end of meal
	Advice on managing coughing	Removed from analysis	
	Advice on oral care	Removed from analysis	

Table 2.3 Examples of Compliance Categorisation for Swallowing Safety: Posture

Compliance Categorisation	Resident	SLT Specification	Care Plan Specification
Element is referenced the same in both the SLT and the care plan	WJN39	Be upright for all oral intakes. Stay upright for half an hour post eating	Upright for oral takes, to stay upright for half an hour post eating
Element referenced in the SLT but not the care plan	MJ39	Upright 90 degrees	Not Referenced
Element referenced in the care plan but not the SLT	SM29	Not Referenced	Upright in bed for meals
Element referenced in both the care plan and SLT but does not match	AAA39	Ensure seated upright for all oral intakes. Stay upright for 30 minutes post eating	To be seated upright during and 30 minutes after his meals Ensure seated upright for all oral intakes. To be at an angle of 45 degrees throughout and for one hour after finishing their meal Ensure seated upright for all oral intakes.
Element not referenced either in the care plan or SLT	DG39	Not Referenced	Not Referenced

Data was also captured of the resident, the duration of the mealtime, the number and type of staff delivering care. Contextual data was captured by the researcher during the observations of nutrition care. Where possible, the member of staff assisting the resident with feeding was asked a series of questions about their training and knowledge of the care recommendations after they had finished assisting the resident to eat. These aimed to find out about their perceived knowledge and skills in providing care for the resident to help them eat and drink safely and their knowledge of specific SLT advice for that resident (Table 2.4).

Table 2.4: Questions on knowledge and skills of HCAs delivering care to residents with dysphagia

1. Have you received any formal training?
2. Do you have any training/ experience of dysphagia care?
3. Did you receive any guidance in feeding this resident?
4. Have you seen this resident's Speech and Language Therapy guidelines?
5. Have you seen this resident's Care Plan?
6. Do you feel able to give adequate care to this resident?
7. Do you feel supported (guidance, training) by the care home to care for residents with Dysphagia?

All data capture forms were piloted and revised following testing during January 2020 (Appendix 2.3). Main data collection was commenced in February 2020. The aim was to observe five separate episodes of nutrition/hydration care for each resident, however due to the access constraints caused by the pandemic this was not. Data from the observations were expected to generate compliance data on 2500 elements of care (5 observations for 20 elements of care from 25 residents). In practice, the limited number of both observation opportunities and elements included in SLT recommendations meant that compliance data could not be observed on this number of discrete elements of care.

Data Analysis

Data were analysed with SPSSv25. Compliance was reported as frequencies against each compliance category. The limited number of residents available for observation precluded the analysis of comorbidity, age, gender, staff type as independent predictors of compliance with recommended elements of care.

Chi square tests were used to determine if compliance with the element of care was more likely to occur if it was recommended in written documentation (SLT and/or CP) and whether care was delivered by single or multiple HCAs.

The findings of the observations of compliance were used to inform the selection of safety behaviours for the Safety Behaviour Questionnaire (SBQ) (Phase 2c).

Phase 2b: Incidence of lower respiratory tract infection

The main harm outcomes associated with poor nutrition/hydration care of residents with dysphagia are lower respiratory tract infection (LRTI) due to aspiration, and weight loss. Data on the population at risk and incidence of LRTI is required to inform the design of a study to test the efficacy of an intervention to optimise care of these residents.

Denominator data were captured by recording the number of residents present each day and summing the total number of resident days each month. New cases of LRTI, admission and discharges were identified by contacting the unit managers in each home, with new LRTI matched to the criteria for LRTI (Appendix 2.4). Data were also captured on new referrals to the Speech and Language Therapy (SLT) team. The aim was to collect 6 months of data but only 2 months data could be captured before both homes closed and collection of reliable data by phone proved to be impossible.

The incidence of pneumonia was determined as the number of cases of LRTI per 1000 resident days for each care home with 95%CI. Although it had been intended to calculate the incidence of admission, deaths/discharges, and new referrals to SLT this data was not considered to be sufficiently reliable as during the 2 months of data capture all these variables were being affected by the COVID-19 pandemic. The incidence of pneumonia was determined as the number of cases of LRTI per 1000 resident days for each care home with 95%CI. Although it had been intended to calculate the incidence of admission, deaths/discharges, and new referrals to SLT this data was not considered to be sufficiently reliable as during the 2 months of data capture all these variables were being affected by the COVID-19 pandemic. The records of residents with dysphagia who consented to participate in the study were also reviewed to identify episodes of choking, hospital admissions, and pneumonia and their weight on admission to the home. The intention was to estimate of any potential weight loss during their time in the home by recording their weight at the time observations were conducted. However, because of the difficulties of accessing the care homes for significant periods during the study we were unable to capture data on current weights for most residents.

Phase 2c: Resident Safety Behaviours Questionnaire

The Safety Behaviour Survey aimed to identify factors that influence healthcare practitioners' safety behaviours when feeding residents with dysphagia. It focused on target behaviours needed to deliver safe nutrition and hydration care of residents and was aimed at care workers rather than nursing staff.

Thirty-seven questions were framed by the domains of the Theoretical Domains Framework and informed by data obtained from mealtime observations and interviews with stakeholders in this study. The structure of the questions was adapted from the validated instrument used to assess safety behaviours of healthcare staff in relation to the management of patients with nasogastric tubes described by Taylor et al (2013)[102].

A preliminary list of 57 questions was reviewed by clinical and behaviour change specialists in the research team to ensure face validity and fit with the TDF (Theoretical Domains Framework) domain. Readability software was used to ensure that the language used in the survey was free from jargon and understandable for the target audience. Lay members of the Project Advisory Group provided additional comments. A 5-point Likert scale (1 strongly agree – 5 strongly disagree) was used to score responses. A combination of positively and negatively phrased items was used. Negatively phrased items were reversed scored.

A pilot survey of 38 questions was administered to a group of nursing associate trainees in their first year, this group was chosen as the students were all working as healthcare assistants in acute or community care. In addition to completing the questionnaire, the pilot group were asked to comment on the time taken to complete the items, the understandability, and accessibility of the language used in the questions. Items were refined following the pilot to further simplify technical language, remove repetition and improve clarity. The final survey (Appendix 2.5) consisted of five items in the domains of motivation and goals, and memory, attention and decision making; four items in each of the domains of knowledge and social influence; three items in each the domains of skills, beliefs about capabilities, beliefs about consequences, environmental context and resources and emotion and two items related to the action planning domain.

Surveys were distributed to care staff at four care homes, including care homes A and B who participated in Phases 1 and 2 and two other local care homes. Further participants were recruited online via newsletter advertisements and asked to complete the survey electronically.

Confirmatory Factor Analysis

Data were input into SPSSv25 and then analysed in Jamovi 1.6.23 making use of FIML (Full Information Maximum Likelihood) estimation in order to account for missing values. CFA was used to test a theoretically derived 11-factor model comprised of 38 items (Appendix 2.6). The model fit was tested using a chi-square goodness of fit test whereby an exact fitting model is rejected if p≤.05 [101]. In addition, Comparative fit index (CFI), and Tucker-Lewis Index (TLI) were used to account for model complexity with values ≥0.90 being treated as indicative of an acceptable fitting model[102]. The Root Mean-Square Error of Approximation (RMSEA) was used as an 'absolute fit index' with values of 0.05 or below considered indicative of a close-fitting model[101]. Combined values of CFI (>= 0.95) and RMSEA (<= .06) were used to determine if the fit was acceptable [103]. Post-hoc analysis was used to improve the model fit by inspecting modification indices (MIs) [104].

Phase 3 Stakeholder verification

In this phase stakeholders were brought together to develop consensus regarding the prioritization of target behaviours, intervention strategies and behaviour change techniques which will facilitate behaviour change in dysphagia care in the residential care setting. The original intention had been to ask the stakeholders to prioritise target behaviors, contribute to the selection of behaviour change techniques that could be used to bring about the target behaviours and to provide feedback on the proposed experience, process, and outcome measures. Due to the changes to the project because of COVID-19 restrictions this phase of the study was revised, and the stakeholder group was convened to consider the potential role of a dysphagia link practitioner in creating a safe swallowing culture.

Data collection

A focus group of a range of practitioners, managers, SLT and lay participants was recruited to consider the outcomes of phases one and two. The outcomes of phases one and two were used to develop a topic guide (Appendix 2.7) and participants were asked to consider:

- What level of staff (qualifications, agenda for change banding) within the residential care workforce would be best fitted to undertake the DLP role, how the role would be supported and whether the role required incentivisation.
- Whether a DLP needed to be based within each residential care setting or if a more dispersed model could be used e.g., shared between homes, based with the SLT or District Nursing team or within Frailty services.
- What system level changes needed to be in place for a DLP role to be successful e.g., which key stakeholders need to 'champion' the initiative, would digital solutions such

as App based guidelines and training materials be useful to allow ease of access and consistency of delivery.

- The acceptability, practicality, affordability and unintended adverse or beneficial effects of introducing a DLP role.

An overview of the study's findings was presented to provide a context for the focus group discussions. The participants were divided into mixed groups, facilitated by a member of the research team, to consider each of the questions. Key points from each member of the group were written on post-it notes and fed back for discussion in the wider group. Field notes were taken to assist with the structuring of the feedback for the final report.

Chapter 3
Results: Phase 1

Phase 1a) Interviews care staff and managers from care home A and B

A total of eleven staff from across the two care homes participated in a semi-structured interview. These comprised of three healthcare assistants, three nursing staff, four senior clinical staff members (e.g., senior nurse, occupational therapists) and two senior non-clinical staff (including a kitchen manager). The following themes emerged from these interviews and have been categorised under the relevant component of the Theoretical Domains Framework which are

- Knowledge, skills, and beliefs about capabilities
- Training to support safe feeding and drinking
- Professional role identity and decision making
- Food and fluid modification - a key strategy
- Environmental context and resources - Lack of time, Information from hospitals, Families, Modified food, Financial resources, Equipment to support feeding
- Emotional Impact of Caring
- Perspectives on the role of a dysphagia link practitioner

Knowledge, skills, and beliefs about capabilities

As might be expected there was a variation in level of knowledge about dysphagia between HCA and the qualified nursing staff. Some HCAs had heard the terms dysphagia or swallowing difficulties but knew little about it:

> *"Swallowing difficulties? No, I don't know anything about that."*
>
> -Junior HCA 1

Other HCAs had a better knowledge but in the main associated dysphagia with the need for dietary modifications:

> [dysphagia means] "*people with swallowing difficulties that need help swallowing... normal diet, helped with soft diet and then a puree diet, and then maybe thickened fluids."*
> *- Junior HCA 2*

Nursing staff were able to articulate something about the pathogenesis and implications of the condition:

> *"Some patients or residents, they have it due to underlying illness like stroke or even cancer and so that impaired their way of swallow. So, it needs to be assessed so they can have risk of choking and aspiration*."
> - Nurse 1

> *"the functional aspects of peoples organs and swallowing abilities the muscles and the reflex. And then there's the more the cognitive aspect, with people not doing, I have to say no swallowing, not consciously being able to swallow any more or having food in their mouths- forgetting to chew or forgetting to swallow"*
> - Senior Clinical Staff 3

> *".. it's like a swallowing difficulties with food and fluids and that can lead to malnutrition chest infection choking"*
> *- Nurse 2*

And although nurses had a limited role in terms of supporting residents to eat and drink, they also recognised that dysphagia affected how a resident's medication needed to be administrated:

> *"with the feeding we are assisting them time to time, but even with medication you know so we are the one administering their medication and if they have problem with swallowing some of them, they have like their medication crushed".*
> *- Nurse 2*

Some staff discussed the knowledge and skills required to support a resident with eating and drinking safely, including behaviours such as pacing and observing.

> *"when you are doing feeding somebody, take your time, make sure they swallow the food one spoonful at a time before you go on to the next one."*
> *- Junior HCA 2*

> *"I believe* [the skills] *you need to have is to be very slow and steady and very patient you have to be patient and then you need to observe*."
> - Senior HCA

> *"to stay in the upright position, to eat or drink slowly and to stay in the upright position at least 30 minutes after they finish eating and to be observed to not keep food or liquids in their mouth to become danger later"*
> - Senior Nurse 1

> *" ...to make sure they are sitting in an upright position, that a slow pace, making sure that each input is being processed by the person before another spoon is given or*

another drink is given. It's very much making sure the person is swallowing everything before continuing. If the person is showing signs of distress or showing signs that the fluid or drink is not going down the right way to obviously give it a few minutes pause and obviously if it doesn't settle to discontinue the session"

- Senior Clinical Staff 3

"If you take your time to read it the way they swallow, the way they move their tongue you can be able to know how much quantity they can swallow at a time. So, you can gauge it, to be able to know what amount of food or fluid they can digest or can take in at a particular time."
- Senior HCA

From the SLT perspective, they felt that nursing staff knowledge on thickeners was good but less so for dietary modification.

"I feel confident that they were following in terms of thickener recommendations and to their knowledge trying to follow the diet consistencies, but I think they lacked knowledge exactly sometimes on what a level five diet looks like or a level six."
- SLT 1

Experience in caring and/or working in a care home setting was an important factor for HCAs in how they acquire their knowledge and skills :

"It's just I've worked in care for many years, [I] just take my time …. if you're helping somebody with their meals, take it slowly and make sure you can see the food going down and talk. They can tell you; [the resident] can tell me if she's swallowed it.
- Junior HCA 2

"…because I have been doing this since I was 20 years old, I looked after my granny"
- Senior HCA

"it comes probably with experience. So, I think if you're fortunate [you] get the same care assistant three days a week four days a week maybe that person will get to know what works with me and what helps me get the most food in in the safest way, but the reality is of course I probably don't get the same care assistant four days a week because of Rota patterns".
- Senior Non-Clinical Staff 1

Carers who lacked this broader experience-based knowledge about how to support residents with dysphagia expressed confidence in their capabilities when caring for the resident

because they perceived dysphagia care to be adding thickener to fluid. If unaware about other key strategies such as positioning, then they would not recognise the need for these to be implemented.

Alongside using thickeners, converting the resident's diet to pureed food was seen as the main strategy for managing a resident who was having difficulty swallowing.

> *"it's very easy, if they need help, we change the meal from a soft to a puree diet."*
> - Junior HCA 2

Training to support safe feeding and drinking

In terms of acquisition of knowledge and skills, the care certificate was perceived to provide the framework for training of carers, although the certificate standard does not include any information related to caring for residents with dysphagia and the strategies required to safely support their nutrition and hydration.

> *"The carers have to go through this care certificate book, so part of their care certificate competencies, one of them, is fluid hydration nutrition…. the knowledge theory we have to reflect in that care certificate book, plus the observations so that before we sign of the care the new members of staff from probationary period it's one of the observations we have to do."*
> - Senior Clinical Staff 2

It was not clear how training on the specific problems of dysphagia and the key strategies for supporting residents with dysphagia to eat and drink safely was delivered

> "So, they are trained, specific training on hydration they do cover dysphagia, and for example preparing thickened drinks and following prescriptions in that respect, liaising with the kitchen for the specific DSI levels of the food consistency."
> - Senior Non-Clinical Staff 1

One HCA stated they hadn't had any training another stated they had a lot of training

> *[What kind of training?] "manual handling, fire training and that food and safety"*
> *- Junior HCA 1*

> *"there's a lot of training and they say we should go back and read and read and read and then we are still continuing doing some e-learning online."*
> - Senior HCA

References to training on dysphagia made by care staff suggested this training was only focused on food and fluid modification and the application of the IDDSI recommendations.

One SLT explained that they were not responsible for the training of care home staff and that the training for care homes was focused on food and fluid modification and delivered by an outside agency:

> [they get] *"introduction sessions so they go through the IDDSI guidance. They [also] go through kind of what the swallowing problem is and signs to look out for. Like when to refer to speech therapy really. ."*
> - SLT 2

Although nurses were clearly knowledgeable about dysphagia, one respondent remarked that dysphagia training wasn't really for nurses as they were not the ones assisting the resident with eating and drinking and that the training about food modification and thickeners was more appropriate for the HCA staff

> *"…I will not attend that training. I have enough other training that I have to go this week, so I think it's not for the nurses. It's more for the carers to know how to assist them [the residents] you know with feedings and drinking. You know I think it's also the puree and thickened fluids, how to mix it properly, what [does] the levels mean, like level 1 level 2 and everything.* [showed IDDSI level chart – pointed to change that included new more distinct levels i.e. minced and moist versus soft and bite-sized]."
> *- Nurse 2*

However, some senior staff interviewed recognised the need/importance for more specific training on the causes of dysphagia , particularly as the mechanisms needed to support eating and drinking safely could differ depending on the underlying problems:

> *"If you're able to understand why the person is having swallowing difficulties ……. whether it's something more cognitive or something more functional. Let's say if it's something more cognitive then it's easier, they can be reminded and encouraged to swallow, encouraged to chew. If it's' something to do more with the structure of let's say the throat, then it becomes more difficult to address and sometimes it's both."*
> - Senior Clinical Staff 3

> *"…at least one or twice a year for the staff not only for the carers the nurses as well [should] have training here."*
> - Senior Nurse 1

One SLT explained that they were not responsible for the training of care home staff and that the training for care homes was focused on food and fluid modification and delivered by an outside agency:

> [they get] *"introduction sessions so they go through the IDDSI guidance. They go through kind of what the swallowing problem is and signs to look out for like when to refer to speech therapy really."*
> - SLT 2

And more practical guidance on strategies that can be employed to help residents to eat safely were likewise identified as necessary:

> *"lots of the feeding techniques I think aren't followed over because the staff aren't trained to feed people, so they don't understand there's so much in it. You can make such a difference with a good quality way of feeding someone you can really help their swallow with a lot of kind of sensory changes and setting up the meal. Just supporting someone's arm rather than coming at them with food when they don't know what's happening but that's a real lack of training and understanding of what it's like to be fed."*
> - SLT 3

Professional role identity and decision making

For nursing staff, decision making was driven by instructions/recommendations from SLT, and these would be incorporated into care plans, although it was also recognised that obtaining specialist advice from a SLT might take some time:

> *"they usually come with the action plans and everything with those, you know instructions like how…many scoops to use the thickness if we have to use it."*
> - Senior Clinical Staff 2

> *"minimum time is I think is 3 days if you're sending urgent referral. But if it's not urgent referral I will send to them [SLT] the information and they will assess the referral and they will say like okay this is not urgent you know, and it can take 2 weeks [for SLT] to come see them [the resident] or they will give you some recommendation over the phone without seeing the person"*
> - Nurse 2

A resident's care plan would then be used as the predominant vehicle for conveying information about that resident to the care team. However, the need for verbal communication with staff on several separate occasions was also recognised as necessary to ensure that all the staff were made aware of the recommendations.

> *"when they [SLT] come and they're extremely helpful they're extremely thorough also, and then … the next challenge is handing over all the information to the care team and that includes nurses. Unlike hospital we cannot put signs in people's rooms*

> *and posters, so that's a great thing in hospital you go to the persons bed and you've got posters behind saying well whatever they need or shouldn't have and it's very clear very quick. But for confidentiality reasons this is not something we allow to do in nursing homes. So, it is obviously included in persons care plans but also included in handover but also it needs to be discussed on several handovers until the whole team has been made aware"'*
> - Senior Clinical Staff 3

Unlike hospital settings, where signs are often used to convey important patient care information, this is not a strategy that care homes are encouraged to adopt which makes the need for verbal communication during handovers key to the transfer of information.

> *"that [not being able to display information in the resident's room] is a frustration and therefore requires even more effort of communication during handovers and encouraging people to read the care plans obviously."*
> Senior Non-Clinical Staff 1

Communication generally occurred verbally in a daily handover meeting where questions could be asked or information about SLT recommendations shared:

> *"There is good communication because every morning we gather in the lounge to discuss about what is necessary and sometimes they do raise some kind of questions."* [about SLT recommendations].
> - Senior HCA

> "the nurses take the instruction you know draft the care plans and give the handovers."
> - Senior Clinical Staff 2

The information included in the handover meeting would include changes to residents' usual care or details of residents with specific care requirements:

> *"it's quite different between the normal feeding and a specialist feeding with for somebody you know, looking after somebody with a specialist instruction, so that gets documented in the care plan handed over if any new changes and especially if any new member of staff are starting, these are the ones that we highlight."*
> - Senior Clinical Staff 2

More detailed information than there is time to verbally hand over may be included in the care plans and this was acknowledged. Electronic care record systems at Care Home A were designed to help ensure that changes in the care plan could be flagged in order to communicate electronically directly to each carer. However, as the carer had to acknowledge

in the system that they had read each flagged change, it was more practical to restrict its use to major changes in care rather than every edit made to the care record. The managers also recognised that HCAs rarely looked at the care plans:

> *"consulting every residents care plan at the start of the shift would be an unrealistic expectation. I mean, because there are changes in the resident's condition whether it's their mobility or their management in their pressure managements or eating and drinking. So, that's why it is a verbal handover which gets people started and then throughout the day we do encourage carers when they have a moment to go and read care plans… But practically speaking if a shift starts at 8 and then breakfast starts within the next 30minutes there wouldn't be time to consult care plans at that time."*
> - Senior Clinical Staff 3

> *"we know that care assistants do not read care plans, we know that even if they do read it even with the best of intentions when they set out in this job, they probably get four, five , ten weeks down the line and do they read it every shift?*
> *… no, they don't, do they read it even once a week?... no"*
> - Senior Non-Clinical Staff 1

Electronic care record systems at Care Home A were designed to help ensure that changes in the care plan could be communicated electronically directly to each carer. However, as the carer had to acknowledge in the system that they had read each change, it was more practical to restrict its use to major changes in care rather than every edit made to the care record. Therefore, the HCAs predominantly relied on verbal communication from nursing staff to inform their decision making:

> *"Some of the residents we give tea and coffee we mix thickener in and we give it."*
> [how do you know how many scoops?] "*The nurses they mention it".*
> - Junior HCA 1

> *"I'm told what to give I'm told if it's a soft or a puree meal to begin with, and the drinks are thickened or not thickened but the nurse tells me so it's all in the care plan or the nurse will tell me."*
> - Junior HCA 2

Care plans were not generally mentioned by HCAs as routinely informing decision making, except if it was a new resident whose care, they were not familiar with:

> *"I check the care notes and speak to the nurse before I start, but that would be the same - go slowly and speak to the resident as you're going and small spoonful's and*

make sure they've swallowed it before I carry on."
- Junior HCA 2

Management at Care Home A have created and implemented a "take ten" session to disseminate verbal knowledge of individual residents' to a wider number of care assistants. A nurse gathers a group of care assistants and they take ten minutes during a calmer point in the day to briefly share ten things about a specific resident such as their individual needs or their likes/ dislikes. With the intention that care assistants will remember the information next time they are working with the resident. The manager discussing the take ten scenario uses the example of flavours that a resident will or will not drink.

"Because it's in a very small group there may only be four or five people there for ten minutes. I might know everything about the resident and the other four might know nothing. But because I'm verbalizing it out loud and the nurse is documenting it on the form the other three hopefully are absorbing it by osmosis. They get to hear it, they get to think oh yeah I'll try and remember that next time I'm working with that resident. You know, don't offer him lemon juice thickened because he won't drink it, but he will drink it if its orange."
– Senior Non-Clinical Staff 1

Verbal communication between the HCAs themselves as a team was also seen as being important as a way of ensuring that work got done and that less experienced staff learnt what to do:

"some of these staff they are proficient in trying to know things quicker so they can progress, [and] those that are lagging behind, they can tell them this is what you need to know if you are in this situation…. just like teamwork you know carrying people along you know, within the team, within the workers. Staff they need to have some kind of communication among themselves."
- Senior HCA

Familiarity with the residents was an important determinant of how HCAs delivered care, both in terms of knowing what was usually done for that person but also developing experience of how to best support eating and drinking safely.

"You get to know them, and you know their ways".
- Junior HCA 2

Other prompts were also used to make decisions about the care of a resident with dysphagia:

> *"…you might forget but as soon as you go to the residents room you know it's there …. then if they are on thickener the thickener is normally next to the fluid so that can also prompt you to say ah ok, this one is on* [thickener] *because they say why would the thickener be next to the fluid if they are on normal fluid..."*
> *- Nurse 1*

Training of more junior or inexperienced staff was seen as being a key part of the senior HCA role:

> *"it's very important to train your staff and to let them have the confidence and [also] to support them when they need support…"*
> - Senior HCA

Nursing staff saw their role to be one of monitoring, both to ensure the resident was being properly supervised during meals and to check the recommended strategies were working, and responding to problems when alerted by the carers

> *"so, the carers they know better, they notice when [the residents] have an episode of choking, so I prefer to go examine them after that'…. 'I'm trying to observe and check the way they are eating and drinking, especially if they are at risk."*
> - Senior Nurse 1

> *"we allocate carers, …… I'm overall supervising so they make sure that if they've got five residents how many of them have dysphagia make sure that their food is coming so like the menu today, so they go around them to check you know, ok this person has dysphagia, ok mashed potatoes." …. 'we do food charts as well most people that's on dysphagia they're on food chart so that we can actually check yeah so this is what they eat and everything so if they are losing weight then we can actually check how much they have."*
> Nurse 1

Food and fluid modification - a key strategy

Converting the resident's diet to pureed food and thickened fluids was identified as a key strategy employed by nursing staff for managing a resident who was having difficulty swallowing and/or observed to be coughing. Staff used their clinical skills and judgement to make decisions about a resident's care whilst waiting for an SLT assessment.

> [If a resident is noticed having swallowing difficulties we would] "*report them straight away to the speech and language therapists by referring them but meantime our policies say that you can change the diet to them to go from normal to soft…..we can use maybe just a scoop for you know a 100/200mls to see, and then to wait for*

> *the speech and language therapists cause it's quite it's taking long to get an answer from them, it's taking around like 3 days to have a phone call back from them"*
> - Nurse 2

> *"If I'm giving them fluid and I see that they are coughing on stage one I can use my clinical judgement and a description to step into stage two then after that do the referral for speech and language therapy to come and see them."*
> - Nurse 1

One unit manager saw fluid modification as a key strategy, but which could not be initiated without a prescription:

> *"obviously we can't prescribe or give thickeners without it being authorized so it does put the carers sometimes in a tricky situation, where they know they are giving fluid, which is not what the person potentially needs because they've not been assessed yet by SALT."*
> - Senior Clinical Staff 3

Staff would be quick to attribute episodes of coughing to dysphagia requiring an SLT referral:

> *"sometimes, when we are giving them water you can see that their face is getting red. Yeah, so that happens and ok, I won't be giving them this again I need to get them assistance."*
> - Nurse 1

However, food modification was something that was perceived to be easy to initiate:

> *"we can agree with the family to attempt to give a pureed diet because that's not something that requires a prescription."*
> - Senior Clinical Staff 3

> [Managing problems with swallowing] *"it's very easy, if they need help, we change the meal from a soft to a puree diet."*
> - Junior HCA 2

Some staff recognised the need to assess the reason for the coughing before taking the step to refer to SLT:

> [If] "*in the morning she had a cough and at lunch time you notice again, so it's a question there, why what happened? So, then you will assess to see what is wrong, I will see to the resident, I will try to assist with the feeding or those that have capacity that are independent with eating and drinking, I will monitor them to see how,*

> *because some of them will have this coughing because they are eating too fast or some of them because they're holding their food in their mouth."*
> - Nurse 2

One nurse felt that there were limitations with the SLT review when swallowing problems were identified :

> "*What I notice, so I know that you know for elderly they have just like a visual assessment they don't have any physical examination like medical examination maybe x-ray to see. So, they [SLT] will just say of puree food thick fluids but maybe it's something else?"…."We had that like 2 years ago we had to send someone to, so the speech and language therapist did their job properly, so she refers him to the GP to have an x-ray and they found out that it is a cancer that was the problem with swallowing."*
> - Nurse 2

However, from an SLT perspective, there were complexities that needed to be considered when assessing a care home resident. Outpatient appointments with transport either side can last up to 3 hours. Acute clinics often stipulate patients need to be able to sit and transfer unsupported which would not be possible for many. Although access to such chairs may be available this is not always a commissioned service that care homes can access.

> *"It's quite good to see how someone's fed. So, try and time it with a mealtime, just to observe what happens because you can pick up on a lot just by watching. Then we'll try and see how the persons muscles are moving, if there's any kind of neurology so if maybe facial weakness? the tongues not moving? any issues with the throat we can see at bedside? Then, if we're still not sure we've got the instrumental assessments, which for us is just video. We don't have access to anything else, but then within that especially the care home residents it's not maybe in their best interest to get them into hospital for a test"*
> - SLT 3

and also, that although SLT may not be able to help a specific resident it was important to ensure that they had done the right thing and sought advice:

> *"I sent the referral for one of the residents and I explained the way we were giving her food because she can't eat by herself and we received a letter to continue in the same way because they can't do anything because of dementia. So just to continue and to observe and to check her mouth because she was holding fluid and food in her mouth for more than 1 hour and just to remove the food. Now she is much better but yeah, I did it, I wanted to be covered."'*
> - Senior Nurse

The SLT interviews highlighted some practical issues with the referral process and how limited the information conveyed by staff about the resident can be in the current process of referral to SLT. The interviews similarly highlighted where SLT felt referrals may not be necessary, for example in the management of residents with progressive deterioration in their condition, such as individuals with end stage dementia.

Care home staff were understandably concerned about their residents with dementia who were taking a significant length of time to swallow. A SLT reviewing a referral would focus on risk of choking and/or risk or aspiration. The priorities of care staff and SLTs may therefore not always match.

> *"quite often the referrals we get are quite poor. So, there's not a lot of information on them. It quite often doesn't show an understanding of the swallow, so you might get that the person's choking on drinks. You can't choke on fluids it doesn't block your airway, so you kind of think, ok well they're probably really coughing but it isn't choking .. That's actually why we do we always phone the homes and get a little bit more information. When you phone it's then difficult because you need to try and get hold of the right person with the right information"*
> - SLT 3

> *"You know for example, if it's someone with dementia and they say "oh she can't swallow at all" it's quite often the referral. When we phone up, it's part of dementia and it's a normal progression for the disease. It's very difficult to manage and there isn't anything we can do by flying out there, we'll just watch someone with food in their mouth. So, what we would do is give some advice and then decide whether we think they need a twenty-five day wait or we would see them immediately "*
> *- SLT 3*

Environmental context and resources

Lack of time

A major problem for staff in supporting residents with dysphagia to eat and drink safely was lack of time, although one interviewee felt improvements could be made with training and increased staffing.

> *"I can guarantee that from doing the 12 hour shifts the carers are running around. After breakfast they're giving personal care non-stop until lunch then lunch kicks in, break, go back for another round of personal care its supper time and then it's the end of the day."*
> - Senior Clinical Staff 3

This was frustrating for staff who wanted to do the job properly but did not have the time

> *"you want to do something, and you want to do it in a proper way, and you can't because of time management because during the morning rush you've got to do this this and that you know we have 2 hours for us to get them up and ready 8 to 10."*
> - Senior HCA

> *"We can improve whatever we do, it is for us to get more training and again to get more staff we need more staff we have loads of work at hand to do we don't have time and we get tired sometimes when people get tired, we get frustrated and then we make mistakes when you have a lot of things to do."*
> - Senior HCA

The mornings were particularly pressured and if they were short of carers then the nursing staff had to help so that food did not go cold

> *"morning is hard because, morning there's a lot of medication. Sometimes, it takes about like three hours, so we are not really able, you know, like me the nurses you know to help, and these are the challenging areas if the carers are short of staff and you know we don't want the food to be sitting down cold, so we actually have to get them feeding first then we do their medication."*
> - Nurse 1

The pressure of work and the adoption of a broadly 'medical model' may contribute to the perception that care was organised around getting tasks done rather than considering the more holistic care of residents

> *"you've got some senior carers and some nurses who are so task orientated and this is not just [Care Home Name] I've seen it elsewhere, and I've seen it in my mothers and fathers [care home] when they were very, very ill. So task orientated, it's all about quickness and getting things done rather than considering"*
> - Senior Clinical Staff 1

> *"Yeah, nurses are very medically model and that filters down into care group. Yeah, by its very nature of a nursing home, yeah how do we stop that medical model? and make it more a person-centred individual model which is why OTs are always falling out with nurses."*
> - Senior Clinical Staff 1

Information from hospitals

The lack of communication from a hospital about an individual with swallowing difficulties being transferred into the home created problems for carers and could be very time consuming to resolve:

> *"We recently had a transfer from someone who was in hospital and on the discharge letter It just says the person is on thickener. There's no SLT report, it's not included in the listed medications for the person, and they don't provide thickener upon the discharge and then it's something for example that could take nurses quite a long time to resolve."*
> - Senior Clinical Staff 3

This lack of information often meant that the home had no clear idea about the decision making in relation to the management of a resident with dysphagia:

> *"You might see in the letter 'risk feeding' acknowledged but there's no traces of discussion with the family or a mental capacity assessment or a 'in best interest' decision so we're taking this information as valid but without then being able to substantiate the process of why the person was acknowledged 'risk feeding' or any other regime*."
> - Senior Clinical Staff 3

In these cases, the role of someone based in acute care who was responsible for liaising between the hospital and care homes made a big difference to the experience of the care home in managing this lack of discharge information

> *"It's quite difficult to get our hands on SLT reports from hospitals… if its people coming from [acute Hospital X] we actually have a frailty matron which liaises between [acute Hospital X] and here and we also have the consultant which also does work in the community so we have these points of contact which can very, very rapidly give us access to the information. When it's not [acute Hospital X] then we experience what pretty much what anyone who calls the hospital faces - you struggle to find the ward where the person was and then you can't speak to anyone who is able to assist with the matter, so it just takes a lot a lot of investigating work to get the information*."
> - Senior Clinical Staff 3

Families

Families sometimes created additional challenges by not following the recommended care strategies:

> *"We had a resident that is on like a puree diet and thick[end] fluids and the family was giving her ice cream. It's quite difficult, the family was aware of her condition. We advised them she can have yoghurt with thickener because [the resident] had regular chest infections because of aspirating. When they [residents' family] don't understand they say this is my love, this is my dad's last days, so we wish them to*

> *have something sweet to eat or, so they are taking the decision you know for them they decide for them because most of them in this care home they have dementia, so they don't have the capacities to decide."*
> *- Nurse 2*

Families also had expectations for their relatives that could not be met:

> *"for example, when someone is quite drowsy and the carer feels the resident is not going to be able to eat more or is coughing and the family insists no, no, no, you have to wake the person up, you have to feed, you have to stay an hour and a half with the person. And practically speaking we can't. We don't have the resources and I don't think anyone has the resources to sit next to the person for an hour and a half just to assist one person and that's the reality"*
> - Senior Clinical Staff 1

Modified food

Staff felt that providing food for residents with dysphagia that was appetising was not easy due to the appearance of pureed food:

> *"it's blend[ed] they can't see the meat you know so they need a lot of encouragement you know 'this is nice' because everything is blend[ed] the pieces just paste like cream you know so I mean personally if it was myself psychologically if you look at it it doesn't look appetising doesn't it because everything is blend[ed]."*
> – Nurse 1

The kitchen manager highlighted the use of moulds to attempt to give pureed food an improved appearance

> *"Puree is just pureed food, but we mould it and put it on the plate… we introduced this moulded one, so with people who are on puree they eat more probably 3 times the normal food because its pureed…." The soft is different to the puree the soft could just be soft like bite-sized or less than bite-sized and really like in small little portions not like normal stew we have the beef just like maybe 2cms by 2cms its much smaller."*
> – Senior Non-Clinical Staff 2

A lack of specific training for kitchen staff on providing for residents with dysphagia was identified:

> *"I got knowledge, but I have no training I come from a completely different background of cooking it's the first time I've worked in a care home…… since I came in no training has been given to me nothing just thanks to my own knowledge and*

> *my things because they might just think that kitchens just like this magic room like that do this and the dishes"*
> – Senior Non-Clinical Staff 2

As were the challenges of creating purees:

> *"There [are] some carbs that you can't puree you know like pastas. if you add vegetables or something to break the molecules it won't be gooey. It's the same for like dough sometimes, if it's gooey it depends on how much of [the] ingredients you put in it."*
> – Senior Non-Clinical Staff 2

This demonstrates the need for kitchen staff to have training from SLT in understanding the requirements for modified food:

> *"we then did a bit of work with the kitchen to say look we need we need these diet options available, and they need to come preprepared for the unit and so I think that did help. It was just clearer then for the staff but that then brings on different issues, around kind of people having a varied diets and food looking appetizing and smelling appetizing that sort of thing"*
> - SLT 2

The kitchen staff have an important role to play in creating appetising meals and can be proactive and interested in in improving the resident's mealtime experience:

> *" I go upstairs, and I speak to the residents, so I ask them, and I see and sometimes I ask the staff as well if they are eating. If I feel it's less than average or they not enjoying it, I tend to change it you know a completely different one for main course or even like dessert."*
> – Senior Non-Clinical Staff 2

Financial resources

Resources in care homes are extremely tight and one manager explained how they needed to reduce staffing to the minimum

> *[Having a dysphagia link practitioner] "it's not affordable and it's probably not affordable in a normal time, but at the moment I spent this morning talking to any number of staff, not carers and not nurses, saying actually things are so tight we need you to work 2 or 3 hours a week less please" ….."Because financially, …… here we're at that low level, on our knees saying we're not making enough to pay the bills and that's the same in most care homes I would suspect"*
> - Senior Non-Clinical Staff 1

The financial allocation provided for creating meals for a resident was also very low

> *"It's only a very little budget they give me £3.80 for the whole day."*
> – Senior Non-Clinical Staff 2

Equipment to support feeding

Equipment such as adapted spoons and plate guards were recognised to be helpful to enable residents with dysphagia to eat more independently. However, although they were frequently ordered they generally disappeared fairly quickly, and the carers were not always aware that they were available to be used:

> *"then we will always provide it, but I could probably put a bet on that [if] we provide it today would it still be in four weeks' time? or does it just get lost? You know left handled spoons or thick handled forks all of that stuff … again, we lack the consistency of continuity of carer so I'll know there's a special plate and a fork and I'll go find it and use it, but tomorrow another carer might not have recognized that even though it's in the care plan".*
> – Senior Non-Clinical Staff 1

> *"The special plate that then goes in the dishwasher and ends up coming back from the kitchen, but it goes to the third floor instead of the second floor and at that point nobody knows who it belongs to, it's never seen again until somebody says but he's meant to have a special plate but that could be several weeks down the line"*
> – Senior Non-Clinical Staff 1

> *"You can get those special spoons, they just disappear. I give them out the special spoons which when you're a helping someone coz most people when they feed with a spoon, they put too much food on the spoon"*
> - Senior Clinical Staff 1

The arrangement of tables and chairs in the dining room was also identified as a factor in encouraging and supporting safe nutrition. The Occupational therapist pointed out that the round tables made it difficult for staff to get close to the resident to feed them. The kitchen manager noted the importance of the eating environment:

> *"to me I mean if you put nice rooms, nice dishes if they provide them you know it'd be different it would be a different experience."*
> - Senior Non-Clinical Staff 2

> *"[the home] has round tables in the dining room… because they're not straight edged even if you get somebody close to [the table] they can't support their arms [so] it's harder than sitting eating at a straight edged table"*
> *– Senior Clinical Staff 1*

Emotional Impact of Caring

Caring for residents with dysphagia could be stressful for the carers and something that some found emotionally difficult

> *"particularly people are coughing a lot, there's a lot of overt signs of struggling [to swallow]. Carer confidence could be really really low, because they don't wanna do harm ,yeah they don't want to feel like they've been the cause of that. So …some carers will really want to be engaged and be involved because they want to support that person, other people don't want to join me on sessions because it's really stressful for them, and I guess maybe [they're] worried that I'm kind of looking at incompetence potentially"*
> SLT 2

Time pressures could also be emotionally challenging for carers:

> *"I mean they [carers] all wish they had more time. But, they [are] also conscious that if you spend an hour - let's say, if you have two hours to assist, thinking random numbers, three people and the first person takes an hour and thirty minutes then you have thirty minutes for two other people. I think that's the frustration, which can upset the carers you know - I can't do anything you have to share your time between all your residents otherwise it will have an impact*."
> - Senior Clinical Staff 3

and the experience of seeing a patient aspirating can be very distressing for the staff caring for them:

> *"sometimes, you can take all the precautions and give the best care possible the resident might still end up aspirating or coughing. I've seen some carers feel terribly, terribly, terribly guilty in that respect. And you can assure them that they couldn't have done differently, but again when you feel you've caused harm to someone, you can rationalize it as much as you can [but] it goes against what we're trying to do here."*
> - Senior Clinical Staff 3

The anxiety these negative feeding experiences created motivated one care home to seek more specialist training from SLT and commit to releasing staff to attend this training:

> *"I think some care homes where they've had previous choking instances, they were very much I think because of their anxiety around feeding they took onboard the guidance really well and some managers wanted to organize training sessions, so I'd do a virtual session"*
> SLT 1

Perspectives on the role of a dysphagia link practitioner

The term 'link-practitioner' (LP) describes a registered or non-registered healthcare practitioner who takes on an enhanced specialist role to act as a bridge between specialist teams/practitioners and frontline staff in a particular care environment (REF 58.59.60) There were mixed views on the role that a dysphagia link practitioner might play in enhancing the care of residents with dysphagia and some of the challenges that would need to be overcome.

The care home manager could see advantages associated with the role:

> *"I think the idea of having an attached specialist or champion, we would use it in the same way we do moving and handling. We would have that person roaming the floo0,r especially at mealtimes, and just observing, educating and training on the job really".*
> – Senior Non-Clinical Staff 1

However, there was a recognition that it would require more advanced skills than that of an HCA if they were to have sufficient authority and independence to perform the role

> "*it's more than a care assistant it's less it's far less than a nurse umm the nearest I can equate it to I don't know if you've met [Name] who's our activity coordinator"*
> – Senior Non-Clinical Staff 1

> *"nurses tend to be more recognized and maybe have more authority in terms of passing on messages. I mean, we've seen in the past, we've tried for carers to be continence champions or PPE champions or things like that but that doesn't seem to roll out in the way we expect it"*
> - Senior Clinical Staff 3

and there was a risk that such a role might distort care activity if staff thought they could draw on a 'specialist' to feed more difficult residents:

> *"they can't do it all and they can't do it on their own. What we would want is a specialist and they say d'you know what [Resident A] is really difficult to help with feeding, we'll just get [the specialist] to do it when they come around*"
>
> - Senior Non-Clinical Staff 1

Nurses perceived the value of the role more in terms of drawing on expert advice while waiting for an SLT assessment and in making correct referrals to SLT and in advising other members of the team.

> *"I think if we have that link practitioner for dysphagia its better. So, while we are waiting for the SLT that person can come in or they can liaise [with] who will come first because sometimes referral can take very long"*
> - Nurse 1

> *"Would be better because they [specialist] can teach the other carers. They can show [the carers] how to assist with eating and drinking, so [that] would be perfect"*
> - Senior Nurse 1

> *"I think there might be an interest in having someone with a bit more knowledge who well, I don't know, if they'd be able to differentiate between aspiration and a COVID cough*.
> - Senior Clinical Staff 3

And a junior nurse also perceived the role more as a care-home based dysphagia link practitioner

> *"If [they dysphagia link practitioner] will have a proper training and will pass the knowledge. [If they] will pass the exam and prove that they are a good speech and language therapist, so we don't mind"*
> - Nurse 2

However, problems with the role were identified. One manager thought that it would be an unnecessary layer of communication between the unit and SLT and preferred to maintain direct communication between the carers, suite managers and SLT:

> *"I would still prefer to leave those responsibilities with the suite manager because they know their residents better. And they know the day-to-day handover you know, details how the day was, how they are managing"*
> - Senior Clinical Staff 2

And another recognised the problem of relying on individual for specific expertise:

> *"when you rely on only one person who has unique knowledge you just need that person to go off sick for a couple of weeks or go on holiday or leave and then those systems on which we rely – which we've implemented and been relying on don't work anymore and then it leaves a bit of a void and creates more problems"*
> - Senior Clinical Staff 3

The difficulty of freeing up time of care staff to devote to the additional role of link practitioner was seen as a major barrier, in the context of adding pressure to already thinly stretched resources

> *"one [problem] factor is the workload. I mean I can guarantee that from doing the 12 hour shifts the carers are running around. After breakfast they're giving personal care non-stop until lunch then lunch kicks in, break, go back for another round of personal care its supper time and then it's the end of the day. Freeing someone will always have an impact on the rest of the, let's say the proceedings during the day…… Unless the person is given, for example some … some specific time dedicated to that, they can dedicate specifically for this dysphagia, and going around checking everyone's, for example care plans are reflective of what SLT recommended, or referrals have been made when needed that does require time and attention that is difficult to achieve when on a busy day doing the normal work."*
> - Senior Clinical Staff 3

Staff were receptive to a different approach where the link practitioner was based outside the home, and therefore funded by the NHS, with a recognised and specific role within the home. Analogies with other roles that they felt had been successful were made to illustrate this:

> *"having someone who could have a privilege link, a link with the community SLT that would help. Some 1 or 2 years ago the speech therapist from the community team was very available and she would if we sent referrals through the normal route, we could actually speed up by writing directly to that therapist who was extremely dedicated and proactive and did a lot in terms of helping us, show our carers what to do."*
> - Senior Clinical Staff 3

> *"We know more and more that liaison role is important, we've had for the last 2 years this liaison with [acute hospital x] and that significantly reduced hospitalisations. It reduces the time we spend looking for information because the access to the information is obviously the key*."
> - Senior Clinical Staff 3

> *"I'll tell you what worked really well, and you'll know this I think you know we've got this link with the hospital and the frailty nurse. Her role is to link us to the hospital, hospital to us you know if we've got a catheter that's come out and we've got a nurse here can't quite get it sorted don't send the patient to the hospital bring the frailty nurse in off the cuff and shell do it coz she's got those few more skills……. You almost need the similar model that says there's a link practitioner shared between*

> *two or even three homes your guaranteed to see her 2 or 3 days a week and in those visits she would um or he would um focus on the top ten patients with Dysphagia needs and work their way down the list*."
> - Senior Non-Clinical Staff 1

Summary

Training of care staff in relation to assisting residents with dysphagia to eat and drink safely appears to be limited and predominantly focused on food modification and thickeners. These two elements of care are therefore perceived by staff to be the main strategies, rather than other elements such as positioning, supporting, prompting or independent feeding. The care certificate forms the basis of HCA training but does not include specific training in relation to dysphagia and the strategies required to safely support nutrition and hydration. Whilst pureed meals that are currently recommended for dysphagia residents, they are difficult to make appetising and there is limited specific training for kitchen staff.

Care staff had a limited knowledge about the differences between dementia and other causes of swallowing difficulties. Observing a resident coughing or choking caused significant anxiety among staff. This resulted in inappropriate referrals being made to SLT and residents being given pureed food/thickened fluid by default if they were observed to be coughing.

Communication between nurses and carers predominantly occurred during the daily handover, care assistants would rarely look at care plans and drew on verbal handovers to know about their content. In addition, they would rely on visual prompts such as thickeners to remember that residents had dysphagia and needed different care. Equipment aimed at supporting feeding such as adapted spoons would frequently disappear and staff were not aware it should be used. There were major time pressures on staff during mealtimes which affected their ability to spend time assisting residents with dysphagia.

In terms of a dysphagia link practitioner role, although this was seen as being a good thing, a number of barriers were identified. These included the difficulty of freeing up time of care staff to devote to the additional role of link practitioner and the need for the role to be reasonably senior and clinically trained and so adding pressure to already thinly stretched resources. NHS funding for a link practitioner who would visit the home was seen as being more likely to be successful and had been demonstrated with recent development of a frailty nurse.

Phase 1a: Interviews with Speech and Language Therapists

Semi-structured interviews were undertaken with three speech and language therapists (SLT) from the community trust that provided specialist advice to the care homes included in the study. These explored the referral and assessment process, their perspectives on the care of residents with dysphagia, care home staff knowledge and skills, and the role of a dysphagia link practitioner.

SLT model of care

The SLTs are part of a multidisciplinary community team that includes for example, occupational therapists, physiotherapists, dieticians. Three SLTs (2.4 FTE) cover four large homes within one London borough. These clinicians are integrated into a wider SLT community team allowing resources to be shared and providing a range if peer expertise that can be drawn upon. The community SLT service comprises of eight clinicians in total, led by a clinical SLT lead. The integrated approach down not allow named clinicians for particular care homes.

The model for referral is very consultative with referrals for SLT assessment ordinarily made by the senior nurse/suite manager of the respective care homes. Referrals are triaged by the SLT in terms of their urgency; those deemed at high risk of aspiration are seen within 72hrs, medium risk 10 days and low risk within 25 days. The SLTs have clear written criteria that they follow to determine how individuals are triaged. The triage process is to ensure that almost all referrals are provided a telephone call within 48 hours of receipt to speak to the referrer, gather any further information required, and to provide an outline of the expected waiting time to assessment.

The process of referral

The SLTs saw the referral process as having has several pitfalls. The referral form is a blank generic form which can be completed for referral to any Allied Health Professional service (Appendix 3.1). Thus, without any written prompts or guidance as to what information needs to be conveyed, the SLTs reported that the information that care home staff provide on the form tends to be nominal/sparse and sometimes inappropriate

> *"often the referrals we get are quite poor, so there's not a lot of information on them. Umm it quite often doesn't show an understanding of the swallow."*
> *- SLT3*

> *"x person or x is coughing when eating and drinking please come and assess them urgently"*
> *- SLT2*

An attempt to introduce a SLT specific form was trialled in another borough. However, it was observed that NH staff reverted to the generic form which was readily available and did not require multiple questions to be answered.

The community teams triage process includes a follow up call for all referrals where further information is required. This focus of triage is identifying risk of choking and/ or aspiration and the implications of this (e.g. chest infections, avoidance of food etc.) whether there are strategies the staff can implement immediately that might help the resident. Follow up calls can also be difficult as SLT comment that it is not always possible for them to speak with the original referrer. SLT report that the staff member taking the call may not be aware that the resident who has been referred has indeed got a problem with swallowing. One SLT also commented that some staff do not fully understand the questions being asked of them because English may not be their first language. SLTs therefore rely heavily on their own clinical experience and judgement, knowing the right questions to ask to help determine whether they need to go into the home to assess someone.

> *"there's alarm bells and risk factors um and medical history. As well as getting all of that you would just pull together a picture of the person. You need to try and get a picture so there's things like how are they feeding them? Are they in bed? Are they being sat up? [what is] their mouthcare? [any] chest infections at the moment? And actually, what happens when they're eating and drinking?"*
> *- SLT 3*

The process of assessment

In undertaking an assessment of a resident's swallowing ability, going into the home to undertake an assessment and provide recommendations was seen as far preferable to undertaking a virtual consultation which has been the predominant model since the start of the Covid-19 pandemic.

> *"I can have a really lovely session with the carer or the nurse and the patient. I can show some feeding techniques, some way to sit someone you know. Look if you take the lid off that cup and the person drinks themselves, they stopped coughing. There's little things you can do, and that one person sees it um you can then go, and you can talk to the lead nurse..."*
> *- SLT 3*

The SLT, after assessing a resident, in addition to providing written recommendations, would ordinarily explain their recommendations to the nurse in charge and would have to trust that this would be cascaded to the rest of the team.

> *'"you talk to the ward sister, but …. when that member of staff isn't on, what do the night shift do? What do the weekend shifts do? And you are not always confident that yeah it's understood or followed."*
> *- SLT 3*

Where possible the SLT would try and demonstrate or discuss the recommendations with as many staff as possible available at that time. SLT recognised the value in giving information to staff face to face as this was more likely to generate questions from staff if there were aspects of the recommendations that they didn't understand. The kinds of things that the SLT recommend are:

> *"they're sort of general guidelines in terms of, you know, thinking about positioning and then thinking about the consistency of their food and fluids and sort of the rate or their intake um and then oral care. So, there's some sort of general categories and what equipment they might need and um sort of specific within that what's gonna really suit the patient."*
> *SLT 1*

The way in which recommendations are communicated to care homes or families (in the case of domiciliary care) are varied. One SLT remarked on a previous post working with adults with learning disabilities where the recommendations were given to staff using a 'six box grid'.

> *"so, it [the grid] had a box about positioning, a box about their food and fluid consistency, equipment um... Assistance required, and you know things to look out for and when to contact the GP or Speech Therapy."*
> *- SLT 1*

However, another SLT remarked that from previous research she was involved in, if more than three recommendations are given to staff, these will not be enacted.

> *"...anything more than three recommendations just, I think, people [care staff] went ooft, that's too much you know, haven't got time for this and so yeah, we always try to keep things concise."*
> *- SLT 3*

SLT also recognised that there was an issue with how staff, in particular HCA staff might access the recommendations – as they are either typed directly into the MDT section of a resident's electronic care record or a copy is placed in a set of written care notes. The SLT had little knowledge how or when these might be accessed by the HCA staff and even reflected that they may not be read at all – particularly by new or agency staff. Even when a recommendation is displayed visually, one SLT remarked that the recommendation still

wasn't being followed and staff weren't necessarily aware of how important it was to follow the recommendation.

> *" there's a big sign above someone's head that says no (spouted) lids and there's a lid and the care assistant. You go in and you go "no lids, there's a lid" and they [the care assistant] go "oh yeah"*
> *- SLT3*

Training for care staff in assisting residents with dysphagia to eat and drink safely

As per RCSLT guidance the SLTs understood that nursing homes take the responsibility to ensure that staff are trained in dysphagia care. It was assumed this would include training around IDDSI guidance, what signs of swallowing difficulty to look out for and when to refer to SLT. However, one SLT felt that training in feeding techniques was severely lacking.

> *"the staff aren't trained to feed people, so they don't understand and there's so much in it. You can make such a difference with a good quality way of feeding someone you can really help their swallow with a lot of kind of sensory changes and setting up the meal. Just supporting someone's arm rather than coming at them with food when they don't know what's happening. But that's... it's a real lack of training and understanding of what it is like to be fed."*
> *- SLT3*

Nonetheless SLT recognised that they could play a role in supporting staff training. This was usually ad hoc as opposed to routine or mandated practice; it was provided as adjunct to the training programme the care homes have in place. Although time was limited for staff and SLTs, on occasion they would provide education to staff. A SLT remarked that they would provide training for the home when a manger specifically requested it.

> *"if there's something we do think is going to work for the client, we will offer that training … we try and meet as many carers as we can to show them that this is working"*
> *- SLT2*

In terms of resident safety - one SLT felt that staff would benefit from learning about the more subtle signs that might indicate the resident is in difficulty/is aspirating. One SLT felt carers could only receive this by being observed

> *"Carers just look for the choking and coughing. Those big signs that something is wrong"*
> *- SLT1*

> *"Some of the signs of aspiration or difficulty are really minimal … carers might not realise you know, like a change in your breath can indicate you are having more difficulty, or you know, looking for things like watery eyes, like some of those more subtle signs"*
> *- SLT 1*

SLT were acutely aware, however, when they were observing practice, of not wanting to make the staff feel that their practice was being judged. They recognised that some staff may feel that the SLT is only called in when there is a problem.

> *"I feel very empathetic to their role um, so I try and come from that place and try not to kind of um yeah not to judge because I know it's challenging"*
> *- SLT2*

What are the SLT perspectives on how care is delivered in the home?

The SLTs recognised that the job of an HCA in a care home is a difficult one especially with residents with cognitive impairment. A further concern raised was that residents could be fed by a number of different staff members with differing levels of knowledge, experience, and competency. They noted that individuals who are relatively new to being carers may not have had a lot of experience with people with swallowing difficulties.

> *'if you're kind of brand new, if you've temporary staff, if you're rocking up for your first shift, you don't have the time to look at someone's recommendations and how they do things and how they like to be offered food and um the kind of pacing, positioning side of things which I think is really, really crucial. It's the strategies that kind of help them making someone's eating and drinking experience that more enjoyable and safer.'*
> *- SLT2*

Continuity of staffing, with regular and experienced staff to support residents, was therefore seen as hugely important by the SLTs. They saw good practice as staff being familiar with the resident, having a good understanding of the SLT recommendations and the basic principles of feeding someone with dysphagia.

In terms of how well staff are able to follow the recommendations/guidelines, one SLT commented that they were confident that staff were able to follow some of the recommendations but less so, for example, when it came to following IDDSI diet consistencies.

> *'I think they lacked knowledge exactly sometimes on what a level five diet looks like or a level six.'*
> *- SLT1*

They also recognised the role of kitchen staff in preparing residents meals to the correct IDDSI levels and that some of the training needed to start there to ensure that the food is prepared to not only look and smell appetizing but also to the correct IDDSI level.

> *'it was unrealistic for the carers on the unit to be modifying someone's food they've got to be modifying it further to meet that person's needs'*
> *- SLT2*

Trusting that care staff are competent to implement the recommendations as made by SLT was recognised as difficult. SLTs felt that the competence differed between staff. They referred to observing really good examples of dysphagia care with the HCA really thinking about the person they are feeding. Though there were also examples of poor care.

> *"I've seen …….. the person's not even sat up.. They're not watching for the person to swallow. The person doesn't know what's happening because they've got a cognitive issue..."*
> *- SLT3*

> *...it was a bowl of green slush and a bowl of brown slush and mixed together was grey. I mean it was, I don't know, . I don't know what it was, for a quality of life, it's really depressing.'*
> *- SLT3*

What strategies do SLTs see as helpful in improving dysphagia care in the home?

SLTs reported a number of strategies that could improve staff competency in assisting residents to eat and drink safely. These included providing visuals, including photos of food consistencies, correct positioning of the individual resident, correct equipment, portion size and bolus sizes for feeding. One SLT suggested that for homes without dedicated kitchen staff preparing meals, a simple set of photographs with foods prepared to different IDDS levels may be useful. Photographing the resident in the correct position ready for eating and photos of how much needs to be on the spoon/fork for each mouthful was another suggestion which may help staff particularly who don't have the time to read the recommendations in detail.

The SLT also referred to their own role in discouraging the use of thickeners.

> "*We're moving away from using it [thickener] but then that's where it gets more complicated. Because it's about feeding, it's about positioning, it's a bit more holistic...and there's new evidence that's come out and so that's for our profession to*

be re-educating."
- SLT 3

SLTs also talked about the value of undertaking good mouth care as a first principle in managing swallowing difficulties.

"The first thing you do is look inside someone's mouth. Because, if they've got swallowing problems, if there's a raging infection in their mouth, or it's not been cleaned you [the resident] can't feel the food, can't taste the food, can't move [their] tongue round very well so that would be one of the first things you [SLT] would check."
- SLT 3

The Dysphagia Link Practitioner role

All SLTs interviewed felt there was a role for a DLP or a Dysphagia champion of some sort, to help staff with following recommendations for safe eating and drinking which in turn could reduce adverse events, hospital admissions and inappropriate referrals to the SLT team.

"... if it really could be shown that it would save money if there was someone there. Idea that pneumonia, chest infection rate on the nursing home through good oral care, through positioning, through following recommendations, you know, reflux management, things like that, would then mean that the people we did go and see were the true dysphagia."
- SLT 3

In addition, one SLT felt that the role could have a direct impact on improving the experience for both care staff and residents.

"...it would be really great if a more specialist dysphagia or eating and drinking role was within nursing homes, just to make, yeah, makes this a bit easier for people, I think. I think it can be a really enjoyable great part of the day for that resident and I think it can be like the worst part of the day for the carer."
- SLT 2

All had seen other roles linked to care home settings such as frailty nurses, they agreed that the DLP role could be effectively taken on by an HCA based within a home. In particular, a peer support model was advocated by one SLT who felt that having a skilled and confident HCA on the suite could support some of the other carers.

"so, I do think that yeah that kind of peer support, kind of someone who has worked in your role, kind of showing, then kind of sharing their knowledge, supporting you, I

think is really effective."
- SLT 2

One SLT felt that a DLP could helpfully sit with the carers while they were feeding a resident and have the conversation about how to identify softer signs of aspiration although it was recognised this might be harder if the person doesn't have an SLT background.

The issue of funding such a post was also raised as a potential barrier, including the option of having such a post based with the community team.

Summary

The current model for SLT support in care home settings is very consultative. The process of referral is not without its problems including inappropriate referrals and/or inadequate information to determine why an individual has been referred for specialist assessment. The care home environment is complex with residents with multiple physical and psychological health needs. SLT raised concerns of staff ability particularly in supporting residents with cognitive impairment whose dysphagia may be part of deterioration and not amenable to specialist intervention. There are opportunities for better managing such residents by care home staff themselves. Whether staff follow written SLT recommendations is unclear, SLT feel recommendations need to be simple and short to ensure they are enacted. The use of visuals, such as pictures of food consistencies and pictures of residents correctly positioned are seen as helpful to HCA's understanding of what is required to support a resident to eat and drink safely. Current training for care home staff is seen as inadequate and the SLT role in training is varies between care homes depending on local commissioning arrangements. SLTs interviewed for this study were not responsible for care home staff training per se but did on occasion provide ad hoc training imparting their knowledge and skills to whichever staff were present at the time, though recognising this may not necessarily be cascaded more widely... The role of kitchen staff in food prep is also considered an important part of the care pathway to ensure meals are prepared to the correct IDDSI level and well presented. A DLP role is seen as a potentially good idea, one that could be undertaken by a senior confident HCA and a peer support model may be a practical way of implementing such a role.

Phase 1b) Interviews with link practitioners

Semi-structured interviews were undertaken with seven link practitioners working across a variety of roles (three infection control, three tissue viability and 1 nutrition). Six were registered nurses and one a health care assistant. All were working within acute hospital settings

Four main themes were derived, based on the components of the Theoretical Domains Framework (TDF). These were:

- The link practitioner role (social and professional role/ identity, beliefs about capabilities, beliefs about consequences and memory, attention and decision making),
- Knowledge and skills required for the role (knowledge and skills)
- Intrinsic and extrinsic motivations of being a link practitioner (goals, intentions and emotion) and the personal,
- Barriers and facilitators to working effectively as a link practitioner (environment and social influence).

The central themes that emerged across all the participants accounts are that self-motivation, communicating new knowledge and a passion for the role are at the heart of being a link practitioner. A successful link practitioner role is also reliant on a supportive environment with the opportunity to develop knowledge and keep up to date through attendance at study days and link practitioner meetings.

Role of a successful link practitioner

Several LPs indicated that the link role was used in a range of specialist areas as a way of providing ready access to more detailed knowledge of a topic in the clinical area

> *"They have different link workers, health and safety, manual handling. So, everyone links in and does a different task."*
> – LP3, Infection Control Link Practitioner

> *"so, it's good that you have someone in your department that is able to just quickly liaise with them and go back to you support you give you a little bit of feedback a little bit of training, so I really think link nurses are very, very useful."*
> - LP5, Tissue Viability Link Practitioner

A link practitioner was easier to seek advice from that the specialist service which had limited resource and might not be immediately accessible

> *"we review every patient we make sure the basic care for that wound was being implemented was being developed and was kept in place and the nurses would probably escalate more to us than to the big team to the tissue viability team because theirs only two of them for the entire trust, so we act as we are more active in terms of resources of knowledge."*
> LP7, Tissue Viability Link Practitioner

Key components of the role were, firstly the link with a specialist practitioner and secondly some specific training that conferred enhanced knowledge and understanding of the subject. This is what enabled the LP to act as a source of knowledge and advice to other staff. They would be the first point of contact for staff if they had a query or problem:

> *"it's that connection between clinical specialist nurse and the department so any study days any useful information any changes in our policies or guidelines you feed back to your team and then you act as well in the other side you field any problems any concerns any incidents that we have related to the tissue viability we will report them back to the tissue viability nurse so it's a very good way to make sure that the right things are in place."*
> - LP5, Tissue viability Link Practitioner

> *"we're the sort of the linkage… passing on information to other members of staff and keeping them updated if there's anything been changed or [if] there's anything new coming up regarding patient nutrition."*
> - LP 1, Nutrition Link Practitioner

> *"if you wonder about something if you have trouble if you need something if they are on duty on the day you can just talk to the link nurse."*
> - LP4, Infection Prevention and Control Link Practitioner

> *"we review every patient we make sure the basic care for that wound was being implemented was being developed and was kept in place and the nurses would probably escalate more to us than to the big team to the tissue viability team because theirs only two of them for the entire trust, so we act as we are more active in terms of resources of knowledge."*
> - LP7, Tissue viability Link Practitioner

They would also be responsible for key tasks within their work area such as conducting audits of practice, checking documents or assessments were correctly completed, or that updating policy information for clinical staff.

> *"we are responsible for the areas that we work in to be clean and tidy and obviously we keep the folder updated, and we put everything on files."*
> - LP3, Infection Prevention and Control Link Practitioner

> *"I'm a link nurse for infection control and basically me and my colleague, ….we just do weekly and monthly audits just to see if everything is in order when it comes to infection control."*
> - LP4, Infection Control Link Practitioner

> *"as a tissue viability link nurse our job is to go out and make sure that everybody had the correct documentation done on every patient. So, if they were admitted with a pressure ulcer, have they done their checklist? have they had clinical photography come up and take pictures? have they measured?"*
> - LP6, Tissue Viability Link Practitioner

And some link practitioners also have a role in advising and reassuring patients

> *I had feedback from other nurses and senior nurses saying that you look very comfortable explaining things to the patients and actually patients that were not following what we were telling them before if we really explained to them the reasoning behind what we can get they start to be and they start to say okay I will follow it."*
> - LP5, Tissue Viability Link Practitioner

Improving care for patients was seen to be a key purpose of the link practitioner role

> *"Again, patient safety is paramount, so whatever I am teaching them is going to benefit the patient".*
> - LP2, Infection Control Link Practitioner

> *"it really showed an improvement, especially on a pressure ulcer prevention because we were quite on board with um making sure that all the preventative measures were in place so ultimately it benefited the trust…. Our percentage of pressure ulcers were quite low even when you compare the trusts."*
> - LP7 Tissue Viability Link Practitioner

> *"you're trying to get them to start eating again and letting staff know not to give them like the ensure drinks."*
> - LP1 Infection Control Link Practitioner

> *"We can potentially stop some children getting infections.... and picking up infections sooner, the patient benefits, absolutely."*
> - LP2 Infection Control Link Practitioner

The ability to teach was seen to be an important part of the role, although often was delivered on an informal basis when working with colleagues on the ward

> *I developed my teaching skills because I had to deal with teaching people which I never did before. …. We deliver a session [at team training days] like one hour two hours of the basic things that we want people to know in terms of prevention."*
> - LP7 Tissue Viability Link Practitioner

> [education] *it's what you do when you work with someone you know you explain to them if there are any changes in the way we treat patients*.
> - LP 4, Infection Control Link Practitioner

Being knowledgeable was also key to the role and therefore training was essential, but also confidence and an ability to communicate clearly with others

> *I think it's very important that you train your link nurses because they are going to be in the ward. The tissue viability nurse comes and goes, but you are there, and you are a huge support for the nurses working with you."*
> - LP5 Tissue Viability Link Practitioner

> *"I gained a lot more knowledge and understanding and skills from what I was doing and the importance of the knowledge behind what I was doing, and I was able to pass that on to my team."*
> - LP2 Infection Control Link Practitioner

> *"being more confident and more comfortable talking about things and improving my communication it has made a huge change in my practice."*
> - LP5, Tissue Viability Link Practitioner

Being recognised as capable of supporting decision making was critical to Tissue Viability LP roles where the role included a strong element of prescribing care

> *" [the role] was very well accepted [by band 5 and 6 nurses] but also higher-level nurses in charge, so 7 and 8. ….At the beginning of my shift they would say "oh good you here I have this patient for you to see I'm really concerned".*
> - LP7, Tissue Viability Link Practitioner

> *"if you know your things and they [consultants] can feel that your confident and you're knowledgeable they respect you much more and they take into account what*

> *you're saying."*
> - *LP5,* Tissue Viability Link Practitioner

However, this required a high level of knowledge and ability to challenge and influence others in a sensitive way

> *"it's quite hard to move them from that to different situations but slowly I'm like showing them pieces of work or new articles, or new guidelines. Some of them they say, "oh I never thought about that" or "I always used this one" and I say, "but we have this new product." So, it's just if you show them you have the knowledge… if you show them that you are a support for them as well, I think they're more keen to change their practice."*
> - LP5, Tissue Viability Link Practitioner

> *You have to stand up for yourself... whether it makes you popular or not.... and be your patient's advocate -*
> - LP1, Nutrition Link Practitioner

> *"Alright none of us are infallible, we are all human, mistakes do get made but you know we've obviously got to look at where these mistakes have been made and draw from them and learn from them… ...so you know we don't let it happen again.*
> - LP1, Nutrition Link Practitioner

Knowledge and skills required for the role

The LP is required to demonstrate a high level of knowledge and skill (both practical and policy) related to both their substantive and link roles which they acquire through training as well as their own learning. They are then able to disseminate this knowledge to work colleagues.

> *You need to show you have experience and knowledge, because you are going to be a key part of the team. So, you need to go to study days, you need to go on updates, you need to do a lot of reading on your own.*
> - LP5, Tissue Viability Link Practitioner.

> *I got so much exposure to different wounds, to different patients because I went to training and conferences. I got the knowledge and also the skills.*
> – LP7, Tissue Viability Link Practitioner

However, it was also considered important the LP actually worked at the 'coal-face' so that they had good relationships with their colleagues and could see what the actual issues with care that needed to be resolved

> *"I think it is important for you to be working along your colleagues. You can't just be a manager I don't think it works that way if you're a manger …… you need to have that relationship [with colleagues], to deliver the care yourself also. …. They [managers] saw that I was bringing in some issues that they didn't realise because they were not delivering the care themselves*."
> - LP7, Tissue Viability Link Practitioner

The LPs described obtaining skills from attending LP meetings and gaining knowledge from their interactions with the specialist team, for example an infection control team within the hospital and their peer link practitioners.

> "*Learning from my peers, girls that had worked as link nurses for longer, who had been there for a couple of years and who had always done it, …. the mentors then would just keep up to date with the best evidence, best practise and would relay that on to us and then in our little meetings we would have discussions, and then see if anyone had read anything recently or if anyone had any new information to bring to light."*
> - LP6 Tissue Viability Link Practitioner

> *We would meet up once a month so we can get updated from the team about any new updates that the infection control has started or themselves have been aware of for us to filter down to the unit.*
> – LP2 Infection Control Link Practitioner

> *I was going to training. So, if there was a training day on that subject, I would be the one selected to go and then I would usually write an email and just disseminate that information because it was just easier to approach everyone. So, I can do a summary of what I learnt, all the things that needed to be highlighted to the rest of the team*
> - LP7 Tissue Viability Link Practitioner

LPs were motivated to support their personal development and keep up to date by seeking out additional knowledge in their own time though external reading or membership of relevant societies

> *"I have signed up to be a member of the Infection Prevention Society, so I get regular emails through them and I get... journals through them once every three months and I attend regular link practitioner meetings as well."*
> – LP2, Infection Control Link Practitioner

> *"I used to subscribe to magazines or even online magazines or websites like the wounds UK so that was a good way of just reading you know reading about it …… I was kind of prompted to um to read about it and to keep my knowledge up to date*

so that was so that was just easier."
LP7 Tissue viability Link Practitioner

An important part of the role was to then share the knowledge amongst their own team, and this was perceived to lead to better care.

"Whatever we learn we bring back to our wards and basically show our colleagues"
- LP4 Infection Control Link Practitioner

Success in this role was not considered to be solely reliant on enhanced clinical skills, there was also a focus on non-clinical skills. Interpersonal relationships were key, and it was important for the LP to be approachable and available to provide insight and guidance with the aim of providing best patient care. They would then be the 'go-to-person' if staff had a problem or question about practice

"We all know who the link nurse is so, you know if you wonder about something, if you have trouble, if you need something, if they are on duty on the day you can just talk to the link nurse"
- LP4 Infection Control Link Practitioner

In order to facilitate the transfer of their knowledge and information LPs need to be skilled at communicating and this skill is seen as really important to enable effective communication with both staff at more senior and junior grades and also with patients. This might include helping patients understand the reason behind their treatment which was seen to be important in encouraging them to comply with the treatment, explaining concepts or new practices to colleagues to develop their knowledge and ensure that they know what to do, and using expert knowledge to influence other colleagues .

"The biggest one with me has been communication…. We presume people know what they need to do and what they need to know and what they need to drink and what they need to eat, but it's not true."
LP5, Tissue Viability Link Practitioner

I developed my teaching skills because I had to deal with teaching people which I never did before…….I still have my patients, but I got referrals….I got people coming to me and saying oh [name] can you just see this patient because I'm worried about this wound and I don't want to call tissue viability nurse it might take days for them to come.
- LP7, Tissue Viability Link Practitioner

If you know your things and they [consultants] can feel that you're confident and you're knowledgeable they respect you much more and they take into account what

you are saying.
- LP5, Tissue Viability Link Practitioner

In addition, LPs needed to be organised and manage their time in order to act as a LP whilst still delivering the care expected in their substantive role

"Well time is a barrier also isn't it? We can't have lots and lots of time given just to do your role …I think it's really just trying to manage your own patient workload and seeing other patients but that was it really just time management."
- LP7, Tissue Viability Link Practitioner

Intrinsic and extrinsic motivations of being a link practitioner

The most commonly reported motivation for becoming a link practitioner was passion about the specialty. This was seen to both drive the interest in becoming an LP and the desire to improve clinical practice in the area of work. A passion for the subject was seen to be important for making a success of the role which would be difficult to achieve if the LP was someone who had just been allocated the role

"*I think someone does have to have a passion for what they're doing because it just makes you more interested. And then it gives you the drive to either change bad practice or continue good practice*."
– LP2 Infection Control Link Practitioner

"you need to have a passion for it so it's not compulsory. You need to have an interest, if not it wouldn't work because you need to let that passion go to others and then spread the knowledge"
– LP5 Tissue Viability Link Practitioner

"I'm quite passionate about infection control... some of the practice was slipping on the unit and some people were unaware the reasons they were doing certain things and they didn't know the knowledge behind what we were doing necessarily..."
- LP2, Infection Control Link Practitioner

This passion and interest were also important in driving the LP to develop their knowledge and skills

"you not only need to have the passion, but you need to have the will to update yourself to work hard and to update and then that's from your side…"
– LP5 Tissue Viability Link Practitioner

I mean I quite enjoy it because it's something a bit different from my everyday something else to get your teeth into."
LP3 Infection Control Link Practitioner

"it does take an extra effort you don't get extra time lots of time to do this so if you don't really like it, you're not going to engage with it."
LP7 Tissue viability Link Practitioner

Despite taking on extra responsibilities and increasing their workload the LPs did not receive or expect a financial incentive for taking on the role, although rewards and incentives could come from career progression.

"No, [I do the role out of the] goodness of me heart"
– LP1, Nutrition Link Practitioner

"No…I don't get anything extra. I should do really."
– LP3, , Infection Control Link Practitioner

"I started that link role as a Band 5 and then I progressed into a Band 6, and a senior staff nurse"
- LP2, Infection Control Link Practitioner

"well now I gain [from this role] because I got a massive promotion that I would never have"
- LP7, Tissue Viability Link Practitioner

The barriers and facilitators to working effectively as a link practitioner.

The support network of the specialist practitioner and other link practitioners was seen as really important in enabling LPs to work effectively

"if there was something that you had come across on a particular shift and you wanted advice from, we would kind of put it in our little WhatsApp group [for LPs] and just ask has anyone ever dealt with such and such before, or what's your suggestions and maybe the next time you're on shift can you go and have a little look and you review it, just to have different eyes."
LP6 Tissue viability Link Practitioner

"keeping in close contact by emails and they're such an open team and lovely team, I was in contact with them all the time. If I had a question, there's someone there every day apart from weekends and nights, but I could call them up and they would answer my question, and if they didn't know the answer they would find out and get back to me – or if I emailed them, they'd be so good at getting back to me. So …… I

never felt like I couldn't pick up the phone and call them."
LP2 Infection Prevention Link Practitioner

Support to undertake training was also a significant facilitator of the role. This support was required from several levels of the organisation but also needed a commitment from the LP themselves

"I've been very well supported by my manager, the tissue viability nurse, the speciality nurse, the hospital itself because they were happy for me to go to study days to take the course so I've I feel I've been well supported."
LP5 Tissue Viability Link Practitioner

"*If you have someone that's going to do the link nurse role you need to develop them, you need to train them…. The [tissue viability course] was agreed from the beginning. So, I think it's very important that you train your link nurses because they are going to be in the wards. The tissue viability [specialist] comes and goes, but you are there, and you are a huge support for the nurses working with you.*"
LP5 Tissue Viability Link Practitioner

"if you don't try to accommodate for that person to go to training it's very difficult for that person to get the knowledge and the skills and to give to keep themselves up to date - things do change quite a lot."
LP7 Tissue Viability Link Practitioner

"you need to have the will to update yourself to work hard and to update and then that's from your side, but you can't do anything if you're hospital your service doesn't support …… to say yeah, I'll provide training for you, yeah, I'm going to pay for your courses, I'm going to get you to conventions or to talks or to expo's. So, it's a double side, you need to want to do it, you need to be able to give your time, and then the hospital needs to help you to develop."
LP5 Tissue Viability Link Practitioner

The main barrier to performing the role was finding the time to act as an LP whilst delivering routine care and being released to attend training

"*Um I mean I know it's hard to do that because obviously every shift you have to have your patients and then on top of that you need to look after something else, another aspect, so …. sometimes you know it's hard to juggle."*
LP4 Tissue viability Link Practitioner

> *"...they [team] always let me go on the [link practitioner] meetings and um I make time for it because you have to make time for it."*
> LP3 Infection Control Link Practitioner

However, there were also challenges associated with influencing other more senior staff

> *"nurses who didn't work in the tissue viability link nurse role, they had a different role but had been working there for years. It was "we've always done it this way, so this is the way we're doing it" and "I've been here longer than you and I'm more senior, so I know". That's quite difficult because you can't argue with somebody who has an awful lot of experience but also you need to change practise and keep up to date so that was a bit of a challenge."*
> LP6 Tissue Viability Link Practitioner

> *"the matron or whoever's in charge didn't want them bringing out just wanted to stick to what their formula was and didn't want to be changing things purely sticking to budgets."*
> LP6 Tissue Viability Link Practitioner

And patients who did not recognise the specific expertise of the LP

> *"because you're still a link nurse so they don't consider you as a specialist, so you really need to show them that you know what you're doing that you're open to talk about it to explain to them to support them and that you still have the knowledge even if the colour of my uniform it doesn't say so."*
> *LP5* Tissue Viability Link Practitioner

Summary

The LP role is seen as an important way of providing ready access to more detailed knowledge of a topic in the clinical area and providing a link for advice and support with the specialist service which had limited resource and might not be immediately accessible.

The LP needs to demonstrate a high level of knowledge and skill (both practical and policy related) and they require training as well as personal motivation to obtain this knowledge and keep it up to date. The use the knowledge they acquire to provide guidance and support to other staff in their team and other professional colleagues and also have a role in influencing decision making. Non-clinical skills are key to performing the role, being confident and developing skills in communication, teaching and interpersonal relationships is essential for the LP to successfully disseminate knowledge. In addition, they need to be able to effectively plan their time in order to manage both their substantive "day to day" role alongside the additional and unpredictable? demands of the LP role.

The most commonly reported motivations for becoming a link practitioner was passion about the specialty. This was seen to both drive the interest in becoming an LP and the desire to improve clinical practice in the area of work. There were no direct financial incentives for taking an LP role, not did taking on the work remove them from other clinical tasks? but it did provide practitioners with a new area of interest and was associated with opportunities for career progression. The LPs often undertook reading and research on their topic in their own time?

Support from the specialist team (e.g., the infection prevention and control team) was key to an effective LP role, but support was also required from the organisation, both in funding training and releasing staff to attend it. It can be difficult for the LP to act as an expert resource at the same time as delivering a routine care job. However, being part of the care team was perceived to be key to the success of the role, enabling the LP to have a perspective of the challenges of care whilst acting as a link to the more specialist service.

Chapter 4
Results: Phases 2a and 2b

Phase 2a: Observations of Practice

A total of 25 residents reported by care home staff as having dysphagia were consented to participate in the study. For two residents no evidence of a SLT referral or recommendations could be found in their care records and they were excluded from the study. Observations of care for the remaining 23 residents commenced in February 2020 but had to be discontinued in mid-March when the care homes were closed to visitors due to the COVID-19 pandemic. Data collection recommenced in home B in August 2020, by which time a total of 9 of the consented residents (6 from Home A and 3 from Home B) had died. It was not possible to consent new residents because of the restrictions in the homes because of the ongoing pandemic.

Demographics of participating residents

The data presented in this section is shown in Table 4.1. A total of 23 residents (12 at home A; 11 at home B) were consented to participate in the study. The consented residents had a median age of 77.7 years (range 51-97) were evenly distributed between male (11) and female (12), with underlying diagnoses of cerebral vascular accident (CVA) (10), dementia (12) and neurodegenerative disease (NND) (1) (Table 3.1). All had high care needs with a mean Barthel Index of 1.7 (range 1 – 7). Observation of care data was captured on 11 residents (4 home A; 7 home B), their mean age was 81.5 years (range 71 - 97), 4 male and 7 female, 2 had an underlying diagnosis of CVA, 8 dementia and 1 NND. They had a mean Barthel Index of 2 (range 1 to 4) (Table 4.1). Individual characteristics of consented residents can be found in Appendix 4.1.

Table 4.1 Summary of demographic characteristics for residents consented to participate in the study

		All Consented Residents				Residents with Observations			
		Care Home A *(n=12)*	**Care Home B *(n=11)***	**Overall (n=23)**	**Overall % *(n=23)***	**Care Home A *(n=4)***	**Care Home B *(n=7)***	**Overall *(n=11)***	**Overall % *(n=11)***
Age	Range	51-97	72-90	51-97		71-97	72-90	71-97	
	Mean	74.42	81.36	77.7391		81.25	81.71	81.5455	
	Std. D	13.28	5.77	10.767		11.95	6.92	8.46597	
Gender	Male	6	5	11	48%	2	2	4	36%
	Female	6	6	12	52%	2	5	7	64%
Medical	CVA	5	5	10	43%	0	2	2	18%
Diagnosis	Dementia	7	5	12	53%	4	4	8	73%
	NND	0	1	1	4%	0	1	1	9%
Barthel Index	Mean	1.92	1.64	1.78		1.75	2.14	2.00	
	Std. D	1.68	2.16	1.88		1.50	2.54	2.14	
	No SLT Recommendations	1	4	5	22%	0	0	0	0.0%
SLT Location	Within Care Plan	10	1	11	48%	3	1	4	36%
	Separate Document	1	6	7	30%	1	6	7	64%
	Could not be located	1	4	5	22%	0	0	0	0.0%
Adverse	Choking instances	9	1	10	43%	2	1	3	27%
Outcomes	LRTI	5	4	9	39%	2	4	6	55%
(last 12 months)	Hospital Admissions	1	4*	5	22%	0	4*	4	36%
	Deceased as of Aug 2020	6	3	9	39%	3	1	4	36%

**2 instances of hospital admissions for one resident*

Adverse outcomes associated with dysphagia

Among all the consented residents 43% of had at least one incident of choking, 39% a lower respiratory tract infection and five a hospital admission in the previous 12 months. In terms of the eleven consented residents where observation data was collected, 27% had at least one incident of choking, 55% had reported a lower respiratory tract infection and there were four hospital admissions.

Both care homes provided data on residents' current weight on file (as of March 2020). Additionally, Care Home B provided data on admission weights of 8 out of 11 residents included in the observations. Where researchers were able to make comparisons on weight change three had gained weight, although none were more than 1kg. Five residents had lost weight since admission, two had lost under 5kg (0.5 kg and 4.5kg) and two had lost between 5kg and 10kg (5.1kg, 9.9kg and 31.1kg). One resident had lost a 31.1kg since admission to the home. However, they had been a resident for approximately 8 years. Explanations and context for weight changes were not sought and caution should be applied due to the variability in the time frame between admission and recording of current weight.

SLT recommendations for consented residents

Of the 23 consented residents the SLT recommendations could not be located for five residents. This may have been because the original documentation had been lost or archived or had been conducted in hospital and not transferred to the care home. For the remaining 18 residents with SLT recommendations, 11 were held within the care plan notes and seven were recorded in a separate document. Among the 11 residents included in the observations all SLT recommendations were located, with 4 having SLT recommendations within their care plan and 7 recorded in a separate document.

In the records of the 18 consented residents with SLT recommendations the most commonly referenced elements of safe swallowing were food texture in 78% (14/18) and thickened fluids(in 83% (15/18). Other elements were present in less than 38% of the recommendations. Specialist equipment and guide utensil/ cup were not referenced in any SLT recommendations (table 4.2).

Other elements were more commonly referenced in the care plan than the SLT recommendations. For example, posture is referenced in 16 care plans but only 6 SLT recommendations, and supervision, assistance or monitoring was referenced in 18 care plans compared to 7 of the SLT recommendations. Recommendations most likely to be absent from either SLT or care plan were - ensuring mouth clear at end of meal (17/18; 94%), alternate food and drink (16/18; 88%) and guide utensil/ cup and specialist equipment (15/18; 83%).

The distribution of elements included in SLT recommendations and care plans was similar in the records for the 11 residents included in the observations (Appendix 4.2).

***Table 4.2 Frequency of elements of safe swallowing referenced in residents written* guideline**

Safe Swallowing Category	Elements of safe swallowing	In SLT Recommendations (n=18)		In Care Plan (n=18)	
		n	%	n	%
Food and Fluid Modification	Food Recommendation	4	22%	7	39%
	Serving Size	3	17%	9	50%
	Texture	14	78%	17	94%
	Thickened Fluids	15	83%	16	89%
	Drinking Vessel to Support	4	22%	4	22%
Swallowing Strategies	Specialist Equipment	0	0.0%	3	17%
	Prompting	4	22%	9	50%
	Wait for throat clearing	1	6%	4	22%
	Guide Utensil/ Cup	0	0.0%	3	17%
	Alternate food and drink	1	6%	1	6%
Swallowing Safety	Posture	6	33%	16	89%
	Alertness	7	39%	7	39%
	Complete Swallow	4	22%	8	44%
	Supervision, Assistance, Monitoring	7	39%	18	100%
	Ensure Mouth Clear at End of Meal	1	6%	0	0.0%
	Advice on Managing Coughing	5	28%	6	33%
	Advice on Oral Care	2	11%	9	50%

In most cases the recommendations in the SLT and the care plan were the same, however for 24 (30%) of the 79 elements documented by the SLT the care plan entry was different (see Table 4.3). (For the data on the 11 consented residents see Appendix 4.3)

Table 4.3 Source of recommendations within written guidelines for 18 consented residents

Safe Swallowing Category	Elements of safe swallowing	Match between how element is referenced in both the care plan and SLT		Element referenced in the SLT but not the care plan		Element referenced in the care plan but not the SLT		Element referenced in both the care plan and SLT but does not match		Element not referenced either in the care plan or SLT.	
		n	%	n	%	n	%	n	%	n	%
Food and Fluid Modification	Food Recommendation	0	0.0%	0	0.0%	3	17%	4	22%	11	61%
	Serving Size	1	6%	1	6%	7	38%	1	6%	8	44%
	Texture	9	50%	1	6%	4	22%	4	22%	0	0.0%
	Thickened Fluids	11	61%	2	11%	2	11%	3	17%	0	0.0%
	Drinking Vessel to Support	2	11%	2	11%	2	11%	0	0.0%	12	66%
	Overall	**23**		**6**		**18**		**12**		**31**	
Swallowing Strategies	Specialist Equipment	0	0.0%	0	0.0%	3	17%	0	0.0%	15	83%
	Prompting	1	6%	2	11%	7	38%	1	6%	7	38%
	Wait for throat clearing	0	0.0%	1	6%	4	22%	0	0.0%	13	72%
	Guide Utensil/ Cup	0	0.0%	0	0.0%	3	17%	0	0.0%	15	83%
	Alternate food and drink	0	0.0%	1	6%	1	6%	0	0.0%	16	88%
	Overall	**1**		**4**		**18**		**1**		**66**	
Swallowing Safety	Posture	3	17%	1	6%	11	61%	2	11%	1	6%
	Alertness	4	22%	3	17%	3	17%	0	0.0%	8	44%
	Complete Swallow	1	6%	2	11%	6	33%	1	6%	8	44%
	Supervision, Assistance, Monitoring	1	6%	0	0.0%	11	61%	6	33%	0	0.0%
	Ensure Mouth Clear at End of Meal	0	0.0%	1	6%	0	0.0%	0	0.0%	17	94%
	Advice on Managing Coughing	1	6%	2	11%	3	17%	2	11%	10	55%
	Advice on Oral Care	2	11%	0	0.0%	7	38%	0	0.0%	9	50%
	Overall	**12**		**9**		**41**		**11**		**53**	
	Total for all elements	**36**		**19**		**77**		**24**		**140**	

Total of 296 elements. 156 documented elements (79 SLT; 137 in CP) 140 elements not documented

Observations of current practice

The elements of care included in the observations excluded those that were not included in the written guidance and combined other elements that were difficult to discriminate during observations. The observed compliance also included expected best practice where the elements was not specifically included in the SLT/care plan recommendations (see table 2.2 in Chapter 2: Methods).

Table 4.4: Summary of observed compliance with elements of care recommended in a residents written guidance - Care Plan (CP) or by SLT

Safe Swallowing Category	Elements of safe swallowing	Overall Observed (n=66)					
		In guidance		*Observed Compliance*		*Observed Non-Compliance*	
		n	%	n	%	n	%
Food and Fluid Modification	Serving Size	54	81.8%	50	75.8%	16	24.2%
	Texture	66	100%	63	95.5%	3	4.5%
	Thickened Fluids	60	90.9%	45	68.2%	21	31.8%
	Drinking Vessel to Support	35	53%	56	84.8%	10	15.2%
Swallowing Strategies	Prompting	44	66.7%	34	51.5%	32	48.5%
	Wait for throat clearing	29	43.9%	39	59.1%	27	40.9%
	Alternate food and drink	28	42.4%	38	57.6%	28	42.4%
Swallowing Safety	Posture	59	89.4%	64	97.0%	2	3.0%
	Alertness	42	63.6%	62	93.9%	4	6.1%
	Complete Swallow	51	77.3%	39	59.1%	27	40.9%
	Supervision, Assistance, Monitoring	66	100%	44	66.7%	22	33.3%
	Ensure Mouth Clear*	10	15.6%	34	53.1%	30	46.9%

*Missing data = 2

Notes: Where CP and SLT recommendation different then compliance measured against SLT recommendation; where no recommendation in CP or SLT then compliance measured against 'expected practice' (see table 2.2)

A total of 66 separate observations of care to support eating and/or drinking were undertaken on 11 residents. Table 4.4 shows the overall compliance by element of care where compliance is defined as practice that met the recommendations in the care plan, or SLT (with SLT taking precedence if the recommendation was different).

Observed compliance with recommendations for food texture and the positioning and alertness of the resident was over 90%. And these elements were mentioned in nearly all CP/SLT recommendations. Elements of care for which there was the least compliance were related to swallowing strategies and safety, in particular prompting (compliance of 51%), waiting for throat clearing (59%), alternating food and drink (58%), and ensuring the mouth is clear (53%). These elements were also less likely to be included in the CP/SLT recommendations (see Table 4.6).

The following contextual data captured during the observations provides some insight into factors that contribute to the observed levels of compliance

Food and fluid modification

Portion Size: Heaped or unmanageable spoonful's were observed to be used for feeding on eight occasions. This was often associated with the resident coughing or having difficulty swallowing the food. On another occasion, a resident's sister was present during mealtime. She was not aware that she needed to avoid giving large mouthfuls and feed slowly or that hard food such as sweets should not be given, and she also did not know what to do when her sister started coughing (Appendix 4.4).

During one mealtime, whilst the HCA said the resident could handle the food being offered on a large spoon it resulted in the resident coughing, stopping eating before the meal was finished, and subsequently vomiting

Texture: Meals were generally given at the correct texture as they were supplied in that format by the kitchen. However, on two occasions HCAs were observed to mix the soup with the main course in order to create one consistency (for a resident who was recommended pureed flood but normal fluids). The HCAs thought that the soup was too runny to serve on its own.

Thickness: Fluid thickness was always included in the CP/SLT fluid recommendations; however, compliance with the recommendation was only 68% due to inconsistencies between the recommended fluid thickness and what was given to the resident. Of the 11 residents observed, one was recommended Level 2 fluids, 4 Level 1 and 7 Level 0 (no thickening). Three of the residents on Level 0 were given thickened fluids and in some instances, those recommended level 1 fluids were given fluids thickened to level 2. For the resident who was recommended level 2 (slightly thick) fluids, the HCA said they were advised by the head nurse to add 'a minimum of 1 scoop but can use more if not the 'right consistency' although it was not clear how HCAs determined the 'correct thickness'. This advice therefore left the HCAs to make thickening decisions on their own and resulted in the resident having fluids which were thickened above the SLT recommended consistency. (Appendix 4.4).

Drinking Vessel to support fluid consumption: The need to use open cups or specialist drinking vessels was mentioned in less than 30% of CP/SLT recommendations. Although most residents were given drinks in open cups, there were 10 occasions when beakers were used and on two occasions this contributed to an episode of coughing. The beakers would have either been present in the resident's room at the time of feeding or the drink would have been prepared by HCA in the kitchenette. Beakers are contraindicated for people with dysphagia and the HCAs did not appear to be aware of this. (Appendix 4.4).

The high workload during mealtimes had an influence on the pace at which residents were helped to feed. Although many of the HCAs fed the residents at a slow pace and were

attentive to their swallowing, others appeared to feel pressure to get the meal completed quickly with one HCA stating that they were using a large spoon as they needed to get through the meal as quickly as possible because they had another resident to feed.

Strategies to support safe swallowing

The application of swallowing strategies was variable. For example, one HCA spoke to a blind resident about what she was doing whilst helping her to eat. However, another carer helping the same resident did not take account of her disability and instead mimed a swallowing motion which the resident would not have been able to see. Another carer, who had several months experience, was able to complete the meal quickly whilst ensuring the resident was swallowing between mouthfuls.

Posture, Alertness and Complete Swallow: One HCA who had been working in the home for just one month had acquired some knowledge about helping the resident to feed safely e.g., knowing to stop feeding and observe the resident's throat for the swallow as the resident tended to hold food in their mouth. However, although the HCA was also aware that resident should be upright whilst being fed, she was doing this with the resident semi-recumbent. (Appendix 4.4).

Supervision, Assistance and Monitoring: In a third of observations the resident was not supervised or assisted throughout the meal. This was most likely to occur when residents were receiving their meal in the dining room. Here, HCAs were observed to move around the room rather than give residents one-to-one support. Supervision is important to ensure that residents do not rush through their food or leave food in their mouths which could induce coughing. On three occasions a resident started coughing because of taking in more food whilst their mouth was full, although this did not trigger an intervention from any of the HCA's present. Lack of supervision also occurred for some residents eating in their room, as the HCA would leave them to eat on their own. If left unsupervised some residents) would fall asleep and not finish their meal, which would then be taken away. HCAs repeatedly did not attempt to address the problem of incomplete meals when the resident was woken.

Variation in compliance associated with number of HCA present

Differences in observed compliance were more likely to occur when residents were receiving their meal in the dining room (n=16) compared to in their own room (n=46). In the former situation, several HCAs would be present but moved around the room rather than providing resident's one-to-one support. When multiple HCAs were present compliance was significantly lower for 'prompting' ($p < .001$), 'waiting for throat to clear' ($p < .001$), 'completing swallow' ($p < .001$), 'supervision' ($p < 0.001$) and 'ensuring the mouth is clear' at the end of the meal ($p = 0.022$) (Table 4.5; Appendix 4.5).

Compliance with 'fluid modification' was significantly lower where residents were fed by a single HCA (p = 0.009), possibly because the presence of the thickener in the patient's room would trigger it to be added to their drinks even If not recommended.

Table 4.5 Association between number of Healthcare Assistants present during the mealtime and observed compliance with elements of care

Element of care	Single HCA (n=49)				Multiple HCA (n=17)				p-value
	Observed Compliance				*Observed Compliance*				
	No		*Yes*		*No*		*Yes*		
	n	%	n	%	n	%	n	%	
Thickened Fluids	19	38.8%	30	61.2%	2	11.8%	15	88.2%	.039
Prompting	17	34.7%	32	65.3%	15	88.2%	2	11.8%	<.001
Wait for throat clearing	13	26.5%	36	73.5%	14	82.4%	3	17.6%	<.001
Complete Swallow	14	28.6%	35	71.4%	13	76.5%	4	23.5%	<.001
Supervision, Assistance, Monitoring	7	14.3%	42	85.7%	15	88.2%	2	11.8%	<.001
Ensure Mouth Clear	18	38.3%	29	61.7%	12	70.6%	5	29.4%	.022

49 counts of single HCA present (74.2%) 17 counts of multiple HCA's present (25.8%)

Variation in compliance related to documentation in CP and/or SLT

For most elements the documentation in either the SLT recommendations or the Care Plan was not significantly associated with the observed compliance (Table 4.6; Appendix 4.6). For some elements such as such as fluid thickness, food texture and posture the element was mostly included in the written guidance and compliance was high. The only element where there was a positive association between being included in written guidance and compliance in observed practice was 'ensuring the resident was alert' during feeding (p = 0.01). In the case of two other elements, 'ensuring the resident's throat was clear' and 'alternating food and drink' there was a negative association between observed practice and inclusion in written guidance.

Table 4.6: Observed compliance according to whether the element of care was referenced in written guidance for the 11 residents (either SLT, Care Plan or both)

Note: NC = Not calculated as never not referenced in written guidance

	Care Element	Referenced in written guidance	Number Observed (n=66)		Observed Compliance		Observed Non-Compliance		Statistical significance (*p*)
			n	%	n	%	n	%	
Food and Fluid Modifications	Serving Size	Yes	54	81.8%	44	81.5%	10	18.5%	.021
		No	12	18.2%	6	50%	6	50%	
	Texture	Yes	66	100%	63	95.5%	3	4.5%	NC
		No	0	0.0%	0	0.0%	0	0.0%	
	Thickened Fluids	Yes	60	90.9%	41	68.3%	19	31.7%	.933
		No	6	9.1%	4	66.7%	2	33.3%	
	Drinking Vessel to Support	Yes	35	53%	27	77.1%	8	22.9%	.064
		No	31	47%	29	93.5%	2	6.5%	
Swallowing Strategies	Prompting	Yes	44	66.7%	22	50%	22	50%	.728
		No	22	33.3%	12	54.5%	10	45.5%	
	Wait for throat clearing	Yes	29	43.9%	9	31%	20	69%	<.001
		No	37	56.1%	30	81.1%	7	18.9%	
	Alternate food and drink	Yes	28	42.4%	11	39.3%	17	60.7%	.010
		No	38	57.6%	27	71.1%	11	28.9%	
	Posture	Yes	59	89.4%	57	96.3%	2	3.4%	.621
		No	7	10.6%	7	100%	0	0.0%	
Swallowing Safety	Alertness	Yes	42	63.6%	41	97.6%	1	2.4%	.097
		No	24	36.4%	21	87.5%	3	12.5%	
	Complete Swallow	Yes	51	77.3%	30	58.8%	21	21.2%	.935
		No	15	22.7%	9	60%	6	40%	
	Supervision, Assistance & Monitoring	Yes	66	100%	44	66.7%	22	33.3%	NC
		No	0	0.0%	0	0.0%	0	0.0%	
	Ensure Mouth Clear at End of Meal*	Yes	10	15.6%	3	30%	7	7%	.111
		No	54	84.4%	31	57.4%	23	42.6%	

HCA knowledge about assisting residents with dysphagia to eat and drink safely

Data was captured from 18 HCAs (7 at Care Home A; 11 at Care Home B) following observations of their feeding about their experience and knowledge of manging residents with dysphagia. At care home A all seven staff stated they had received some workplace training on IDDSI levels and feeding, although none said they had received specific training on supporting residents with dysphagia to eat and drink safely. At care home B, two had received formal training on dysphagia but the remaining staff had had no specific training. Experience was cited as the main source of knowledge, and knowledge of the residents was seen to be very important.

In both homes, all the staff said guidance on how to help specific residents to eat and drink safely came from verbal instructions from senior staff during shift handovers. These instructions would need to be remembered for several residents who they were looking after during the shift. Other sources of guidance that staff said they used were senior HCAs or peers with more experience and the residents' family. They described drawing on 'common sense' and their own previous experience but also cues in the room, such as the presence of thickeners and special equipment.

Although most of the staff (Care Home A n=5/6; Care Home B n= 9/11) had not seen the SLT guidelines, this was not necessarily surprising as they are commonly incorporated into the care plan rather than separate documents. In care home A all the staff reported seeing the residents care plan. But in care home B, where the care plans were held on the computer, most staff said they had not seen the residents care plan. One said that they relied more on the verbal handovers as the care plan was likely to be out of date.

All the staff said that they felt their knowledge of the resident and experience of caring for them enabled them to provide the resident with adequate care. However, one HCA said they were unsure how to help if the resident coughed or choked and another that they would like to know more about providing safe care? Generally, (Care Home A n=6/6; Care Home B n= 10/11) the staff felt supported by their care homes to care for residents with dysphagia. They stated that training and peer support were the main contributing factors to feeling supported by the care home. However, one person did not feel supported and would have liked more training.

Phase 2b: Data on bed days and incidence of respiratory tract infection (LRTI)

This data was collected between 1st February and 31st March 2020 when the closure of the two homes and the increasing incidence of lower respiratory tract infections due to COVID-19 meant that it was no longer possible to collect reliable information. This data is summarised in Table 4.9. The average rate of LRTI was 1.3/month at home A and 1.53 per month at home B. Only one referral to SLT was made at care home B during this 2-month period.

Table 4.7: Incidence of lower respiratory tract infection by care home

Metric	**Care Home A**		**Care Home B**	
Month/year	**Feb 20**	**Mar 20**	**Feb 20**	**Mar 20**
Total resident days	3798	4126	2524	2716
Av residents/day	131	133	87	88
Range	*128*	*135*	*82*	*90*
Lower Respiratory Tract Infections (LRTI)	4	2	2	4
Admissions	10	4	10	4
Discharges	5	7	4	4
SLT referrals	0	0	1	0
Incidence LRTI	1.05	0.48	0.79	1.47
Average/month		1.30		1.53
Admission rate	2.63	0.97	3.96	1.47
Average/month		3.12		4.70
Discharge rate	1.32	1.70	1.58	1.47
Average/month		2.16		2.32

Note: LRTI defined as resident receiving antibiotics for LRTI as reported by manager of each unit

Chapter 5
Results: Phase 2c

Safety Behaviour Questionnaire

Data Collection and Sample Description

Two hundred surveys were distributed to four care homes with 54 returned completed. A further 39 surveys were completed electronically by care workers in other care homes contacted via newsletter. In total 93 completed safety behaviour questionnaires were included in the analysis.

Confirmatory Factor Analysis

Data were input into SPSSv25 and then analysed in Jamovi 1.6.23 making use of FIML (Full Information Maximum Likelihood) estimation in order to account for missing values. The result for the chi-square goodness of fit test indicates that the null of an exact-fitting model should be rejected, $\chi^2(574) = 1154$, $p<.001$. The output for CFI and TLI were both considerably below what is deemed a good fit. The RMSEA (0.10) falls between 0.05 (close fit) and 0.10 (poor fit) so whilst not representing a close fit to the data, is the only indicator which indicates the data does approximate an acceptable fit (Table 5.1).

Table 5.1 Fit Indices

Fit Measures			**RMSEA 90% CI**	
CFI	TLI	RMSEA	Lower	Upper
0.506	0.430	0.103	0.0941	0.111

The factor loadings (standardised estimates) were below 0.30 for 13 of items (Appendix 5.1). Given the overall poor fit of the model, Modification Indices (MI) were inspected for potential removal of items to improve model fit. This resulted in the removal of 6 items (3, 6, 12, 15, 27, 38) because of large MIs (above 20). Subsequently, the model was rerun and did not converge (i.e., information matrix is singular) suggesting issues with multicollinearity and high inter-item correlations. The model was rerun using WLS estimation in JASP 0.14.1.0 to account for non-normal distributions and again did not converge. Subsequent item inspection showed most items to have a very strong positive skew with most responses falling onto the options of 1 (strongly agree) or 2 (agree) and only about 7 of the remaining items showing a distribution suitable for multivariate data analyses (Appendix 5.2). The CFA was discarded as assumptions were violated.

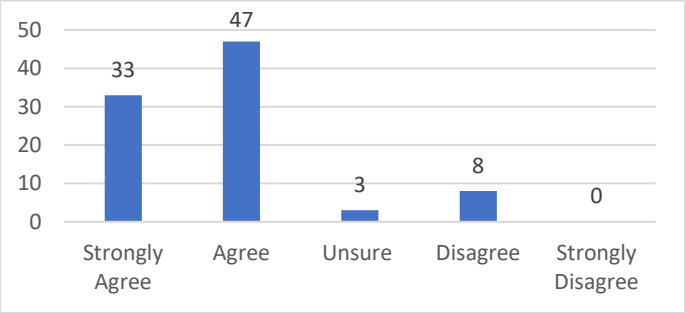
Descriptive analysis of survey data

Descriptive analysis was focused on the TDF domains and sought to identify what participants reported as facilitators to safe target behaviours and where behaviours might provide a focus for improvement. Missing data for each item ranged from 2-11 missing responses. The marked skew of responses towards strongly or agree or agree suggested confirmation bias may have influenced the results.

Knowledge domain

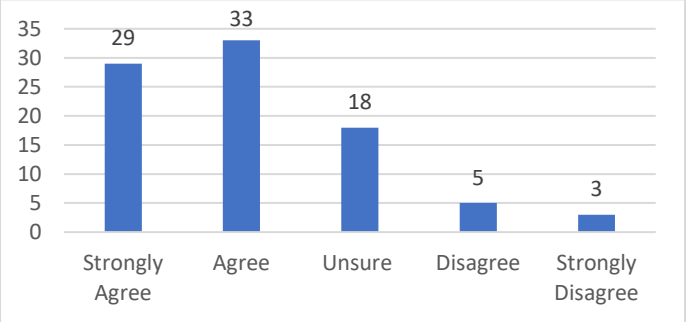
The questionnaire used four items that focused on knowledge components of safe swallowing. Participants strongly agreed with statements about their perceived knowledge of the role of the SLT 62% (58) and the importance of knowing what texture, thickness, and consistency of food that each resident with swallowing difficulties required 63% (59). There was less certainty regarding knowledge about how much food to offer in each mouthful 36% (33) (Figure 5.1) and how to use equipment such as straws and beakers for residents who had swallowing difficulties 31% (29) (Figure 5.2).

Figure 5.1: Responses to question - *I know how much food to offer in each mouthful for the resident to eat and drink safely.*



Overall, the response to knowledge questions demonstrated that around a third of all respondents were less certain about aspects of their knowledge, but there was also evidence of confirmation bias.

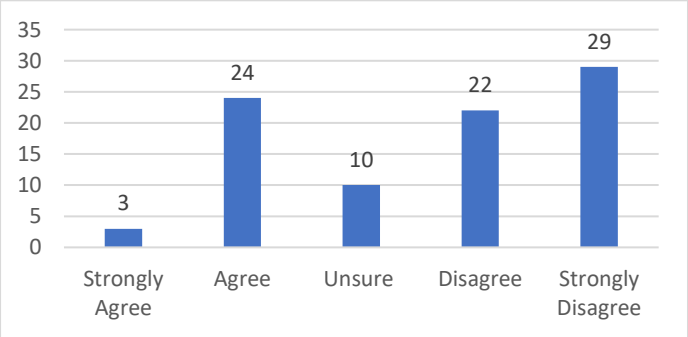
Figure 5.2: Responses to question *I know not to use a straw or a beaker for the residents who have swallowing difficulties*



Skills domain

The questionnaire used three items that focused on the skills components of safe swallowing. Being able to sit the resident in an upright position is an essential element of safe eating and drinking for those with swallowing difficulties and 42% (39) of those responding strongly agreed that they were always able to do this. Only 37% (35) of participants strongly agreed that they knew what to do if a resident coughed or choked when they were being fed and 29% (27) and also expressed lower levels of confidence that they had enough training to know what to do when a resident was having trouble swallowing (Figure 5.3)

Figure 5.3: Responses to question - I have not had enough training to know what to do when the resident is having trouble swallowing.



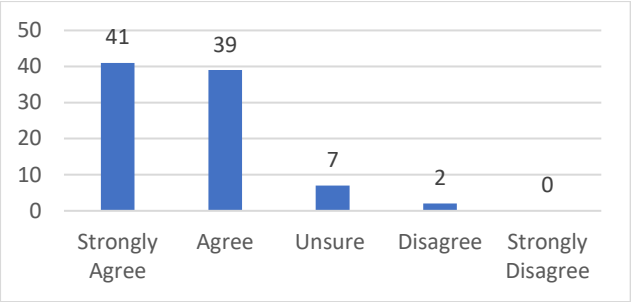
Social and professional role identity

The questionnaire used three items that focused on the social and professional identity components of safe swallowing. Almost two thirds of participants strongly agreed that it was their responsibility to know what the SLT recommendations were for each of the residents in their care 64% (59). Nearly half of respondents 47% (44) strongly agreed that they were sure of their role in helping residents with swallowing difficulties to eat and drink safely and 44% (41) strongly agreed that it was their role to know about the IDDSI levels for food texture and thickness.

Beliefs about capabilities

The questionnaire used three items that focused on the beliefs about capabilities components of safe swallowing. Participants strongly agreed that they were confident in their ability to help residents to eat and drink safely and 47% (44) and whilst they indicated they did not have enough training (Figure 5.3) most respondents agreed or strongly agreed that they could take the correct action if a resident was having difficulty swallowing (Figure 5.4). These responses perhaps indicates an element of unconscious incompetence.

Figure 5.4: Responses to question - *I can take the correct action if the resident is having trouble swallowing.*



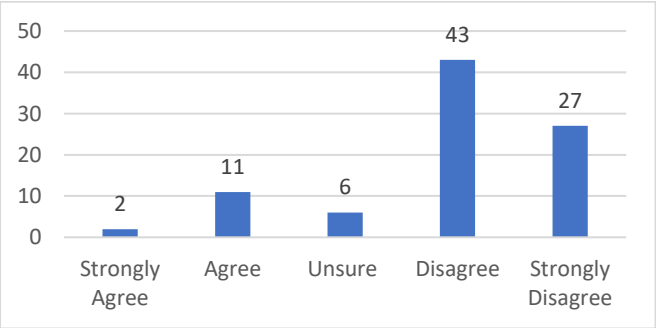
Beliefs about consequences

The questionnaire used three items that focused on the beliefs about consequences components of safe swallowing. Participants strongly agreed that following the care plan was important when helping residents with swallowing difficulties to eat and drink 65% (60) and that there were personal consequences for them if they did not follow the care plan when helping a resident to eat and drink. However, only 42% (39) strongly agreed that a consequence of not following the care plan would be that the resident would choke.

Motivation and goals

The questionnaire used five items that focused on the social and professional identity components of safe swallowing. Most (79, 85%) participants disagreed or strongly disagreed that they aim to finish helping residents to eat and drink as quickly as possible, with 42% (39) strongly agreeing that they always followed the care plan for residents with swallowing difficulties at mealtimes. There was less agreement about whether other tasks encroached on helping residents to eat and drink (Figure 5.5) but most agreed or strongly agreed (75, 81%) that they had enough time to eat and drink safely.

Figure 5.5: Responses to question – *Other tasks get in the way of me helping the resident to eat and drink safely.*

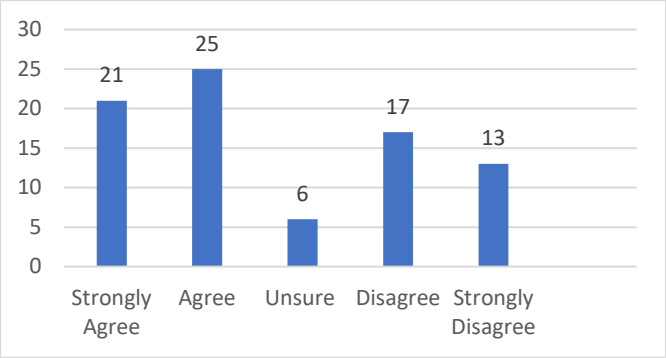


Memory, attention and decision making

The questionnaire used five items that focused on the memory, attention, and decision-making components of safe swallowing. Participants indicated that they did not make

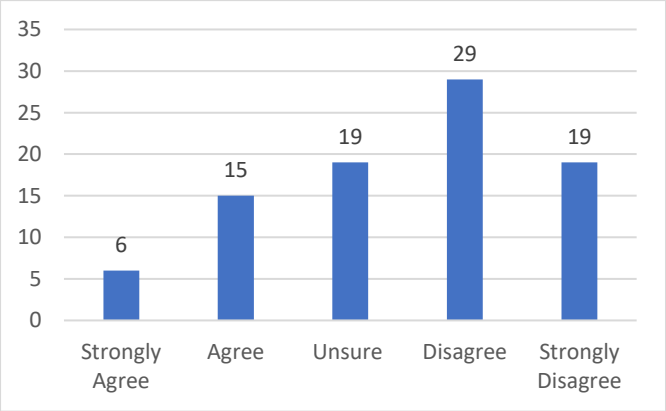
decisions about the how to feed residents with swallowing difficulties, with only 7% (6) participants strongly agreeing with the statement. Two thirds of respondents strongly agreed that they always watched residents while helping them to eat and drink 67% (62), but responses to whether thinking about other tasks took their attention at mealtimes were more mixed (Figure 5.6).

Figure 5.6: Responses to question - *I think about the other things I need to do when I am helping the resident eat and drink.*



Most strongly agreed that they remembered what needed to be done to help the resident to eat and drink safely 58% (54) but there was less strong agreement about whether they made decisions about how to feed the resident, which suggests that they would use their initiative when delivering day to day care (Figure 5.7).

Figure 5.7: Responses to question - *I make decisions about how to feed the resident with swallowing difficulties.*



Environmental context and resources

The questionnaire used three items that focused on the environmental context and resources components of safe swallowing. Participants indicated that they had access to the right equipment to help residents eat and drink safely 48% (44) and that they were instructed what to do to help residents to eat and drink safely 32% (30). Adequate time to feed residents was not seen as an issue.

Social influence

The questionnaire used four items that focused on the social components of safe swallowing. Participant strongly agreed with the statement that they were able to ask the qualified nursing staff for advice about helping the resident to eat and drink safely and that the care plan was followed by other healthcare assistants. However, participants also reported that they were not able to rely on their HCA colleagues to tell them how to help residents eat and drink safely (Figure 5.8) and that qualified nursing staff did not check that their support for residents with swallowing difficulties was consistent with the care plan (Figure 5.9).

Figure 5.8: Responses to question - *I can rely on the other care assistants to tell me how to help the residents to eat and drink safely.*

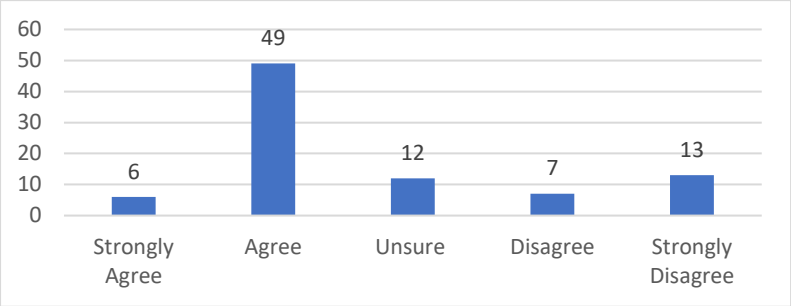
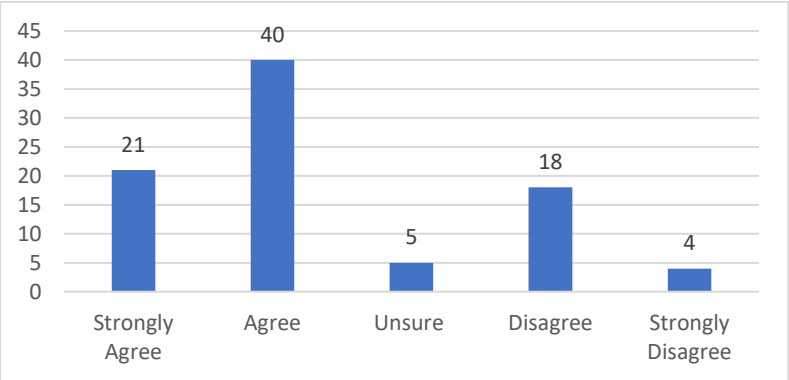


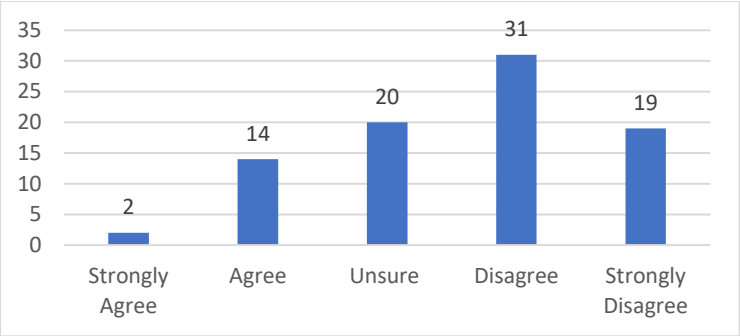
Figure 5.9: Responses to question - *Qualified staff check that I am following the care plan when I am helping the resident to eat and drink.*



Emotion

The questionnaire used three items that focused on the emotional components of safe swallowing. Few participants that they were worried that residents might choke while they were helping them to eat and drink 16% (15) (Figure 5.10) or that they were giving the appropriate care at mealtimes 20% (19).

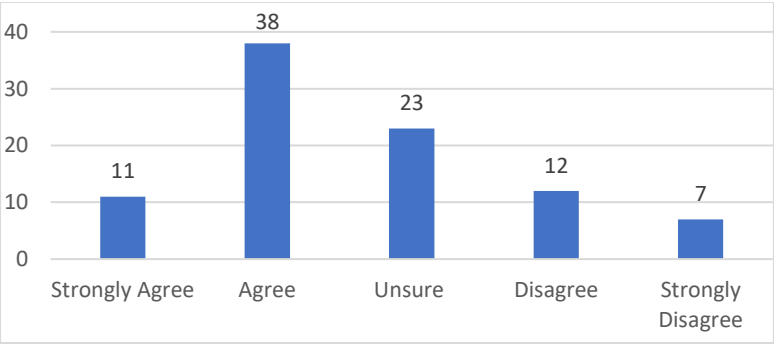
Figure 5.10: Responses to question - *I worry about whether I am giving the right care when I am helping the resident to eat and drink.*



Action planning

The questionnaire used two items that focused on the action planning components of safe swallowing. 79 (85%) participants agreed or strongly agreed that they read the care plan before a mealtime so that they could plan how to help the resident to eat and drink, with a third (35) strongly agreeing to this statement. However, agreement was less strong in relation to planning when they would help the resident, although this may reflect the lack of control that HCAs have over the allocation of tasks (Figure 5.11).

Figure 5.11: Responses to question - *At mealtimes, I plan when I will help the resident with swallowing difficulties to eat.*



In general responses to most questions tended to skew towards strongly agree or agree. This may have been due to the relatively small number of competed surveys included in the analysis. It may also reflect a tendency for healthcare assistants to offer answers that they thought they would be expected to give or their limited knowledge of the issues surrounding the management of residents with dysphagia.

In conclusion, this survey would need further development and testing if it is to be used to evaluate safety behaviour among care workers in care home settings.

Chapter 6
Phase 3 Results

Stakeholder Verification

Focus group

Ten participants contributed to the focus group, six nursing and care staff from the two participating care homes, a lay representatives and three members of the SLT team responsible for advice to the two homes. The group was convened at one of the care homes and was scheduled for three hours due to the clinical commitments of staff.
The discussion related to which level of staff would have the appropriate characteristics and level of skills to undertake the role of the DLP suggested that in general a registered practitioner, a nurse of a SLT, would be the best fit for the role. A range of reasons were given for this, the strongest being that a registered practitioner would be able to model safe behaviours and had the authority to supervise practice, deliver education and assess competence. In addition, they were perceived to have the appropriate levels of knowledge and skill in relation to establishing a safe swallowing culture. The arguments against a senior health care assistant taking on the DLP role were focused on the resource implications in terms of workload, the perceived lack of authority in relation to other staff, and the fact that residents and relatives would have greater confidence in a qualified member of staff. There was general agreement that financial incentivisation of the role would make it more attractive to staff, but that this had an impact on the organisations ability to afford the role. The group also considered that liaising with the SLT, on-the-job training, supervision and competency assessment were core elements of the role.

In terms of the location of the DLP, it was felt that a range of models could be used depending on contextual factors such as the size of the home, the complexity of the resident population and the skill mix of the staff. Both on-site and off-site models were viewed as having advantages. On-site models were perceived to offer the opportunity for driving continuous improvement through education and supervision. The off-site model was attractive to the care-home staff as it offered the potential for sharing the cost of the practitioner for smaller organisations. The service user participant felt that there was a case for having an offsite registered practitioner who facilitated on-site mealtime practitioners who were senior HCA's. There was also a suggestion from the care home managers that the registered practitioner could be located in the frailty team in acute trusts.

At a wider system level there was agreement that safe swallowing needed to be a focus in regulatory inspections by the CQC and that any member of care staff who was involved in feeding residents with swallowing difficulties should be assessed for competence and the SLT participants suggested that the RCSLT Safe Swallowing Routines might provide the basis for

this. A perceived barrier to safe swallowing is the requirements of statutory information governance legislation, which was felt to limit the ability of staff to display prompts or information about individual residents in a way that was visible to staff, and something that is subject to inspection during CQC visits. The suggestion that training tools and material needed to be consistent and that a digital application would assist with linking recommendations and serious untoward incidents to individual resident records and reducing the workload associated with developing materials.

In summary it was felt that a DLP was a feasible role and that different models could be used to ensure that the role was implemented in the context of available resources. Any further study should demonstrate that the DLP role prevent hospital admissions and improve experience for residents.

Chapter 7
Discussion

The aim of this feasibility study was to investigate the appropriateness, acceptability and potential for a dysphagia link practitioner (DLP) role to promote, establish and monitor enjoyable nutrition and hydration care that is safe and effective for people with dysphagia living in residential and nursing care homes. We focused on what needed to change to increase adherence to safe nutrition and hydration guidance and improve resident experience and whether a DLP role was a feasible approach to changing staff practice and behaviour.

Understanding current nutrition and hydration care of residents with dysphagia and how the practice of care staff was informed by SLT advice was critical to identifying what aspects of care might need to change. This was explored by interviewing staff, observing practice, and undertaking a safety behaviours survey using the theoretical domains framework (TDF), to identify potential target behaviours that were amenable to change. The COM-B model (capability, opportunity and motivation) was applied to the triangulated findings of phases 2a and 2c and the feasibility of using a DLP role to improve dysphagia care was explored through a stakeholder workshop and interviews. The findings are a snapshot of the nutrition and hydration care of resident with dysphagia at two care homes that may be transferable across similar organisations. The mixed methodology has enabled us to confirm the findings by triangulating data from different sources and provide an in-depth perspective of what happens at mealtimes and develop insight in to how a DLP might contribute to improving the mealtime experience of residents with dysphagia. Our findings demonstrate the complex relationships between the workforce, the care environment, available resources and access to specialist advice that impact on the experience of residents with dysphagia.
The discussion summarises our findings and focuses on how a safe swallowing culture could be established through a DLP role and how staff capability, opportunity and motivation can be targeted to improve nutrition and hydration care and resident experience.

Observed and perceived practice compliance with safe swallowing recommendations
The starting point for ensuring that residents with dysphagia are assisted to eat and drink safely is referral to the speech and language therapy (SLT) team for assessment and advice. We found that SLT recommendations were mostly incorporated into the resident's care plan and whilst 80% of these included advice on food and fluid modification, other strategies to support safe swallowing such as alternating food and drink, prompting the resident during feeding, ensuring that they had completed the swallow and their throat/mouth was clear appeared in less than 40% of care plan/SLT guidance. The care plans commonly included additional advice on posture and supervision during mealtimes but 30% of the elements recommended by the SLT were not referenced accurately in the care plan. Overall, the scope

of the recommendations on the safe nutrition and hydration of residents with dysphagia was limited, sometimes inconsistent with SLT recommendations and mostly focused on food and fluid modification, and care plans on posture and supervision.

Observations of care at mealtimes found greater than 90% compliance with SLT/care plan recommendations for food texture (determined by the kitchen), posture and alertness of the resident during feeding. Compliance with expected practice was less than 60% for alternating food and drink, prompting the resident during feeding, ensuring that they had completed the swallow and their throat/mouth was clear. Prompting and completed swallow appeared in two-thirds of recommendations but the other elements in less than 30%.

Information about residents' support needs for eating and drinking was conveyed verbally either by senior staff during the daily 'handover' or from their colleagues. It appeared that staff often added the other elements of good practice such as alternating food and drink, prompting and waiting for the throat to clear, and that these may have been acquired from experience of observing a resident eating on many occasions or information from other staff rather than referring to the care plan. In addition, there was little association between the recommendations in the SLT and/or care plan and the actual care delivered. For example, supervision during mealtimes was recommended in all the care plans but did not occur in a third of observations, but positioning was referred to in nearly all care plans and occurred in all but two observations.

Compliance with recommended fluid thickness only occurred on 68% of occasions and thickening was not closely aligned to the required IDDSI level, with some residents given thickened fluids even though these were not recommended. Nutrition care was less safe when residents with dysphagia were being fed in the dining room. Compliance with prompting, supervision and waiting for the throat/ mouth to clear, was significantly lower in this setting even though multiple care staff were present. Care that was likely to increase the risk of aspiration, such as using large spoonful's of food or offering drinks in beakers and lack of monitoring/assistance was not uncommon.

In contrast, responses to the safety behaviour survey suggested that only a third of respondents referred to the care plan before helping a resident to eat, although most said that they thought the care plan guidance was important and that there were consequences for them and the resident if they did not follow recommendations, they reported relying on their memory to know what to do. Relying on verbal communication and memory risks not all those involved in delivering care, including relatives, being aware of the SLT guidance and changes may not be reliably disseminated. This may result in poor practice becoming embedded, and inexperienced or new staff not being aware of how to support the resident

to eat and drink safely. Other studies have also identified SLT concerns about the dissemination of information, particularly in the context of high staff turnover[105].

These findings suggest that recording and communicating the SLT recommendations for residents with dysphagia and ensuring that care staff adhere to them require solutions at a system level that create and embed a safe swallowing culture. This would require information systems that limit the dilution of recommendations and provide staff with the necessary information at the point of care and a commitment to continuous learning and supervision to promote safe and optimum resident experience.

Capability - gaps in knowledge and skills

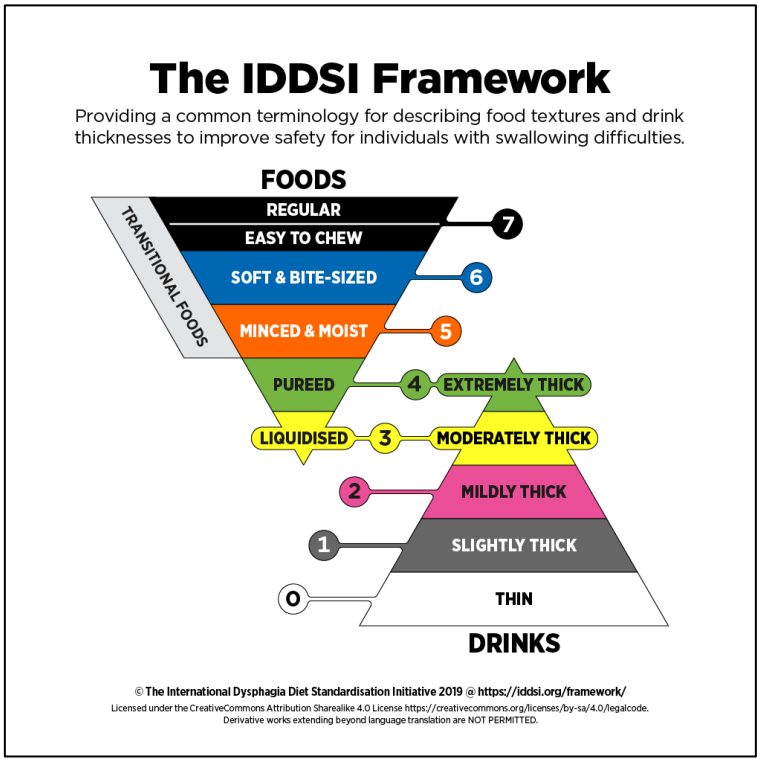
Staff reported receiving little formal education on dysphagia and this was most likely to be in the form of training on IDDSI levels. As a result, they had a limited understanding of the different causes of dysphagia and how this influenced the strategies required to manage it safely. Thickened fluids frequently featured in SLT and care plan guidance. Increasing the viscosity of liquids is designed to support safer swallowing by reducing the flow of fluids in the mouth and the risk of liquids entering the airway[106]. However, even where swallowing problems are due to a delayed swallow reflex there is little evidence to support their use in people with dysphagia. In a recently updated systematic review, two RCTs that used nectar thickened liquids or honey-thickened liquids found no evidence that they improved mealtime performance and quality of life and no significant effects on aspiration or pneumonia[107]. Other studies have suggested that in people with dementia, thickened fluids adversely affect the quality of life and lead to dehydration and malnutrition[39, 106, 108]. Nonetheless, altering food texture and thickening fluids was perceived by care staff to be the key strategy for supporting safe eating and drinking in residents with dysphagia.

Although staff reported being confident of their knowledge and skill in helping residents with dysphagia to eat, all sources of data indicated that they were less confident about how to help a resident who coughed or choked, and this caused them anxiety. If a resident had an episode of coughing whilst eating, then staff would presume this meant they needed thickened fluids. This is perhaps understandable given their anxiety about managing residents who coughed or choked during feeding, and their perception that thickening fluids were the main solution for swallowing difficulties. However, staff would not always recognise factors that might have contributed to the resident coughing, such the use of large or heaped spoonful's, inappropriate positioning or an inadequately alert resident and would not therefore make the link to other strategies that would support safe eating and drinking and avoid coughing or choking. The safety behaviour survey found higher levels of confidence about the role of the SLT and the importance of food and fluid modification but less certainty about how much food to offer in each mouthful.

Unconscious incompetence, where individuals lack the metacognitive skills required for accurate self-assessment of their competence, has been recognised as an issue among care home staff [68, 109]. Reflecting on existing knowledge and practice is key for the 'unlearning' that is required for new learning to take place[110]. Care staff are unlikely to be exposed to this form of learning because unlike professional staff who are required by their professional code to reflect in and on practice, care staff do not hold qualifications accredited by a professional body and are not formally regulated [68]. Unconscious incompetence and confirmation bias may be factors in explaining the responses given to most questions in the safety behaviour survey being skewed towards agree and strongly agree. Two thirds of the care workers who answered this survey were confident about their knowledge and skills in supporting residents with dysphagia to eat and drink safely.

Reliance on thickened fluids could also have been exacerbated by the IDDSI framework which is ambiguous to the non-expert and could give the impression that residents on pureed and liquidised food should also be on thickened fluids (see figure 7.1). The Safety Behaviour Survey indicated that care staff were confident about this aspect of care. However, our observations suggested that staff automatically expected a resident who was recommended pureed food to also require thickened fluids. In one of our observations this misconception resulted in staff applying apparently practical solutions by mixing the residents' soup with the meal to 'thicken' it and adversely affect the resident's mealtime experience.

Figure 7.1 IDDSI Framework



Source: www.IDDSi.org

A better understanding of the role of modified food is not only relevant for care staff but also for kitchen staff. Milte et al (2017) found that texture modified meals did not take account of individual preferences and were reported to be uninspiring and repetitive[111]. The kitchen manager in our study highlighted the difficulties of creating appetising pureed meals and the lack of opportunities for kitchen staff to develop the knowledge and skills required to do it well.

One of the factors that influenced the focus on food and fluid modification was the mechanism used by SLT to record their advice, and their concerns that detailed guidance would not be accurately communicated and therefore needed to be simple and concise. The SLT are generally asked to write their recommendations for a particular resident in their multi-disciplinary treatment record which allowed little space for detailed advice. What was written would then be transcribed into the care plan. Specific swallowing support strategies that SLT might recommend, for example the value of encouraging the resident to eat independently, using plate guard or a handover hand technique were rarely included in this concise guidance.

Our data showed that training in relation to the management of dysphagia was limited for both care and professional staff. The Care Certificate has formed the basis of training for non-professional care staff since it was introduced by Skills for Care in 2015[74]. It is recommended to be used as part of the care workers induction programme and includes basic information on fluids and nutrition but not any detail on managing residents with dysphagia. . There are no defined requirements for specific training in the care homes on dysphagia and the training given seems to predominantly focus on food and fluid modification rather than the broader elements of safe swallowing strategies. Although SLT may be involved in delivering training often care homes contract training to outside organisations without these specialist skills.

In the absence of broader education on dysphagia it is difficult to see how care staff would learn about the importance of these strategies to support safe swallowing and incorporate them into their practice[112]. This illustrates the value of considering both the training and education needs of care staff. Training may confer specific skills which are task-orientated, such as making thickened fluids correctly or positioning a resident upright. However, to successfully adapt the principles of safe care to individual residents, to solve problems and create effective solutions, care staff need education on why dysphagia occurs, where an SLT referral may be appropriate and the factors that need to be considered when helping to support resident to eat and drink safely.

Workers who deliver care in support of professional staff have been found to feel undervalued by their employers and unsupported in developing clear career pathways[113]. A recent realist review identified a number of elements which explained ‘what works’ to support the development of support workers in older people's services[114]. These included

aligning training to the real work of the support worker, paying attention to their starting points, making use of incentivisation, prioritising workforce development using a planned approach and engaging the right mix of people in designing it[114]. These principles do not appear to have been in place in relation to managing residents with dysphagia in the two homes included in this study.

Opportunity - resources and environment

The time constraints of supporting the nutrition and hydration of many frail residents were an important factor in shaping how care was delivered by healthcare assistants. Assisting a resident to eat was time consuming and with many residents to feed at the same time there was pressure to get the job done as quickly as possible. This contributed to the practice of using large spoons to feed residents and was perhaps a factor in not encouraging residents to feed independently as this was likely to take longer. The dining room is often seen as providing a better environment for residents to take meals as it gives the sense of a communal experience. However, in terms of residents with dysphagia they received significantly less direct assistance and supervision to eat and drink safely in the dining room than residents in their own room. The presence of several care assistants diffused responsibility for supporting individual residents and staff were commonly inattentive and did not notice hazardous situations. The observed practice was not borne out in the responses to the behaviour survey where two thirds of respondents strongly agreed that they always watched residents while helping them to eat and drink and few thought that other tasks took their attention at mealtimes.

Equipment is an important factor in supporting safe eating and drinking for residents with dysphagia, but it was not observed to be used effectively. Equipment in room such as fluid thickener or beakers, were used as prompts to determine the care required. The hazards of using beakers for residents with dysphagia were not always recognised, even when associated with episodes of coughing. Specific equipment aimed at supporting independent eating such as plate guards and adapted spoons were not seen to be recommended for individual residents. However, even if made available, such equipment was found to rapidly disappear and would then not be recognised as a recommended item for a specific resident. The survey responses suggested that staff thought they had the right access to equipment but again this may reflect unconscious incompetence in not recognise where specialist equipment could play a role in supporting residents with dysphagia.

Communication about resident's care needs is hampered by concerns about data protection. Prior to the introduction of GDPR, specific food, equipment and support recommendations from the SLT could have been displayed in the resident's room. This practice is now discouraged by many care homes, ostensibly on the direction of CQC and care staff therefore do not have a quick and easy way of checking what is required.

Motivation – roles and responsibilities

Our observations and the responses to the safety behaviours survey suggest that healthcare assistants were aware of their delegated professional responsibility for the safety of residents with dysphagia during mealtimes and understood that the SLT recommendations were important and needed to be followed. In addition, they recognised that it was not part of their role to make decisions about mealtime care. This conflicts with our observation that staff made individual decisions to include interventions that were not in the care plan and were based on their knowledge and experience. However, the respondents' perceptions of their level of knowledge underpinning these responsibilities were not demonstrated clearly during the observations, and survey responses suggested that nearly half found it difficult to follow the recommendations in the care plan and were unsure how to manage a resident who was having difficulty in swallowing. Motivation to 'get the job done' was observed and staff indicated that they became frustrated when it took residents a long time to eat and drink but conversely staff reported that other tasks did not encroach on the time available for mealtime support. They were aware that there were adverse consequences for both the resident and themselves if SLT recommendations were not followed. Staff were anxious if a resident were observed to start coughing during mealtimes. However, referrals to SLT were not always appropriate and reflected a lack of knowledge about causes of swallowing difficulties and fear of criticism for delaying escalating the concerns by not seeking a specialist advice. The home would often wait several days before the SLT was able to attend the home to review the resident and would sometimes use thickened fluids in the interim.

Behavioural intervention functions and policy requirements

Our findings suggest that both practice behaviours and systems need to be improved to establish a safe swallowing culture that ensures that residents with swallowing difficulties are assisted to eat and drink in a way that enhances their mealtime experience and minimises adverse events that may result in hospital admission. Behaviour intervention functions to improve physical and psychological capability would include training and education, but also modelling of safe feeding practices and enablement using supportive supervision. Physical opportunities to do the right thing when selecting and using equipment and allocating staff to assist residents to eat and drink could be achieved through restricting the use of beakers and large spoons at mealtimes for all residents and thinking about how mealtimes might be restructured or rescheduled to enable staff to meet the competing demands of other activities. The use of digital tools, available at the point of care, that provide appropriate imagery and recommendations for mealtime assistance would facilitate consistency and avoid the problems of miscommunication and GDPR. Intervention functions that focus on the motivational aspects of behaviour can also be achieved through education, training, modelling and enablement. However, the use of positive feedback and imagery that highlights the consequences of poor practice can be used to persuade and motivate staff to maintain optimum standards of care.

The system of care for people with dysphagia is also in need of revision. The process of referral for SLT review caused problems for both care staff and SLT. The use of generic referral forms which do not specify criteria or prompts for SLT referral do not encourage rational decision making and result in poorly targeted referrals[106]. The lack of a standardised competency-based education and training programme for supporting the nutrition, hydration and feeding needs of people with dysphagia means that training is often localised, and that practice is not supervised and assessed by registered practitioners. The availability and use of information technology is variable across the care home sector. Only one of our participating homes had electronic records and the use of digital decision-support tools was limited. While adverse events should be reported it is likely that these are under-reported by care staff and the links between dysphagia, micro-aspiration/ aspiration and hospital admission for pneumonia are not made. While there are guidelines for safe swallowing developed by the Royal College of Speech and Language Therapy, the staff in the care homes were unaware of their existence and few of the recommendations were evident in care plans. The stakeholder feedback was in clear favour of greater recognition of the issue of dysphagia care by regulators (CQC) and the requirement for standardised education, training for staff and referral processes to SLT.

Creating a safe swallowing culture

Although the study identified good practice in supporting dysphagia residents to eat and drink safely, the workforce and system issues it has highlighted need to be addressed to create a safe swallowing culture and improve the experience of residents with dysphagia (table 7.1). This would require a more interdisciplinary approach [115] which could potentially be supported by a DLP role.

Table 7.1 Components of a Safe Swallowing Culture in Care Homes

- Safe swallowing routines that are widely used and 'habitual/routine'
- Sense of responsibility to enhance feeding/ mealtime experience
- Time to support safe feeding is a priority at mealtimes
- Staff with enhanced knowledge and understanding of how to manage swallowing difficulties
- Clear information about food/fluid texture – what it means, what is important
- Utensils/Specialised equipment available and used
- Assistance/supervision recognised as important and staff allocation organised to support it
- Rapid and appropriate referrals to SLT

Potential role for a Dysphagia Link Practitioner

The consultative SLT model currently available to care homes is only able to provide limited advice and practical support for residents with swallowing difficulties and staff. There is a

significant gap between the expert knowledge of SLT and the staff caring for residents with dysphagia and a communication system that relies on brief written guidance which fosters inappropriate referrals and deficiencies in supporting residents to eat and drink safely. The concept of a link practitioner (LP) role, where an individual based in the care setting has enhanced knowledge of a specialist area and acts as a bridge between care staff and a specialist service, have become an established model in acute care settings. However, there are few examples in non-acute settings or care homes, although the concept of 'champions' for some aspects of care can be found. Having access to onsite expertise in dysphagia and mealtime experience could help care staff distinguish feeding problems that require SLT referral from those that require different support strategies. Such a role could also help to train, educate, and supervise care staff and model how to better manage individual residents and identify practice improvements. The Assistant Dysphagia Practitioner level role as described in the training and competency framework for speech and language therapists could map across to the competencies required for a DLP [116].

Stakeholders in the care home recognised the value of an DLP in supporting staff training, guiding on SLT referrals, and advising whilst waiting for an SLT assessment. The SLTs that we interviewed saw the value of a skilled confident member of care staff who would be able to provide support to peers to follow recommendations for safe eating and drinking and improve experience for both staff and residents (see table 7.2).

Table 7.2: How a DLP could improve resident experience and safety

- Support the creation of a safe swallowing culture, with clear guidelines and where staff feel secure asking for help
- Provide education and training to give a clearer understanding of swallowing difficulties and provide staff with the tools to be more skilful during mealtimes
- Support the process of identifying and managing residents with dysphagia and referral to SLT, improving the quality of referrals to save time and effectively communicate issues of concern with SLT.
- Encourage and support feeding safety strategies to support safe swallowing e.g., prompting, hand-over-hand, equipment to support safe feeding, oral hygiene
- Review and promote the availability of specialist equipment e.g., plate guards, adapted spoons, beakers, so that staff have the required resources available to them to do their job well in a time efficient way.
- Improve care staff understanding of the causes of coughing and choking and strategies for management
- Encourage the application of safe feeding strategies, including effective assistance and supervision, for residents with dysphagia in the dining room

Success criteria for an DLP role

The LPs we interviewed identified some underpinning factors that need to be considered if the concept is to be successfully translated into a care home-based Dysphagia Link Practitioner (DLP). They reported that a passion about the specialty was a key factor in inspiring them to take on the role and personal motivation was required to support both acquiring and sustaining the required level of knowledge and skill to perform it effectively. Strong interpersonal skills were also seen to be important to enable advice and guidance to be delivered clearly and confidently. The care home staff recognised that a person taking on a DLP role would need sufficient authority and independence to perform the role and would therefore probably need to be a senior care assistant or registered nurse/ practitioner.

Being a part of the care team seen as being a key to the success of the role, enabling the LP to understand challenges associated with delivering care. However, this means that a LP has to manage competing demands, so they can provide specialist advice as well as performing their core role. In the care home setting this conflict was perceived as a particular challenge for a workforce that is already under-resourced and there was concern that it would result in care home staff relying on one person for the specific expertise who might not always be available. A model where the DLP was co-located within NHS services such as the frailty team was preferred by care home stakeholders to avoid the role be consumed by daily care responsibilities, although this might compromise the benefits of the DLP being part of the care team.

Link practitioners did not report having a specific financial incentive to undertake the LP role, but they did perceive it to be a route to career progression. If a member of the care home team with an interest in learning more about managing dysphagia is to be motivated to take on the extra responsibilities of a DLP role then establishing a mechanism to incentivise this will be necessary. In addition, support from both the SLT service and from the care home organisation would be necessary for initial training, ongoing development and the flexibility and authority to perform the role.

If the key components of an effective LP are incorporated into a DLP role, it has potential to address both the workforce and system issues identified in this study and support the development of a safe swallowing culture in care homes. The view of the stakeholders was that the DLP would need to be a registered practitioner, a nurse or SLT, to ensure they had the appropriate level of knowledge and skill to establish a safe swallowing culture, the ability to model safe behaviours, authority to supervise practice, deliver education and assess competence, and ability to gain the confidence of residents and relatives. Senior health care assistants were perceived to be too difficult to release from duties delivering direct care and were perceived to lack authority in relation to other staff. Financial incentivisation of the role

was seen to be important to make it attractive to staff but would make it more difficult for organisations to afford to support the role.

Testing the efficacy of a DLP role

This study has provided some essential information about the gaps in the delivery of safe nutrition and hydration care for care home residents with dysphagia. It has identified some key workforce and system issues that need to be addressed and defined the characteristics of a DLP role that could support the creation of a safe swallowing culture. However, a future study to test the efficacy of a DLP would need to consider the following:

1. *Identifying measures of success*: although the COVID pandemic prevented us capturing data on the incidence of adverse events (aspiration, pneumonia, hospitalisation), the limited data we did collect suggests that if these were to be used as the outcome measure, a considerable number of large care homes would be required to participate if a a cluster randomised trial design were to be adequately powered. Process measures may be a more practical and feasible approach to measuring success, although we have demonstrated that measuring adherence to specific recommendations challenging because of the limited scope of the advice.

2. *Establishing the intervention*: recruiting to DLP roles from within the care home participating in such a study is likely to be challenging given the fast turnover of staff and limited availability of staff with the appropriate level of clinical and non-clinical skills required to perform the role effectively. Other options would be locating the DLP within the local NHS frailty or SLT team or creating a home based 'researcher-in-residence' DLP role.

3. *Data collection*: The study has demonstrated some of the challenges of capturing outcome data in an environment where most of the communication is conducted verbally and establishing consistent practice is difficult in the context of a staff and resident turnover and significant and variable resource pressures.

4. *Design:* This feasibility study has demonstrated that establishing a DLP to reduce adverse events associated with aspiration in residents with dysphagia would be a complex intervention requiring change at a system, organisational and individual staff level, which could not be easily tested in a randomised controlled trial. Such a trial would need to be cluster randomised (CRCT) and would require recruitment of a considerable number of large care homes with the resource to engage with the intervention. While the EnRICH network may support this our experience of conducting this and other studies in the social care setting suggest that managing a large scale CRCT would be fraught with difficulties. Our findings suggest that the aim

of the DLP role would be to establish a safe swallowing culture by addressing a range of system and workforce issues. If its findings are going to be relevant in the real-world then the research design needs to include evaluation of both process and outcomes with interventions adapted to the context of each participating home. This could be achieved using an action research design with the first stage focused on enabling the DLP to develop and implement the safe swallowing strategy within the home.

Limitations of the study

The conduct of this study was severely affected by the COVID-19 pandemic which started in the United Kingdom shortly after we had commenced data collection. The impact of this on the care home sector was immense with the imposition of strict access restrictions that prevented us observing practice and interviewing staff and many deaths among the residents. The high prevalence of COVID-related pneumonia, hospital admissions and deaths, together with our inability to access the homes meant that we were unable to collect accurate data on the adverse events associated with dysphagia as we originally intended. Although we were eventually able to capture in-depth data on the mealtime experience of residents with dysphagia this was from only two homes and may not be an accurate reflection of care in all homes although we believe that much of it is transferrable. The safety behaviour survey obtained data from staff in several other residential care homes, but despite efforts to increase the sample we were unable to obtain sufficient responses to undertake the confirmatory factor analysis and as with many surveys of this type there was evidence of confirmation bias in the responses we received.

Reflection on involvement of PPI

As with previous experience of research involving members of the public, one of the difficulties is maintaining adequate contact so that PPI members feel that they are part of the team and are involved in the study. The pandemic impacted hugely on this in that our observations in the care home setting had to be halted, our lay co-applicant was therefore unable to continue with the observations as planned. The hiatus with the stop-start of the study between waves of the pandemic also meant we were not in regular contact with our PPI members which meant that they sometimes felt a bit out of the loop. Our previous experience meant that we had costed sufficiently for PPI involvement in the study and equally importantly we built in flexible and informal approaches to meet the needs of our lay members, for example scheduling meeting times to fit with PPI members and meeting in venues that were easily accessible by public transport.

Recommendations

Knowledge/skills/Training/education:

1. Make use of existing resources: e-learning for healthcare Dysphagia – e-learning for healthcare (e-lfh.org.uk); RCSLT guidelines for dysphagia care in care homes.guidance-on-the-management-of-dysphagia-in-care-homes.pdf (rcslt.org)
2. HCA staff should meet core competencies in supporting residents with swallowing difficulties before they can support residents to eat and drink
3. Training for care home staff needs to include defined content on managing dysphagia and SLT input to training commissioned
4. Kitchen staff able to be able to access training on providing a variety of good quality modified foods
5. IDDSI framework is misleading for non-specialist staff in care homes and needs to be accompanied by better targeted material
6. RCSLT guidance need to be actively disseminated and promoted within the care home sector

Communication between Care homes and Specialist services:

- Agreed (standardised) approach to referral from care homes for specialist SLT advice/support
- Agreed procedure for documentation of SLT recommendations to include more guidance on safe swallowing strategies
- effective information sharing process across all team members (including residents and family members).

Care home environment

- Embed strategies that enable greater choice for residents e.g., where meals are eaten, what is offered - likes/dislikes preferred portion size, social aspects of dining etc -
- Make specialist equipment available and establish procedures for obtaining, storing and utilising it.
- Enable key care information to be displayed in residents' rooms to ensure resident safety and create an enjoyable mealtime experience
- Recognising that verbal communication is the dominant mechanism by which care staff learn about resident care needs is important when considering strategies to improve the safety of nutrition and hydration care. Develop systems that enable knowledge and information on how to care for residents to be shared efficiently e.g., staff huddles

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Reference List

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Appendices

Appendix – Chapter Two: Methods (all phases)

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Appendix – Chapter Two: Methods (all phases)

Appendix 2.1 Interview schedules/ topic guides

Delivering safe, effective nutrition and hydration care to residents with dysphagia: A theory-based approach to developing a link dysphagia practitioner

Phase 1a) Staff Focus Group and Interview Topic Guide

Introduction

Thank you for agreeing to take part in our study. We are conducting these interviews/groups in order to explore your views and experience of all aspects of current practice in the management of residents with swallowing difficulties and explore what might be done to improve that practice.

Introductions from convener(s) and participants
Consent forms issued, read out, discussed and signed
…
Ground rules for successful focus group running
We want to ensure everyone gets a chance to put forward their point of view.
To help ensure that everyone gets a chance to speak and we cover all the issues we need to, I may have to sometimes ask us to stop discussing something and move on to another question.

It won't be because we are not interested in what you have to say, it will just be because we have a few things we need to cover and we want to make sure everyone has a fair chance to put forward their views. And of course it helps the recording if we don't all speak at once and we speak clearly.

Reporting
We will share the findings from this research because we want it to have a real impact.
As we said in the consent form, if we quote from anything that is said by anyone today, it will be completely anonymised so you can be assured you can be completely open and honest in your answers.

Discussion

***Knowledge**:*

- Can I start by asking you what you know about dysphagia?
- What do you know about the link between dysphagia and morbidity/ swallowing difficulties and ill-health (such as, chest infections, dehydration, and malnutrition)?
- What factors do you think might contribute to fewer of your residents with dysphagia being at risk for chest infections, dehydration, malnutrition, admission to hospital?

Skills:

- Thinking about managing residents with dysphagia, what skills do you feel you have?
- Have you received any training on the care of residents with dysphagia?

Skills (managers):

- Thinking about managing residents with dysphagia, what skills do you feel your staff have?

- Do your staff receive any training on the care of residents with dysphagia?

Social/professional role identity

- How far do you consider it to be part of your professional role to promote best practice for caring for residents with dysphagia?
- How well do you think information about best practice in relation to caring a resident with dysphagia is shared between SLT and care staff?

Social/professional role identity (managers)

- How far do you consider it to be part of your staffs' professional role to promote best practice for caring for residents with dysphagia?
- How well do you think information about best practice in relation to caring a resident with dysphagia is shared between SLT and your care staff?

Beliefs about capabilities:

- How confident are you in supporting residents with dysphagia to eat and drink?
- How confident are you in overcoming any difficulties that you may face in supporting residents with dysphagia to eat or drink?
- Would you say you experience any specific problems due to lack of confidence in this area?
- Is there anything that would make it easier for you?

Beliefs about capabilities (managers):

- How confident do you feel your staff are in supporting residents with dysphagia to eat and drink?
- How confident are your staff in overcoming any difficulties that they may face in supporting residents with dysphagia to eat or drink?
- Would you say they experience any specific problems due to lack of confidence in this area?
- Is there anything that would make it easier for them?

Beliefs about consequences (anticipated outcomes):

- What do you think are the advantages of having specialist SLT recommendations for residents with swallowing difficulties/dysphagia?
- What do you think the advantages of having a dysphagia link practitioner based in the home might be?
- What do you think are the disadvantages of having specialist SLT recommendations for residents with swallowing difficulties/dysphagia?
- What do you think the disadvantages of having a dysphagia link practitioner based in the home might be?

Beliefs about consequences (managers) (anticipated outcomes):

- What do you think are the advantages of having specialist SLT recommendations for those residents with swallowing difficulties/dysphagia?
- What do you think the advantages of having a dysphagia link practitioner based in the home might be?
- What do you think are the disadvantages of having specialist SLT recommendations for residents with swallowing difficulties/dysphagia?
- What do you think the disadvantages of having a dysphagia link practitioner based in the home might be?

Motivation:

- How important would you say the awareness of safe, effective nutrition and hydration care for residents with dysphagia is to you?
- Are there other concerns or priorities with your residents that take priority/are more important?

Motivation (Managers):

- How important would you say the awareness of safe, effective nutrition and hydration care for residents with dysphagia is to your staff?
- Are there other concerns or priorities with your residents that take priority/are more important?

Memory, attention & decision processes:

- How do you decide what you need to do to assist a resident with dysphagia to eat and drink?
- Would you usually make the decision to refer a resident to the SLT team and if so what would make you do this?
- How do you find out about what the SLT has recommended for assisting residents with dysphagia?
- How easy or difficult do you find putting the SLT recommendations for supporting resident with dysphagia to eat and drink into practice?

Memory, attention & decision processes (Managers):

- How easy or difficult do you think staff find putting the SLT recommendations for supporting resident with dysphagia to eat and drink into practice?

Environmental context & resources:

- What are the barriers and facilitators for assisting residents with dysphagia to eat and drink?
- Is there a system for seeking specialist advice on managing residents with swallowing difficulties?
- How does following the SLT recommendations for nutrition and hydration care for a resident with dysphagia affect your workload/staff workload?
- What happens if the condition of a resident with dysphagia changes? How is this managed?

Environmental context & resources (managers):

- What are the barriers and facilitators staff face in assisting residents with dysphagia to eat and drink?
- Is there a system in your home for staff to seek specialist advice on managing residents with swallowing difficulties?
- How does following the SLT recommendations for nutrition and hydration care for a resident with dysphagia affect staff workload?
- What happens if the condition of a resident with dysphagia changes? How is this managed by your staff?

Social influences (norms):

- Is there anyone at work who influences how you manage/care for residents with dysphagia? How does this happen?
- How do the care team generally feel about providing care for residents with dysphagia?
- What support do the care team get in relation to providing care for residents with dysphagia?

- do you feel your practice is influenced by members of the resident's family / carers? If yes, in what way?

Social influences (managers) (norms):

- How do the care teams across your home generally feel about providing care for residents with dysphagia?
- What support do the care team get in relation to providing care for residents with dysphagia?
- do you feel staff practice is influenced by members of the resident's family / carers? If yes, in what way?

Behavioural regulation:

- Is there extra work or planning involved in managing the care of residents with dysphagia?

Behavioural regulation (managers):

- Is there extra work or planning involved for staff in managing the care of residents with dysphagia?

Emotion:

- Do any emotional factors affect whether you are confident in supporting residents with dysphagia (anxiety, stress, fear)?

Emotion (managers):

- Do you think there are any emotional factors that affect whether staff are confident in supporting residents with dysphagia (anxiety, stress, fear)?

General questions about managing residents with dysphagia (Include asking managers)

- What improvements could be made to managing/supporting residents with dysphagia?
- What are the training needs of staff?
- What support do you think staff require?
- Do you think a Dysphagia Link Practitioner could help, and why/why not?
- What problems might there be for a Dysphagia Link Practitioner role?

Finally, is there anything you would like to add to what we've discussed about caring for residents with dysphagia?

Close – Thank people for their time. Remind about confidentiality and how participants can find out about the outcome of the research; and that they can speak to one of the research team if they have any questions/anything they wouldn't want to say in front of others.

Delivering safe, effective nutrition and hydration care to residents with dysphagia: A theory based approach to developing a link dysphagia practitioner

Phase 1b): Interview schedule for link practitioners

Introduction

Thank you for agreeing to take part in our study. We are conducting these interviews to explore your views and experience of being a link practitioner in order to understand how a Dysphagia Link Practitioner role to support the management of residents with swallowing difficulties might work and what the problems might be.

We will share the findings from this research because we want it to have a real impact. If we quote from anything that you tell us, it will be completely anonymised so please be assured you can be completely open and honest in your answers.

- Can you describe your link practitioner role and how it works?
- What made you become a link practitioner?
- What specialist knowledge have you required for the role? How did you obtain this knowledge?
- How do you keep yourself up-to-date with the specialist knowledge you need as a link practitioner?
- What additional skills have you needed to acquire for the role? How did you develop these?
- How has the relationship between the link practitioner and specialist service been built and maintained? What difficulties does it present?
- What organisational barriers have you encountered and how have your negotiated these?
- How has the role been accepted by your work colleagues? Have there been any problems/barriers? How have you negotiated these?
- Does your role require you to have any involvement with the family / careers of the patient? If yes, what?
- What are the main barriers to working effectively as a link practitioner?
- What are the main facilitators to working effectively as a link practitioner?

Close – Thank the participant for their time. Remind about confidentiality and how they can find out about the outcome of the research; and that they can speak to one of the research team if they have any questions.

Appendix 2.2 Framework Matrix Spreadsheet
Care Home Staff

	Construct									
Participant	**Knowledge**	**Skills**	**Social/ Professional Role & Identity**	**Beliefs about capabilities**	**Beliefs about consequences**	**Intentions**	**Memory, attention & decision making**	**Environmental context & resources**	**Social Influences**	**Emotion**
1 (MC) JHCA	Lacks knowledge Follows instructions from nurses but has no depth of knowledge. Knows where to find info. Knowledge on thickeners but not dysphagia. Knowledge from visiting a friend in hospital not workplace.	Limited skills - has general skills from training.	Lack of ownership of professional role. Asks for help. Performs tasks confidently but lacks understanding of why task required. Displays apathy towards job role.	Relies on qualified staff sees self as inferior. Lack of experience and knowledge, reliance on instructions from seniors implies limited beliefs about capabilities. "cause they know better than me".	Uses terms like "They say" performs actions with no reason as to why/ what he is preventing Lack of experience of aversive events. Lack of knowledge of dysphagia and lack of practical experience. Limited view on consequences of poor care.	Lack of promotion and lack of experience despite being at care home for 3 years implies limited goal setting and lack of intrinsic motivation (it is just a job, seems to not want to really interact with residents).	Memory Implied lack of reliance on own memory Attention Decision Making Relies on senior staff to make decisions. Lack of self-directed decision making.	Aware of care plan Received mandatory induction training, no mention of ongoing training. Relies on support of seniors - organisational support. Can access computers for additional information but relies on word of mouth.	Influenced by senior staff, relies on their decisions and decision-making	Does not feature. Displayed flat effect during interview.
2 (MH) JHCA	Basic knowledge of dysphagia. Has ongoing training but may be out of date. Individual care, knowledge of individual residents. Doesn't differentiate between actions for one resident or another – knowledge appears basic – small spoons, going slowly. Checks notes ?looking for changes (initiative) refreshing	Slow feeding, swallowing safety. Observing, patience, skills in feeding. Individualised care. Skills - Safe swallowing – taking time, waiting Patient, observant, attentive, interpersonal skills, compliance,	Checking with more senior staff- following their lead. Follows instructions and protocols. Takes pride in roll Best patient care paramount to MH fulfilling her job role. Role requires her to be a part of a larger team to ensure best care.	Belief in self-ability/ competency, confident. Has practical experience and knowledge to deliver good care. In addition to confidence in own capabilities acknowledges support from senior staff in decision making - advice/instructions from seniors/ having a supportive environment increases staff	Patient safety. Knows consequences of poor practise/unsafe swallowing procedures - therefore makes sure to follow safe swallowing practises. Believes in helping the residents and importance of good patient care.	Recognises need to assess patients by SLT. Intrinsic motivation - patient care features at centre whatever helps the resident	Cannot remember training on dysphagia. Relies on instructions/directions from seniors and care plans, therefore little memory involved. Has memory for specific resident needs, remembers each resident in detail. Integrates knowledge (from seniors and care notes)and practise (experience and interaction from residents) to make decisions. Pays attention to residents needs during mealtimes.	Nurses make decisions. Verbal exchange of information. Organisation provides ongoing training. Support from seniors. Relies on being given the correct textured meal from the kitchen and specialist knowledge from external specialists i.e., SLT. Involves holistic care from various	Influenced by senior staff and organisational culture. Follows directions and instructions given.	NA

	knowledge of food recommendations and thickeners and basic swallowing safety procedures. Has ongoing training but lacked interest for current course offered. Has good knowledge of residents, developed through experience and interacting with them.	communication, listening.		confidence in their own abilities			Patience, attentiveness, observant. Increases patient care and safe swallowing practises.	sources/people to ensure best care.		
3 (ADM) Agency Nurse	Knowledge of causes of dysphagia along with risks and consequences. Care plan is a source of knowledge a live document that must be kept up to date. Knowledge of causes of dysphagia risks. Deteriorations in condition and consequences. Open to new learning & knowledge acquisition. Understands key safety behaviours - supervision, posture. Deeper level of knowledge.	Demonstrates the ability to think through the assessment and care planning Clinical skills, initiative, communication, adaptable, investigate, observation, decision making. Self-motivated. Caring. Clinical judgement comes up as a key skill - integrate knowledge, practise, and experience to provide holistic care. Flexibility in terms of constantly evolving care,	Has a professional responsibility. Locum - recognises unable to know residents well. Supervising role clarity in role and responsibility of nurse. Has a personal/ professional responsibility to meet residents care needs Supervisory role. Ensures best care standards are being met - requires commitment	Professional responsibility, has completed mandatory training, Able to implement strategies. Competent. Responsible Feelings of capability linked to decision-making. Feel more competent to make on the spot judgements/initial diagnosis and responding appropriate treatment about patient care (important due to delays from SLT). Practical experience and knowledge increase feelings of capability.	Knowledge of dysphagia risks & consequences. Risk assessment. Recognised dysphagia is a significant issue. Consequences of poor care. Fear of litigation. Understands risks linked to dysphagia, foundation for why it is important to assess, diagnose, and treat (safe swallowing recommendations) to residents with dysphagia. Understanding consequences highlights importance of care, which increases standard of care.	Reviewing care during handover Demonstrates commitment to role, as well as to patients and ensuring their best care. Motivated by best care practise - intrinsic motivation. Goal is to provide best care possible and help patients.	Recognising deterioration – decision making - specialist needed. Demonstrates ability to think through the assessment and care planning process. Handovers are verbal. Recognising deterioration - decision making. Makes professional judgements and reviews care. Monitors and takes action. Presence of thickener in the room acts as a visual aid for recognising resident with dementia. Makes decisions - patient safety Use prompts in environment to make up for memory lapses (i.e.,	Documentation important for communicating information. Handovers are reliant on verbal communication. MDT Record keeping is important. Reliant on team and specialist expertise. Having a LP will enable liaison while waiting for SLT - slow responses, have support available. Prioritise residents with dysphagia during mealtimes. Structure has handover procedures. Staffing pressures lead to juggling responsibilities & time constraints.	Recognition of social aspects of eating. social environment that is multi-professional. Requires teamwork and liaising between different staff and experts to provide holistic and best care. Colleagues provide important source of knowledge and support.	Fear of litigation. Managing emotions Recognising visual aspect of food - psychology of eating. Provide encouragement and support for residents - explain what's on the plate. Food not looking like food ?distress, confusion, needs trust. Potential mental barrier to feeding Sensitivity and empathy. Be encouraging and supportive." Emotional factors to caring for residents.

	Reliant on specialist expertise to expand knowledge. Training from SLT. Aware factors associated with ageing. Education of start and residents' family important. Demonstrates knowledge of dysphagia and medical conditions linked to it. Has knowledge of thickeners and food textures, basic safe swallowing practises. Uses multiple sources of knowledge in the care of patients - integrates knowledge through clinical judgement (i.e. care plan, specialists, from residents, handover, mandatory training, common sense). Need to constantly update knowledge - new research and practises but also ask questions and observe residents - individualised care and best care for all.	updating care protocol to fit with residents ever-changing needs. Good record keeping - so knowledge can be shared but also to keep a check on any improvements or deterioration. Communication - both written and verbal. process. Level of knowledge and skills - clinical judgement.	to role but also passion and interest of role. Requires competence in decision making. "Using clinical judgement for best interests of residents".				thickener in room - the resident must require thickener). Good record keeping which is easily accessed also fills in where memory fails. Role requires careful, close attention given to each resident and their specific needs. Need to pay attention/monitor - notice a problem, to understand what the problem is (important as SLT can take time to respond). Ongoing attention/review - in case residents condition changes. Attention involves HCA feeding information to senior staff (HCA are in direct contact with residents more than nurses, but nurses have the knowledge/can implement strategies to ensure best care). "holistic care" Emphasizes using clinical judgement in decision making. Integrate practical skill/experience and knowledge (through asking questions, care plan, handover, etc.) to make decisions.	Need to manage families' expectations. Keep up to date with training "Staff shortages means that the senior staff have to step in to help the HCAs in addition to their own duties. Multi-professional environment - requires specialist knowledge from different sources i.e. GPs, SLT - access to specialist knowledge/ resources within the environment. Feeds into organisational support. However, there are delays in accessing external services/specialists - question of what is immediately available/what decision making they can do. Staff shortages compounded by many residents. Provides rationale for a link practitioner. Feels supported - access to resources/external		Acknowledges depressing nature of eating blended food - requires staff to encourage residents and be mindful of their needs to how they are feeling. It is a caring role and so naturally does evoke emotions, need to be mindful of those emotions in order to not become overwhelmed. "

	Good record keeping with updates/document changes. Relies on experts help with specialist knowledge to add to own knowledge. Sharing knowledge between departments ensures best/holistic care.						Relies on/appreciates specialist knowledge in decision making.	practitioners with specialist knowledge.		
4 (BD) Junior Nurse	Uncertain on level of knowledge, aware of training but focused for HCA. Aware of new levels. Knowledge of different textures. Aware of swallowing problems through other tasks such as giving medication. Training as part of nursing qualifications Acknowledging need for specialist input. Aware of problem, different signs & symptoms.	Clinical judgement, uses skills and experience varying skill level "Attentiveness, observation - key skills.	Available for care staff - acts as point of contact Professional boundaries Does not want to attend new training, has little faith in the competence in other staffs ability and competence. Believes in own abilities but	Self-reliant, reliant on carers to pass on information/ Competent Reflects on previous experience. Demonstrates confidence in own abilities and knowledge. Beliefs in capability based on knowledge and experience base as well as training and education.	Aware of consequences/ risks. Recognition effects of dementia and role of taste and texture has on appetite. Specialist input would improve care. Delays with SLTs - need to act in meantime/ nurses need to take decisive action while waiting on response from SLT to ensure good patient care. Issues with SLTs - delays between	Aware of individual resident's care needs Supervisory role - must ensure residents needs are met and best practise standards are upheld. Motivation comes from wanting to help and care for residents.	Uses clinical judgement, decision making - referral to specialist. Ongoing monitoring Refer to MDT/ SLT for specialist support Memory Does not feature in interview. Role requires attention and close observation of residents to notice any deterioration/changes. Attention is even more important in cases where residents lack mental capacity.	Time issues - delays in referrals being seen, Limitation of environment - lack of immediate specialist advice (?LP would help this) Has to be resourceful - trial & error approach. Education of family needed. Financial barriers. Has to be resourceful. Again, time issues are cause for concern	Family involvement/ interference – tension doesn't feel supported. Believes a DLP would have to "prove" themselves - suggests hierarchy/ pecking order Senior staff/ nurses provide HCA with support (advice and instructions) but also support	Empathy, Tension Emotion - negative, displayed irritation. Need self-motivation and will power to deal with negative emotions and ensure best care practise. Sharing stories of residents - shows care for those residents and the problems those residents face.

	Knowledge of dysphagia and linked medical issues. Also has incorrect knowledge. Knowledge stems from training and education/nursing school.		motivations are unclear.	Is unsure about other staff (including senior staff/nurses) abilities. Demonstrates theme of confidence in own capability but lacks confidence for other staff members. Beliefs about capability linked with feelings of self-efficacy and autonomy - critical to good decision making. Acknowledges limits in own knowledge and capabilities - emphasizes importance of specialists with specialist knowledge. However, also demonstrates doubts in SLTs capabilities, does not feel a visual assessment is enough in diagnosing a resident with dysphagia/figuring out the exact problem.	referral and assessment, sometimes give recommendation over the phone without seeing resident, use a visual assessment with no physical assessment - therefore emphasizes importance of nurse's knowledge and experience to ensure good patient care/reduce adverse events. However, nurses lack specialist knowledge - provides rationale for LP role.		Decision processes based on knowledge, experience, policies, paying close attention to resident needs - policies dictate what can be done if staff notices a resident having swallowing difficulties while waiting on the SLT. Delays with SLT force staff to make decisions without having specialist knowledge. Too much of a risk to wait for SLT to respond - requires prompt action. DP by senior staff reliant on observational reports from HCA - who are in constant direct contact with the residents. DP are impacted by whether the resident has mental capacity or not - determines action and level of supervision they are given. DP when to escalate an issue - experience and knowledge to differentiate when a cough means there is a problem.	?dissatisfied with lack of support Questions level of assessment offered - missing diagnosis Due to staff shortages, senior staff/nurses sometimes have to help HCAs with feedings. Financial constraints - will not be able to pay a specialist full time - would not be able to justify the expense - also as only a percentage of resident have dysphagia/swallowing problems.	with feeding when there are staff shortages/time constraints.	Frustration produced by family being disruptive and not following the nurses advice - thereby putting the residents health in jeopardy.

5 (KJ) SHCA	Knowledge of dysphagia from feeding experience, knowledge of patient safety, risks and negative consequences . Continuous learning is important ?undertaken. Knowledge into action Knowledge regarding dysphagia and consequences of it - developed through experience and training.	General skills, observation. Problem solving. Patient slow & steady. Communication "Patience, personalised care, attentiveness, observation, slow and steady pace, being aware of patient's needs. Team work, communication, interpersonal skills - supporting others, caring for residents.	Often uses "we" instead of "I" suggest feels part of a team/ doesn't really discuss self & own role - distant Carers first point of contact Takes pride in role and doing job well. Promotes best practise, as well as team work in fulfilment of role.	Uses SWOT analysis for personal development, review and self-improvement. - regulate behaviours Values staff and highlights need for training. Reliance on qualified staff. High level of experience also has personal experience of caring. Beliefs about capability and staff having confidence in their abilities is linked to adequate training and a supportive environment - supporting the weaker/less proficient staff members).	Knowledge of adverse outcomes related to dysphagia - aspiration. Due to being frustrated and short-staffed mistakes can happen Feeling of not doing job 'properly' "Has experienced adverse events linked to dysphagia - gives more meaning to providing residents with good care and following safe swallowing recommendations. To reduce risk - ensure staff have adequate training, to increase number of staff - therefore adequate attention can be given to each resident.	Uses SWOT analysis for goal setting and self-reflection Goal is to be successful in job and be a good worker - motivation for developing themself.	Need to pay attention when feeding and provide individual care. Find solutions Uses individual care assessment. "Access to information (care plans, verbal handover) and learning promotes memory. Practical experience from aversive events - emotional learning - promotes memory. " "Focused attention and observation is key to individualised patient care - being aware immediately of any changes/deterioration in resident's condition. Allows for immediate action to be taken. " "Observation alerts a carer to an issue, being attentive to a residents needs during feeding allows for good decision making. Knowledge and staying up to date with current knowledge/research promote good decision making - staff can make quick decisions without having to consult anyone else. Communication between staff promotes good	Accessible training - should do reading unsure if they do. Team work important and helping others key. Have allocated time to share information verbally- all staff can hear at the same time. Workload is high and time constraints acta as a barrier. Short staffed - increased workload/ try to share workload. Verbal handovers. ~Lack of staff mentioned multiple times. HCA has received various training, induction and ongoing, also have access to e-learning and additional reading. Important to have a supportive environment - that offers training to staff, builds their confidence, and support those lagging behind by giving them support, instruction and advice.	Emphasis on teamwork staff supporting each other Team work and communication key in promoting best care practises. Staff should support each other and help each other - when a HCA is lagging behind or struggling with time constraints and workload. Nurse in charge provides support and advice. Hold daily meetings where any concerns are addressed, and important information is communicated.	Stressed, tired and frustrated due to short staff. Feels under pressure Feelings of frustration, tiredness, being overwhelmed can lead to carers making mistakes and loosing concentration - negatively impacts patient care. Lack of time and too many residents can cause irritation and anger to occur between carers.

							decision making - sharing information on new knowledge and also regarding residents. Staff use SWOT (strengths, weaknesses, opportunity, threat) analysis in making decisions.	Support from seniors and team meetings also key to promoting a good working environment. Time constraints, lack of staff, need more training - all issues related to environmental context.		
6 (RM) Head Nurse	Knowledge of dysphagia, aware of consequences and referral process. Knowledge of conditions that increase likelihood of dementia. Clinical knowledge. Has general knowledge of dysphagia and consequences and swallowing strategies. "Does not remember if staff received specialised dysphagia training previously.	Positioning, Observation +++, pacing, clinical skills "Training promotes skill development. Observation, patience, slow pace, encouragement. Safe swallowing strategies are key skills needed. "	Carers are the first point of contact RM examines if there is an issue. - Hierarchy of care? Focus on care staff - not reflecting on their role in dysphagia care. Personalised care - each resident is different and so care needs to be varied and specialised.	Believes there is good communication between care staff and SLT. Trusts in carers abilities to support residents Needs confirmation on chosen course of action by SLT - calls into question confidence in capability of head nurse. [Confirmation also lessens self-responsibility]. However, feels more confident in own capabilities through external support from specialist with specialist knowledge. [rationale for LP role].	Knows consequences of inadequate fluid/ food intake "Has understanding of the risks associated with dysphagia - gives understanding to condition and promotes staff following safe swallowing recommendations. Understanding of consequences linked to having decisions backed up by SLT - she wants to be covered if anything goes wrong. [this raises issue of belief about consequences for patients versus for staff themselves i.e., disciplinary - separate sources of motivation but both have the same outcome = good patient care].	Not discussed Patient well-being is the motivator to do role. Must motivate junior staff and provide them with a supportive environment.	Reliance on carers for recognising changes in resident/ alerting senior staff. " "HCAs are more in regular contact with residents - therefore more likely to notice any issue. HCAs are first port of call - notice issue - tell nurse- nurse responds with appropriate action. Attention is crucial particularly with high-risk residents and those lacking mental capacity. [Attention and attention control is most important amongst HCA. Therefore they need to be adequately supported and motivated in order to ensure resident well-being - closely linked.] " "Aversive events prompt staff to make decisions.	No record of undertaking specific dysphagia training. Training gets displaced by other activities. Delays in referrals being made and resident being seen - even if marked urgent. Put emphasis on the importance of training to develop skills ?time limited - feels doesn't have time to train staff. Promotion of best care practises involve: Organisation providing training to staff - senior staff supporting HCAs by sending them to the trainings. However, the do need more training -	Not discussed Team work is key, care home is a system, and each level of staff plays a key role in providing holistic care for residents.	Not present - seemed keen to end interview ?defensive/ bored/ stressed Displayed feelings of apathy - apathy and poor job satisfaction can stem from being over worked, lack of organisational support, too many residents to oversee, time constraints. Apathy leads to poor care standards and therefore aversive events occurring more regularly.

					Training, individual attention vital to reducing risk. Beliefs about consequences linked to intrinsic motivation - promotes best practise as concern is for patient well-being.		HCA play important role - they interact with the residents - inform nurses of any changes/deterioration in residents condition - nurse then steps in to make informed decision on residents care. Delays with SLT - require nurses to make decisions on resident care while waiting - want confirmation of decisions from SLT (source of specialist knowledge) to cover their decision-making.	both the HCAs and the nurses. Promotion of personalised care Easy access to specialists i.e., SLT.		

7 (HS) KM	Culinary specific knowledge. Food knowledge +++ Little knowledge of dysphagia - but related to role as kitchen manager. Meal prep procedure to meet resident's needs. No training or prior knowledge Specialist knowledge in preparing food - knows about dysphagia and consequences.	Cooking skills, specialist skills in making soft food.	Lack of recognition of role from others. Enjoys learning Takes pride in food and presentation of food - impacted by best care practises and resident well-being.	Pride in role, self-motivated Introduced/changed how food is presented, changes the menu as needed, believes in standard of food - demonstrates confidence and belief in capability Has not received any training from organisation and does not feel supported - however, belief in capabilities stems from belief in own knowledge.	Making residents happy - food/ fluid presentation enhances experiences. ensures best practise. Understanding the consequences associated with dysphagia in addition to concern for patient well-being/being an advocate for patients maintains staff upholding best care practises.	Willing to make changes/ improvements. Goal is to learn and develop. Motivated by resident well-being - "put self in the residents shoes".	Follow instructions on different diets for different residents "Memory for specialist knowledge - practical experience and skill promotes memory. " "Attention must be paid to changing dietary requirements - the correct texture of food must be given to each resident. Attention must be paid to the food preparation - soft food is very different to normal food and puree food - requires special cooking techniques. " "decision processes reliant on information from staff, SLT, and dietician. Decision processes based on feedback from residents. Has not received training since starting - relies on own knowledge to make decisions.	Restricted - Has a limited budget for food. Layout of the dining room impacts dining experience. Highlights importance of presentation. Does not feel supported. Has not received any training and does not feel that other staff understands and respects his role. Financial constraints - small budget. Environment is depressing - dining rooms need revamping.	Seeks feedback Relies on feedback from residents in decision processes.	Emotional drive. Displays empathy for residents. Refers to pleasure in dining experience. Pride in providing quality. Does not feel supported or that role is taken seriously - due to their ignorance.

8 (A) RN	Demonstrates basic knowledge of dysphagia including consequences. Care staff are provided with basic knowledge in regard to feeding through their care certificate. Staff are provided with ongoing training Knowledge of dysphagia and its consequences. Knowledge of staff and how to support staff.	Emphasis on training available to develop skills. Training and experience key in developing HCA skillset. Skills in identifying early signs of swallowing difficulties - important in prevention. Supportive role - identify areas where HCA lack competence, provide training in those areas.	Supervisory role in the care home. Staff's professional roles don't overlap. Nurses, HCA & Suite Managers have own responsibilities. Now A has a new position she is no longer involved with previous aspects of role. Supervisory role - provides a supportive environment conducive to ensuring best practise among HCA - the training, knowledge and feedback required to ensure staff are competent carers.	Believes staff are competent and qualified as have met training needs by completing the care certificate - defensive of staffs abilities. Believes in capability of staff - HCAs and suite managers (suite managers - are knowledgeable and have personal knowledge of residents/ nurses have experience and do not need to wait for GP to make decisions). This is linked to the belief that HCA receive adequate training (induction, ongoing, refresher) and also a supportive environment where their issues can be addressed and are given adequate advice/instructions. They also have the required resources i.e. thickener and are able to follow instructions. If any staff have been identified as lacking competence or confidence - they	Aware of the consequences of dysphagia Has an understanding of the consequences of dysphagia in terms of well-being and mortality/morbidity. Due to the consequences linked to dysphagia - emphasizes the need to have well-trained, knowledgeable, skilled, confident, capable HCAs. SLT recommendations are essential to ensure reduction of risk/adverse events from occurring - makes up for lack of specialist knowledge of staff - they have instructions to follow. Importance of detecting swallowing problems promptly - can put preventative measures in place to reduce chance of an aversive event occurring. Importance of a prompt response - SLT delays - emphasizes nurses taking action prior to receiving specialist knowledge from SLTs.	Resident well-being and ensuring best practice Goal is patient well-being and best care practises.	Record keeping is important. Need to be able to prioritise info during handovers (mostly verbal) "Does not feature in interview. " "Seniors and care plans are important support when HCAs do not pay adequate attention during handover - must go back and check notes/speak to nurse to ensure they are following the right advice. Seniors need to pay attention to HCAs to ensure they are giving residents the correct care. "Training (induction and refresher) impacts good decision making - carers have the knowledge and experience to make good decisions. DP based on recommendations from SLT (specialist knowledge) and information from care plan and verbal information from handover. Emphasizes role of communication between staff and good record keeping/documentation in good decision making. Senior staff play an important role in DP - give instructions, advice and support to carers.	Staff seem to be regularly observed/ appraised to ensure standards of care are met. Hierarchy in care home. Referrals to GP take time. Organisation provides carers with training. Supervisors support carers - if they are struggling - must identify training needs. HCA have a care certificate book and feedback from senior staff - organisational support. HCA should report any issues to senior staff - requirement. Access to advice and instructions from senior staff. Access to specialist knowledge from SLT and GPs. However, there are delays in access to specialists.	Provides support to junior carers. Supervisory role - importance source of support for HCAs - morale support, training support, source of knowledge, advice and instruction.	Defensive in tone. Deterioration in residents' health can be difficult for family to understand. Supervisory role - believes in importance of creating a supportive environment requires senior to balance own emotions - cannot let emotions impact standard of care or ability to supervise.

				are given adequate support to address the issue - "then we sit together again and then um try to find where the missing where the... to sort it out" Have protocol to support staff and ensure they are capable and competent - a care certificate book, mandatory training, probation period, and feedback from senior staff.	This action is reliant on HCAs being attentive to changes/deterioration - promptly informing nurses/senior staff - senior staff taking action while waiting for referral to SLT. Handover - passing information between staff - is critical in reducing negative consequences. Supervision from senior staff - supporting HCAs, having check in sessions, keeping up to date with any issues on the floor - all key procedures utilised in reducing likelihood of consequences. [observation is that most of this handover occurs verbally].		Belief about consequences prompts quick decision making - despite delays from SLT, senior staff must make decisions while waiting for SLTs response. Lack of information or poor insight leads to poor decision making.			

9 (D) RN	In-depth knowledge of dysphagia and its consequences, as well as safe swallowing strategies. Knowledge of residents - ensures personal care. knowledge of staff members.	Skills in preparing thickened fluids - HCAs provided with specialist training. Skills in detecting issues - HCAs in contact with residents - therefore need skills to detect issues and report issues to senior staff.	Training and support promotes best practise standards. Having adequate knowledge of role and understanding of consequences among staff ensures good care practises.	Believes in capability of HCAs - have adequate training. (Acknowledges the need for more training though). Lack of confidence/damage to HCA confidence comes from causing residents discomfort or distress - even if unintentional. Emphasizes the necessity of support from seniors in helping to rationalize distress - that it was unavoidable and not intentional harm due to poor care practises. In terms of making HCAs champions - they lack the authority for other staff to listen to them - irrespective of capability and confidence.	Delays with SLT - increases likelihood of aversive events occurring - best care practise revolves around prompt responses - need authorization to give thickeners/prescribe - means carers are placed in a tricky situation as cannot properly help resident/resident is left in discomfort for a few days. This places importance in following safe swallowing procedures (i.e. posture, slow feedings, stop feedings if problem persists, alertness) while waiting on SLT to avoid adverse events from occurring/minimising risk. Experiencing Adversive events - regardless of level of care/events out of the carers control - impacts carers confidence and produces negative emotions i.e. anxiety and guilt. Lack of accessible information - missing SLT/lack of	Time constraints, workload, financial constraints, and staff shortages impacts goal attainment.	"Resources in environment makes up for memory i.e. coloured trays - red means high risk therefore carers do not have to think or remember which resident is high risk, also presence of thickener in room reduces need for memory. " "Attention must be given to thickening drinks and food preparation texture - to ensure they are the correct consistency. HCAs are dealing directly with residents - they need to pay careful attention to changes/deterioration to report any issues to senior staff. Time constraints interfere with the level of attention staff can provide. " "HCAs interact with residents on a regular basis - nurses/senior staff relay on observation reports from HCA to make decisions on patient care and whether to escalate issue further to SLT. Family involvement in decision making - when waiting for a prescription can rely on consent from family. Family can also interfere with good decision making - they lack specialist	Delays in access to SLTs. Lost direct access to SLT and cannot access NHS database to review personal records of residents. Time constraints - makes it hard for HCAs to read care plans - highlights importance of verbal handovers. Large workload and time constraints - impacts level of care. Financial constraints, thinly stretched resources - makes potential LP role unlikely. Residents are becoming more isolated (further impacted by COVID) - previously trying to get residents to come to communal dining area, create a more social atmosphere in home. Impacts residents' well-being and leads them to needing more active assistance - worsens workload and time constraints.	Verbal handover, senior staff/nurses encourage HCAs.	Adverse events increase anxiety levels and feelings of guilt in carers - impacts their confidence and feelings of capability - need confidence to make decisive on the spot decisions that promote best care. Adversive events unavoidable in the care home context - regardless of level of care given - carers must learn how to balance/manage negative emotions and rationalise negative events as to not allow emotions to impact the standard of care they give. Acknowledges frustration families must feel in coming to terms with relatives worsening condition and dealing with fact that the carer may not be able to go further or give more time to the resident's care.

					instructions - impacts staff ability to give proper care and can increase the likelihood of adversive events occurring. Communication between staff - sharing information regarding resident - readings care plans - all reduce risk. Impact of COVID - distinguishing between types of coughing - aspiration versus COVID cough - impacts chosen intervention. Residents spending more time in bed and in isolation - caused them to need more active assistance than just prompting. [In terms of actual observations - HCA although always having knowledge of safe swallowing recommendations and the consequences of dysphagia - did not always follow advice - would leave residents unsupervised or would rush through feedings]		knowledge but can feel that they know best due to their knowledge/close proximity with family member. Negative emotions - anxiety or stress can prompt poor decision making/mistakes to occur. Missing SLTs, lack of information (particularly with residents coming from hospitals), poor communication between staff - impacts carers ability to make good decisions. Decision making should be based on best interests of patients. Personalised care is critical to good decision making - despite following safe swallowing recommendations - ""personal judgement and knowledge of the resident"" ensures good decision making. "			

10 (SW) CHM	Lack of in-depth knowledge - knowledge basic/ superficial at healthcare level. Transfer knowledge verbally. Need knowledge of residents to provide personalised care. Ensure care plan is up to date. Lack of knowledge from family. Need clear guidance - switching thickening system has worked much better Has a general knowledge of dysphagia and issues linked to dysphagia. Training and experience promote knowledge development. Knowledge of each resident ensures personalised care - however, staff rotas and use of agency staff (no longer use agency staff) impact staff interaction with the same resident.	Basic, work with nurse & suite manager to improve skills. Provision of personalised care is a developed skill.	DLP would be specialist. Professional boundaries Wouldn't want HCA avoiding residents that come under specialist care - professional boundaries important. Personalised care - knowledge of residents.	Recognises the need for specialist input. Acceptance of shortfall in training. Written communication is ineffective among HCAs. Negative view. Often sees staff not paying attention to resident - lack of caring, task orientation "Supervisors know capability is linked with experience (especially as there is a lack of ongoing training so practical experience is critical for developing knowledge and skills). Empowerment and confidence in capability is interlinked with knowledge and experience. Best care practise is dependent on personalised care - this is linked to repeated exposure/interaction with a particular resident - increased	Rotation of staff detrimental to good care. Role of experience and continuity of care in providing support and increased safety. HR & disciplinary action . Model of dysphagia care - believes it could be different. Refers to frailty nurse model- anticipated outcomes e.g. patient flow, less referrals. Families unaware of consequences "Poor care results in disciplinary protocols - added measure to ensure good care practises. In avoidance of consequences - having a specialist on the floor to observe and educate other staff - provides rational for LP role. Ensuring care plan is up to date and action plan is correct to deal with residents problems to prevent negative consequences.	Patient safety is main intention. Person centred care. Maintain resident independence - give tools to do so. Motivations - Financial viability- cost saving exercise rather than improving patient care/ safety Intrinsic motivation versus financial and practical considerations - often conflict with each other. Financial motivation most often outweighs intrinsic motivation.	Need to provide personalised/ individualised care. Remember each residents needs (Memory) Over use of information on walls reduced utility - staff don't read stuff on walls. Specialist equipment to aid eating/drinking. Visual prompts "Strategies to provide staff with technology to make up for memory lapses - staff do not use technology or read care plans. Verbal handover/meetings encourage absorption of knowledge. " "focused attention to individual residents and their needs critical to ensuring best practise and a high standard of care. Phones are a major distraction to staff giving undivided attention to residents. " "Communicating resident needs between HCA - HCA do not read care plans - important source of knowledge in decision making - how does the care home promote	Accepting risks with limited training/ assessment of care skills. Lack of training on holistic assessment/ personalised care. Continuity of care is important but difficult due to rotas. Use of messaging service to transfer information. Unintended consequences due to environment & time constraints. Computer messaging alerts. Care and treatment plans kept in electronic records. Local policy not to paste things to walls. Environment effects resident. Loss of equipment is an issue. Some practices are institutionalised - balance between clinical versus home. Barriers - logistics. Staff resource has eliminated agency	Influence others in terms of care/knowledge. Nurses to HCAs, HCA to HCA. Verbal communication. Lack of continuity of care. Practice influenced by residents family/carers - DLP could help with this Handover sessions and team meetings - supportive environment where questions are answered and information is shared between staff. Promote a supportive environment where staff feel comfortable to approach senior staff for advice and instruction.	Does not feature in interview. Need to be passionate/interested in role to keep motivated. Supervisors must balance between being emotionally invested in ensuring best standard of patient care and being unemotional (favouring financial and practical concerns) in order to manage a care home efficiently and effectively.

	Various sources of knowledge - care plans (HCAs do not check them), verbal handover, specialists, and specialist recommendations.			interaction develops increased capability for dealing with that specific resident. Therefore: supervisors and organisations must provide an environment that promotes knowledge and skill development - which impacts staff confidence and capability. Talk of supervisors from interviews suggests a lack of confidence in HCAs capabilities - although capability is interlinked with self-motivation to self-develop, also influenced by feeling supported and provided with adequate opportunities and training. Therefore, supervisors must acknowledge the role they play in staff members beliefs about their own capabilities - apathy on the part of supervisors is unhelpful. Links back to the fact			communication between HCA in light of this? Organisational structures make decisions based on best care practise but also financial and resource constraints - often these two interests are conflicting and financial interests are often given preference over best care practises - importance of regulatory bodies such as the CQC in reviewing care home procedure. Financial and resource constraints also impact HCA the most - understaffed, too many residents, lack of ongoing training.	staff use - ?continuity improvements in care. Motivated by finance Handheld device - unclear if barrier or facilitator? Financial constraints Balancing resources/ Led from the top/NHS. Existing link model - frailty nurse organisational structure "Provides HCA with induction training - a certificate of care. But lack of ongoing training. Training also does not account for personalised care - that comes from ongoing interaction with a resident (which depends on rota patterns and permanent staff versus agency staff - both under control of the organisation - but often does not happen) and experience, which the organisation cannot guarantee - therefore level of risk is inherent.		

				that the care home is a system with many inter related parts.				Organisation can ensure ongoing catch up sessions during shifts, adequate support, feedback, evaluation, and discipline for HCAs to promote best practise. Also information that is easily accessible (eating and drinking care plan, SLT recommendations, treatment plans - all electronic on accessible computers on each floor, not in room due to GDPR restrictions and also to prevent the rooms looking like a ""clinical tip"" - although HCA do not check them - and verbal information from other staff members and senior staff) Access to specialist knowledge is key to good patient care - ease of access to a person on each floor with specialist knowledge (rationale for LP role). Access to specialised resources and utensils - have access to utensils (specialist		

								cups, forks, plates, etc) however they disappear or end up on the wrong floor after being washed, which makes them inconsistently used even if its use is specified in the care plan. Time constraints, more residents needing assistance - both environmental factors that impact care practises. Considered different resources to promote care i.e. handheld devices - carers will not use those. mobile phoes are banded (so no technology based on a phone app) - as these distract carers from providing attentive care. potential LP role - not affordable by care home, struggling financially as is. Financial constraints impact access to specialists with specialist knowledge, resources (eating and drinking utensils), food recommended by dieticians, etc.		

11 (DS) OT	Good knowledge of dysphagia including risks HCA lack knowledge. Demonstrates specialist knowledge. Knowledge of equipment Written records as a source of info. Follows protocols - conducts risk assessment for clear knowledge re residents needs. Hyper awareness Has knowledge of dysphagia and medical problems related to dysphagia. Knowledge of safe swallowing procedures. Provides staff with training - link training with sort of residents in home, not just theory but gives staff something to relate to/makes training more realistic - more likely to take on board knowledge from training. Depends on environment -	Valued skillset, problem solving, Confident +++ multi-trained. DLP would need higher skill level. Need skills to be carer - can't rely on culture. Manage workload. Kitchen staff have skills Skills are developed through training and experience - must give HCAs the opportunity to self-develop and develop their skillset. Time management, seating and posture training, teaching skills, communication skills. Being overly task orientated means rushed care, negatively impacts attentive concentrated care.	Holds staff accountable. Wants to help residents and staff. People get used to her. Teaching element - runs training. Not currently involved with SLT but has been previously. Part time. Everyone plays their role like cogs in a wheel - team effort. Some HCA think they come from a caring culture - part of their identity or a calling. OT assistants are non-clinical Some staff really want to learn while for others it is just a job and source of finance - impacts role	Lack of knowledge in HCA. HCA ability varies person to person. (not bright, just a job, people who care, some really want to learn) DS is confident in her own abilities. Gives praise when staff do well. Earnt respect. Gives staff opportunities. Some undervalue her skillset - misconceptions about role/ ability. Issues with staff retention non committed staff leave very good progress - only retain mid-level staff? Suggests shift workers and nurses only see cases not residents. Activities co-ordinators all know what to do. Trusts staff - gives them responsibility.	Considers poor practice abuse of vulnerable adult - especially if something they have had training on. Will call out bad practice regardless of rank. Responsibility for residents wellbeing - death is potential consequence. Risk assessments are crucial they are signed off meaning staff can be held accountable. Not personal its work, poor practice results in disciplinary - clear rules no bending/ flexibility Knowledge of issue (dysphagia and the linked medical conditions) is important in understanding consequences/safe swallowing strategies. Training (safe swallowing strategies i.e. posture) essential in reducing risk. Incorrect care is paramount to abuse.	Caring should be the priority. Speed/ being too task orientated is negative. Financial incentive would be needed for DLP. Protect and advocate for residents. Ensure safe practice. "Some staff ""it's just a job"" and others who really want to learn. Intentions (goal setting and intrinsic motivation) plays role in best care practises. Goal of being overly task orientated - emphasize quickness rather than attentive care. Nurses promote a	Should be thinking ahead. Uses initiative Attention/ Observation lacking in some. Always checks residents' notes. Some staff seek reassurance in decision making. Sources of information -- care plans, documentation - must be easily accessed - make up for poor memory. Being overly task orientated diverts attention away from residents. This impacts on best practise care - fine line between being efficient and paying adequate attention to each resident. Being attentive includes paying attention to resident but also additional sources of information, such as care plans/notes on resident. Negative emotions - anxiety and stress- impact staff decision making processes and abilities - impacts best care practises.	Time restrains are an issue Practical issues in the care sector . Access to special mugs lack of equipment causes stress high environmental stress. Each floor runs differently - not one size fits all Hierarchy in the care home, cultural barriers. "Champion" role has previously been unsuccessful. Nurse handover can be dramatic. Issues with staff retention non committed staff leave very good progress - only retain mid level staff?. Tables in dining room not fit for purpose - barrier. Dislikes the medical model & clinical environment within care homes would prefer more person centred approach. Has protected mealtimes to facilitate feeding.	Good working relationship with SW. Feels supported and trusted. Had issues with cultural barriers and hierarchy in the home - Caste system present - be overruled/ not respected. Clashes with nurses about medical model. COVID- 19 means no social cues when feeding as resident cannot eat in the dining room. Departments come together. "Hold junior staff accountable - influence their care practises and correct poor care practises. Senior staff/suite managers set the culture. Hierarchical	Shows passion for care. Anger Residents perception of how they are treated "lump of meat" - resident is a person not a task/ obstacle. Resident death would be on her conscience feels responsibility. Gets depressed and angry about medical model. Fears around aging and illness. COVID-19 has resulted in higher levels of staff anxiety and stress which impacts staff and leaves them weary. "Anxiety and stress - lead to mistakes and poor decision making - impacts on care given to residents. A supervisory role can evoke a lot of frustration - need to be emotionally invested to do job - when see incorrect practise/carers poorly performing and causing harm to residents - can evoke various negative

	environment which promotes learning and self-directed behaviour versus environment where staff are frightened of having an opinion. Importance of record keeping and well documented notes - important source of knowledge.		and standard of care.	Training provided if they aren't confident. Supervisors beliefs in their own capability. Important due to hierarchical structures - need to be confident in own abilities and knowledge when other staff challenge them. Important for leadership. Issue of support in developing the capability of junior staff. "I say if you're not confident get training". States that if staff are not confident then they need training/must go get training - but where do they get that training. Is this the correct approach to ensuring best care? Learning from mistakes in this context can be problematic. Rests on belief that if you give staff	This emphasizes the importance of HCA having the correct training, knowledge and experience. Having the correct equipment (i.e. drinking utensils) reduces risk. Highlights environmental resources, in addition to training, as a means to reduce risk and promote best practise. Environmental context (i.e. lack of staff, time constraints) also impact on reduction of risk/likelihood of adverse events occurring - if staff are too rushed, they are more likely to make mistakes/provide poor care. Importance of holding each other accountable in reducing risk/adverse events and promoting good care. Both between HCAs and from senior staff to HCAs. Importance of easily accessed specialist advice (i.e. SLT	medical model which negates a person centred individual model. Best care practises - staff must advocate patients rights/ advocate for patients. "		Equipment goes missing, staff shortages - more HCA needed. Culture - believes we devalue the elderly. Feeding is time consuming adds to time constraints. Supported by kitchen "Access to specialist resources/equipment (i.e. Tilt and Space chairs help with posture - resident must be placed correctly in chair, requires training on use - cannot be on fill Tilt as resident will slump down and close their chest - but if positioned right in chair - promotes safe eating and drinking). Issues with current equipment (spoons to prevent overfilling mouth, plate guards)- often disappear/get taken by staff, round tables in dining room are harder to use than straight edged tables - for residents to support their arms. Financial constraints - cut down on staff and specialist resources/equipment	structures - impacts carers taking advice from other staff.	emotions - need to keep these in check to be a fair and supportive leader, but also to keep motivated and desist feelings of apathy.

				responsibility they will more likely learn and develop on their own and have experience in relying on their own capabilities - therefore creating more competent and confident staff? Acknowledges some staff are more competent than others. Relates back to supervisors' apathy in terms of allowing this or being proactive in creating a supportive environment - environmental factors limit their ability to support all staff adequately - links back to the fact that HCAs must self-regulate.	recommendations) in decision making - limits risk.			(i.e. special utensils and cups). Floors have had to close due to lower numbers of residents (related to COVID). Time constraints - ensuring a slow feed and double swallowing takes too long. Hierarchical structures - staff do not listen to instructions from junior staff - senior staff must be champions to effect change, also class issues (caste system).		

Overall	**HCA's** demonstrates a basic knowledge of dysphagia but lacks depth of knowledge. Knowledge appears to be around feeding, thickeners , basic patient safety, risks and negative consequences. Knowledge level varies amongst **nursing staff** from basic to more in-depth knowledge of dysphagia including safe swallowing strategies and consequences. Refers to care plans as a source of knowledge . Uses multiple sources of knowledge when caring for residents - handover, care plan, training and specialist input. **Management** raises concerns about HCA's level of knowledge, believes their knowledge is basic/ superficial. Knowledge is often transferred verbally around the home. Knowledge is needed to provide personalised care. Sources of knowledge include care plans, verbal	**HCA** skills are limited to feeding practices e.g. slow feeding, swallowing safety and observation and learnt from training. Interpersonal skills such as team work and communication also mentioned. **Nursing staff** employ a higher level of skill compared to HCA, using clinical skills and judgement to provide care to residents. Shows decision making and problem-solving skills HCAs are not required to do. Again, management feels staff's level of skill is basic, works with the nurses and suit managers to improve skills**.** **Kitchen manager** has a high level of culinary skills but feels his skills are not valued by others. **OT** has a valued skillset in the home is very	**HCA's** role is to follow the instructions of more senior staff and protocols. Lack of ownership of role operates as part of a team/ group identity to provide best care. According to **nurses** response Staff's professional roles don't overlap, Nurses, HCA and Suite managers all have their own responsibilities. Care staff are the first point of contact if there is an issue then a more senior nurse will examine the resident suggesting a hierarchy of contact. Nurses are available to care staff when needed. The locum nurse acknowledges they have a professional	Beliefs about capability and staff having confidence in their abilities is linked to adequate training and a supportive environment. **HCAs** need to balance their own confidence and instructions/ support from senior staff. Reliance solely on seniors suggests limited beliefs about capabilities. **Nursing staf**f believe care staff are competent and adequately trained having completed mandatory training. Nurses demonstrate confidence in their own abilities and knowledge. **Managemen**t recognises the need for specialist input beyond capabilities available in the home. Seems to lack confidence in the abilities of HCA's has witnessed lack of caring & task orientation. **Kitchen manager** has not been provided with any	**HCA s** have knowledge of adverse outcomes relating to poor care. Experience of adverse events linked to dysphagia is varied amongst HCA's and where present provides more meaning to providing residents with good care and following safe swallowing recommendations. **Nursing staff** recognise the severity of dysphagia and have knowledge of risks and consequences - locum nurse mentions fear of litigation. Nurses are aware that specialist input such as SLT involvement improves care as they et access to more specialist knowledge. well-trained, knowledgeable, skilled, confident, capable staff is important in negating adverse consequences in care. COVID impacts care - residents isolating in their rooms, staff unable to differentiate COVID cough and aspirating - unknown consequence on patient's wellbeing.	All levels of care staff are motivated by resident well-being and poses some degree of intrinsic motivation to achieve this. one Junior's HCA's motivation appeared limited potentially due to lack of promotion and experience despite being employed for three years. Senior HCA discusses the use of SWOT analysis for goal setting and self-reflection in order to be successful in role and a good worker. Nurses display greater motivations and commitments in terms of ensuring best practice whilst acknowledging barriers to goal attainment. When	**Junior HCA's** don't need to rely on their own decision making and memory. They are directed on what actions to take by seniors. However, they do need to pay attention to residents needs especially during mealtimes as patience, attentiveness and observance increase patient care and safe swallowing. **Senior HCA** are required to use their experience and knowledge gained through handovers and care plans to make decisions and find solutions. According to **nurses** the use of memory is mostly implied such as due to a reliance on verbal handovers means staff need to remember information. Memory aides such as visual prompts or referring back to a resident care plan to combat memory lapses, however information cannot be pasted to walls. In terms of attention Nurses rely on observational reports from HCAs. Nurses use their clinical judgement to assist decision making but also welcome input from SLT or specialist advisors. Decision's need to be made in relation to when to escalate issues, decisions to refer and actions to take	High workload, time constraints, short staffed, Time issues - delays in ref, family expectations, financial barriers, training issues, COVID, Hierarchical structure. Access to specialist equipment, dining room needs revamping. Verbal handover procedures.	**HCA'**s are influenced by senior staff and organisational culture. Reliance on seniors for decisions follows instructions and direction without questioning. **Nurses r**eferred to social influences that impact residents such as family involvement and social aspect of eating in a dining room. In terms of social influence amongst senior nursing staff they provide support for HCA's and junior carers. The role of teamwork is also mentioned along with the suggestion of a hierarchy in the home with each level of staff playing a role in providing care for residents. **Manager** describes Influence amongst care	**HCA's** provided a limited emotional response. **Senior HCA** discussed feelings of stress, tiredness and frustration which can negatively impact patient care and cause irrigation & anger between carers. **Nurses** had differing levels of tone during the interview some sounding defensive in their responses. The caring role evokes many emotions from empathy, sensitivity to tension and anxiety. Adverse events increase anxiety and Fears of litigation were expressed. One nurse discussed managing residents' emotions in terms of the psychological impact of modified food diets not looking like food. Emotional responses need to be managed as can lead to nurses being overwhelmed and result in poorer standards of care. **Manager** did not demonstrate an emotional response preferring to adopt a

	handovers and specialist recommendations. Knowledge is relative to role as **kitchen manage**r, demonstrates specialist food knowledge but limited knowledge on dysphagia. **OT** demonstrates very good knowledge of dysphagia including risks and equipment. Provides training and conducts risk assessments. Emphasises the importance of record keeping and well documented notes as a source of knowledge.	confident and multitailed. Skills need to be developed through training and experience, also believes HCA level of skills varies dramatically across individuals.	responsibility to meet residents care needs but doesn't have resident knowledge so adopts a more supervisory role. Personal professional role is not discussed by the **manage**r he mentions professional boundaries in a potential DLP role - doesn't want HCA's avoiding caring for residents that come under specialist. ?support the idea roles/ responsibilities don't overlap. **Kitchen manager** takes pride in his food but feels a lack of recognition for his role. **OT** role has a teaching element, everyone plays their role like	training by the home beliefs about his capabilities come from self-belief and his own knowledge. **OT** is confident in her own abilities and has earnt respect of other staff members. She gives staff opportunities but acknowledges some staff are more competent than others. Relates back to supervisors' apathy in terms of allowing this or being proactive in creating a supportive environment. Training is provided for staff who don't feel confident in their capabilities.	According to **manager** Consequences of poor care include HR and disciplinary action . Aware that staffing issues can have negative consequences - rotas and lack of continuity of care is detrimental to good care. Frailty nurse model has showed positive outcomes e.g. patient flow and less referrals . **Kitchen manager** has lack of understanding surrounding the consequences of dysphagia. Result of his role is making resident happy and proper food/fluid presentation. **OT** considers poor practice abuse of a vulnerable adult- especially if it is an area staff have been trained on. Is clear on consequences and maintains professional view point. Conducts risk assessments to ensure safe practice and avoid adverse consequences. Holds staff accountable for their actions regardless of rank, actions have	discussing intentions again patient safety is the main intention. However, **management** weighs up conflicting intrinsic motivation versus financial and practical considerations. Financial motivation most often outweighs intrinsic motivation. **Kitchen manager** is self-motivated by role and resident wellbeing . **OT** believes caring should be the priority and carers need to be the patients advocate. She believes staff motivations vary from wanting to learn to "just a job" and that sadly staff are	if there are delays in access to specialist advice. From the **managers** perspective Memory regarding residents individuals needs enhances care. Verbal handovers require memory. Using information pasted to walls as memory prompt goes against data protection regulations, overuse of posters as memory prompts makes them reductive as staff don't notice them. Use of electronics is distracting to staff. Decisions are made with consideration to finances and influence of regulatory bodies e.g. CQC, NHS board. The **Kitchen manager** has good memory for specialist knowledge, pays attention to residents dietary/ texture requirements and provides food accordingly. Relies on his own knowledge and resident feedback when making decisions around food. **OT** always checks residents notes to refresh memory before visiting a resident. Care plans and documentation can be used to avoid memory lapses. Staff should use their initiative but often seek reassurance in their decision making depending		home staff Nurses to HCA's and HCA to HCA. Practice can also be influenced by residents' families. They host team meetings to promote answering questions and sharing information. Want junior staff to feel comfortable to approach senior staff. The **kitchen manager** says he relies on feedback of others to influence his decision processes and work behaviours. **OT** reflects on her good working relationship with SW. The social influence in the home amongst carers relating to cultural differences and hierarchical structures particularly the	more ruthless practical response. **Kitchen manager** appeared driven by his emotions, displaying empathy for residents and a desire to provide a quality dining experience. **OT** shows passion for care and discusses many negative emotions such as anger, fear, anxiety and guilt if something bad happens to a resident. Suggested frustrations from supervisory role - emotions need to be regulated in order to be a fair and supportive leader and motivate staff.

			cogs in a wheel when caring for a resident e.g. physio, OT & SLT. Discusses some HCA think they come from a caring culture - part of their identity or a calling. OT assistants are non-clinical.		consequences which can result in disciplinary actions.	often to task orientated with speed rather than attentive care being staff's intention.	on confidence levels. Attention and observation is important for the role however being overly task orientated can divert attention away from residents.		caste system being present and the impact of managers to set the culture of the home. She believes departments work together well but clashes with nurses due to the use of the medical model in the home. Briefly mentions the impact of COVID-19 meaning residents don't benefit from the social influence of shared dining	

Construct

	Knowledge	Skills	Social/ Professional Role & Identity	Beliefs about capabilities	Beliefs about consequences	Intentions	Goals	Memory, attention & decision processes	Environmental context & resources	Social Influences	Emotion
1	Studied in Australia, dysphagia module on her course and on the job training. Has witnessed a lack of knowledge in carers. Lack of knowledge ? Due to lack of experiential training cannot visualise consistencies. Care staff are expected to know what to do without proper training . Lack of knowledge amongst care staff such as not keeping up to date with new guidelines. Training days should include greater detail on dysphagia	Feeding someone with Dysphagia is complex - requires skills. Tries to offer on the job training to increase carers skills. Feeding skills lacking. Emphasis on use of visuals and on-the-spot training e.g., to show positioning	Assess and advise. Role is to be a source of knowledge for carers (professional or family) SLT Offers support. Gives feedback, answers questions to help staff learn. SLT should make self-known - gives more meaning to written down info	building her own knowledge. Carers level of ability varies, new staff need additional support/ training. Staff seem confident in their use of thickener - ?thickener not beneficial. Try and follow guidelines - unsuccessfully? Unsure if staff are following guidelines. Carers she has observed have shown confidence in feeding residents.	Managers more aware. Choking links to emotion. Being aware/ having experience of choking meant homes more likely to take on board her guidance. Residents want to have a choice over their food despite risks/ potentially harmful outcomes. Links to emotion.	Provides feedback on care staffs photographs of meals. Suggests that family carers have higher motivations for care. Seeing improvements is motivating. Personalised approach to resident	Prevention of choking - more training is needed to achieve this.	Memory - prompts of the wall. Visual aides. Provide a checklist of things to check after finishing feeding. Attention - during feeding show staff signs to look out for. Six box grid can help decision making and act as a memory prompt. Tells carer when they should seek help. Decision making - referrals to SLT are triaged and seen in priority order from 72 hours to 10 days. Simple solutions are sometimes complex.	Works in the community. Lack of continuity of care - all carers need to be on the same page. COVID has meant less referrals and more advice given virtually. Funding limitations. Management input. Timeframes for referrals vary from 72 hours to 10 days. Electronic and hard copies available. Uses a six-box grid to document information about a resident to carers in the most simple way. Issues with referrals - not all referrals go through the referral process, opportunistic approach. In care homes where care staff prepare meals more specialist support is needed. Time restraints any recording/ checklist etc needs to be quick to fill out.	Liaise with family who then pass on any information/changes to carers. Top down influence in care homes with managers at the top. Management get staff on board and then rely on staff to pass information throughout the team.	Anxiety surrounding choking instances. Hard for family carers/ members to see a loved one doing harm to themselves . Managers have more worries than care staff as consequences are more sever for them.

									Values feedback to encourage abilities. More training needed		
2	The Vocab & language used can be challenging. IDDSI recommendations have given clarity. Shared vocab is helpful but not if carers can't identify it on a plate. Knowledge of food consistencies Level 7 = regular diet. Positioning of resident is important. Drip feed knowledge wherever they can. Knowledge of resident is important. Staff aware of care plan and written instructions but	SLT -problem solving. Preparing food - level 5-6 require greater skills to prepare. Offers on the spot "show and teach" methods. Offers solutions to individual residents' issues. Communication crucial	SLT meets with lead carer/ nurse on duty, gathers background information on resident, carries out observations of carer offering food, looks at the kitchens and food available, offers suggestions and strategies with carer present. Provides feedback. Supportive.	Care staff's beliefs about residents capabilities/ level of need often inconsistent. Carer's level of understanding is important. Does a lot of work with the kitchen - food wasn't being modified correctly but this was outside carers level of skill/ role. Experience plays an important role in carers capabilities. Agency staff - don't have the time to read recommendations/ gain knowledge of resident's needs. goes in blind cannot offer	Safeguarding issues observed due to issues in kitchen. Prevent chest infections. Knowledge needed for family as they bring food in once understood their role family receptive. Holds risk feeding best interest meetings.	Try to meet as many carers as possible and show them. SLT recommendations need to be communicated clearly.	Not discussed.	Decision making: Referrals are triaged based on the level of detail provided, often the information is vague or incorrect. See how recommendations are being adhered to decide to monitor more closely if not. Attention: realised where aspects of care were breaking down. Memory - visual prompts would be beneficial to continuity issue with policy - not allowed information up in rooms. Prompts when serving food not possible	Continuity of care is important in care homes, so they have a familiar face. COVID-19 now means working remotely, reliance on technology not F2F visits. Care homes can take on many different formats. Referral process - 72 hours, 10 working days (2 weeks), 25 working days (5 weeks) ?is referral time frame to slow for condition severity. HCA don't make referrals. generic/ vague form used. Lack of continuity of care home staff's opinions/ beliefs about residents' levels of need. Awareness of the staffing issues in care homes, time is valuable and often restricted. Comments are documented on a recommendation sheet.	Hierarchy, managers need to support/ enforce changes. SLT tries to build a good rapport with the home. Peer support shared learning between carers. See someone who has worked in your role. Family involvement as a positive - level of involvement varies.	High workload in kitchen overwhelmed negative attitude. Pleasure of eating and drinking is important. Mealtimes are the most stressful time of day for carers. Not wanting to cause harm. Some carers worry they are seen as incompetent if observed feel judged/ threatened. Stress. SLT displays empathy towards care staff acknowledges that they have a difficult job.

	they need to be basic.			personalised care.					Follow ups can be difficult when lack of continuity of care staff - can't see how they are getting on. Preprepared meals used - clearer for staff but limits varied diet for resident & their overall eating/ dining experience. High workload in kitchen staff. Care home was part of a wider organisation they put on training and developed kitchen staff's skills. Time issues and staffing issues. Reliance on agency staff. Annual mandatory training. training by outside agency e-learning. Environmental barriers to doing what they should do. Vocab & language as a barrier. Order specialist items via NHS but care homes must replace if they go missing ?budget. COVID limiting family support.		

3	Lack of knowledge in care home staff - unaware choking v coughing . Seeks knowledge from care staff, GP & family. Lack of knowledge on what a soft diet is. Lack of knowledge about "emergency" sometimes normal progression of a condition. Lack of understanding re cause and effect of swallow problems e.g. chest infection causing not the effect of. lack of understanding. Agency staff lack knowledge Learn what resident needs.	Problem solving, team work. Learn on the job. Decision making. Demonstrates feeding techniques. Staff aren't trained to feed people - should aim to support their arm. Mouthcare +++ SLT only understand due to their enhanced training. Clinical judgement	Many aspects to role - SLT has a complex job spec. Part of MDT. Meet individual needs of resident/patient. Provide advice, carries out assessments. Intervening when they see poor practice. Duty of care, responsibility. Acknowledges it's difficult for care home staff SLT have a responsibility to re-educate care home staff based on new evidence Consultative role. Care homes have a responsibility.	Often a lack of understanding from those doing referrals. Often sees difficulties in the kitchen - struggles with the consistencies that come between puree and normal diet. SLT is not confident that advice is understood and followed by all care home staff. Three recommendations is the max that care home staff will follow. (independent unpublished research) HCA don't need to know the in-depth function of the swallow.- needs to know cups, fluid consistencies. Believes staff know there is a difference but not what that difference actually is. Cannot ignore a	Use of thickener is negative in the long run and shouldn't be encouraged. Good quality feeding can have a major impact. Impacts quality of life for the resident. Food served had low nutritional value. Rather would be aware of risky behaviours so could step in rather than residents engaging in risky foods sneakily. Safeguarding concerns	Best interest of resident. More holistic approach is needed. Motivated by seeing patient improvements	To reduce risks of aspiration & choking. Improve person's swallow, safety and food enjoyment Achieving goals - res improvement. Avoid adverse outcomes	Decision making - if a visit is needed. Experience helps decision making. Band 7s make up the triage team as they have the experience/ knowledge needed in order to make decisions. Decision to visit is based on phone call to home. Memory - visual cues would be helpful something in the room staff could look at (not on the walls) placemat could come with instructions. Attention - more than three recommendations is too much to follow uses headlines and keep concise Attention - staff can be oblivious/ unaware. forgetful	Continuity of staff is a barrier as is lack of shared knowledge around the home. Sometimes there are language barriers. Referral issues - phones home to try and get more information. Referral timeframe 72 hours, 10 days, 25 days. Strict and clear criteria Give advice whilst they wait for the visit, so the home does not need to improvise care. writes directly into resident notes & electronic record. Home she works with doesn't like putting signs on the walls. Written handover ineffective. Has experience of being a HCA she knows they are undertrained underpaid and extremely busy. COVID. Government drives/ focus influence what care aspects are prioritised. - Swallowing difficulties not on their radar. Trust has gone paperless due to infection control.	One person sees what she does knowledge needs to be passed throughout the home. Team effort. Chain effect kitchen and care staff. Team responsibility. Family input varies	Empathy is needed when thinking - think what it's like for that person. Dysphagia training - let carers experience being fed poorly - emotional understanding / connection to feeding process. Love and care. SLT has strong emotional drive - describes a homes practice as heart-breaking, depressing and disgusting. Demonstrates and emotional response to seeing residents achieve goals & improve describes as "beautiful"

	Uses family as a source of information			resident's capacity					Advice needs to be followed. hard to explain on paper why something should be done. Kitchen set up differs between homes. Homes have a responsibility, Food and nutrition isn't always a priority. Financial limitations. Agency staff are a barrier - lack of knowledge about home Restrictions on what the kitchen can produce, Time restraints homes should pay for a rolling programme with training on oral care, feeding, signs and symptoms of choking & aspiration. Information is available online - managers can set up their own induction. One home refused external training. Staff limits. Can see gaps in service and tries to fill them. Holistic approach - all links together. People aren't just a tick box.		

Overall	SLT's agree there is an overall lack of knowledge amongst care home staff most likely stemming from a lack of training on Dysphagia, particularly experiential. Main knowledge gaps are for diet consistencies , positioning, choking/coughing, mouthcare,	SLT use problem solving, decision making, team work. Feeding and food prep for someone with Dysphagia requires a higher skill set. Feeding techniques are often inadequate and care home staff require more training SLT often offers on-the-spot training to help increase feeding skills.	SLT often has a complex job spec with many aspects to role. They provide advice and offer assessments. Observing mealtimes and answering questions/ queries. They have a duty of care and a professional responsibility to help with education.	SLT describes Inconsistencies in care staff's abilities and care staff's beliefs about residents abilities. Lacks confidence that the advice is being followed/ understood by care home staff. Staff show confidence in their use of thickener however this is no longer encouraged due to new evidence. HCA don't need to know about the in-depth function of the swallow and the food modification side is outside of a carers skill/ role as this is the kitchens responsibility. Level of experience when thinking about carers capabilities	Managers are more aware of the risks and consequences relating to choking. Safeguarding concerns can arise from poor/ dangerous feeding. Families have shown to be more responsive once they understand consequences - links to emotion and knowledge. One SLT highlights that thickener use should be avoided due to negative long-term use this conflicts with care homes reliance on thickener when waiting for SLT input.	Motivated by patient improvements suggests family carers show greater motivation for care. SLT recommendations need to be communicated as clearly as possible to as many carers as possible. Offers feedback. Recommends a more holistic approach to care giving.	To improve a person's swallow, safety and food enjoyment and to reduce adverse outcomes including risks of aspiration & choking - more training is needed to achieve this	**Memory:** Visual Cues/ Prompts, these would be helpful to assist memory, suggestions include checklist, six box grid or a placement. Homes discourage signs on walls. Not guaranteed staff will pay attention to prompts. **Attention:** Highlights what staff should look out for when feeding a resident. Discusses what instructions staff will physically pay attention to. Tendency to ignore memory prompts One trust did some research and revealed staff will only follow a maximum of three recommendations anything above this is too much. **Decision Making:** SLT decide who to visit based on their referral. Referrals are triaged by experienced and knowledgeable SLT. The referral the care home provides need to be detailed and correct to enable decision, SLT usually phone home to obtain more information. Referral timeframe is 72hours-25 days.	Lack of continuity of care is a major barrier. COVID-19. Financial Limitations. Government drives/ focus. Time restraints. Referral time frames. Care homes vary in structure - some homes carers provide food. Undertrained, underpaid Holistic approach. Use of agency staff. High workload. Care homes have responsibility. Information & training materials available online.	Comments on the hierarchical structure of care homes. Managements at the top and need to enforce/ support positive changes. Staff need to pass information throughout the team - team effort and peer support crucial.	Mealtimes are the most stressful time of the day for carers. High workload can leave staff feeling overwhelmed. Anxiety around choking instances with higher stress placed on management. SLT displays empathy for the job care staff do and discuss their emotional drive to conducting their work. Suggests carers should experience being fed poorly in order to form emotional understanding .

				agency staff go in blind.							

	Knowledge	**Skills**	**Social/ Professional Role & Identity**	**Beliefs about capabilities**	**Beliefs about consequences**	**Intentions**	**Goals**	**Memory, attention & decision making**	**Environmental context & resources**	**Social Influences**	**Emotion**
1 (DL)	Specialist knowledge of dysphagia and diet. Gained a lot of knowledge from the role. Attends training and reads/ refers back to the literature	Housekeeping element provides a different form of interaction. Time management is important due to heavy workload. Communication is key. Can handle conflict and ask for help when needed.	Emphasis on being part of a team throughout interview, trusted and respected by those they work with. Teaching element to role	Confident, self-assured learns from mistakes values the whole team	Able to hold staff accountable, aware of barriers in health system	Patient driven care, wants to learn does not need a financial incentive	Share information, prevention of harm. Patient care is most important	Able to be diplomatic. Pays attention to patients looks for patterns/causes/ explanations.	Good relationships with department links, other colleagues happy for their input and value extra information	Has a supportive manager - saw their potential for role .	Shows passion for role.
2 (NF)	No prior specialist knowledge required for the role. Pass knowledge throughout the hospital. Lack of knowledge in team. On the job learning not academic. Not knowing the knowledge behind why you do something leads to slipping practice	make resources work for her - adaptable, good communication	Represents Paediatric unit. Point of contact. Extension of both teams, part of her professional development. Member of the Infection Prevention Society. Sought out the role not allocated	Driven & self-motivated .	Patient focused, Stop children getting infections.	Patient focused, Stop children getting infections. No financial incentive	Improving care, career development	noticed gaps in training	No hierarchy in the unit but thinks hierarchy should be dismantled and would act as a barrier. Shift patterns make time to attend. All they need is a cordless phone - communicate on the go and be available. Policy can be a barrier. "Loads" of LP in her hospital. Well supported	Supported, come together can ask for help	Passion is important .

3 (NS)	No prior specialist knowledge required for the role. Knowledge from role as associate practitioner and university. Attends training to stay up to date with new information and techniques.	People skills, good time management	Oversee not in charge of. There to offer help and monitor behaviours. Respected by those they work with.	Aware has more to learn	Not discussed.	No financial incentive needed Motivated to do role from passion and interest in topic area.	Raise awareness	Not discussed	Department acknowledges value and importance of having a LP. Been LP for 10 years suggest good staff retention and low turnover. Prefers working in a small team	Has a good support network	Not discussed
4 (NS-F)	Had a prior interest in the role. Share what the learn. No prior specialist knowledge but believes everyone should have a basic understanding of infection control.	Observant, friendly, time management	Acts as a point of contact. Shares the role with multiple LP so not alone.	Confident, willing to escalate issues.	Not discussed	Not discussed	Share what they learn around the ward.	Knows appropriate action to take	Team environment, many LP on the ward they work in. Each ward is different. Has allocated time for training and shift patterns are managed to accommodate training needs. People are accepting of role.	Not discussed .	Not discussed .
5 (LG)	Interest is key. Manage own further learning. Study days. Helping patients to understand why makes it easier to facilitate behaviour change/ follow treatment. Need to be confident in your knowledge	Organised Driven GOOD COMMUNICATION problem solving. Not only about clinical skills.	Self-motivated, organised, driven, selfless, confident, provide support. Inform higher ups of new practice, ensure departments run well - supervisory/ advisory role. Respected	Confident, self-belief, self efficacy, knew what they want. Earnt respect, make people feel safe. Admits mistakes	Admits mistakes and learns how to prevent them in the future. Not about blame. Give people the tools to improve and learn from mistakes. Puts a positive spin on mistakes..	Voluntary role - no financial incentive. Ensure safe practice. Invested in training and development.	Goal to spread knowledge. Motivated by patient healing. Knowledge and good practice as main goals. Reducing knowledge gaps	Tailor advice to current issues, open to change	Continuity of care is important- agency staff as a barrier to this, Hospital based, patients have different levels of needs. LP role benefits hospital. In order to be successful need to be supported by the hospital. Not filling the role is not due to lack of passion its due to environment e.g. lack of support, issues, not feeling safe. Currently understaffed ++Stress.	Support from management, Senior staff leaving causes stress. Manager and TVSN saw her potential role.	Passion +++

									Other link nurses form their own "network" come together to manage high workload. Some nurses lack enthusiasm for wound care. LP provides an easy point of contact in the dept. Issues with respect from patients/ relatives - not considered specialist due to nurse uniform. Emphasis on creating a supportive environment.		
6 (SM)	Tissue viability was an area of interest..	Self driven, seeks help when needed, problem solving	Advisory role. Accessible - ID shows they are LP and available to help. Ensure procedures are carried out	Aware doesn't know all. Confident - makes voice heard ..	Not discussed	Clear streamlined service.	Not discussed	Has problem solving skills, shows flexibility in decision making and is open to new ideas. .	Safe space for suggestions and open to new ways of thinking. Emphasis on team environment. Hierarchy of experience causes problems. Continuity of care is important and often a barrier - all should be on the same page.	Encouraged by seniors, has a WhatsApp group to bring unit together - facilitate easy communication. Hierarchy detrimental.	Not discussed
7 (MK)	Source of knowledge. Share what they learn. Subscribes to magazines - prior interest. Builds on basic knowledge.	Organised, detail orientated. Self-driven. Invests time in skill development. Confident Pt orientated	Group of 3 LP. Acts as a resource for the rest of the team. Visible and approachable. More than a job. Passionate. Driven. Teaching element. Confident	Something they really wanted to do. Wanted to learn willing choice to do extra and go beyond. Impressed their manager	Focus on prevention of damage If	No financial incentive needed. Work based incentive/ progression. Opens channels of communication .	Role is pare of their career development . Share knowledge - submitted an Abstract for ABSSN conference Goal/ result driven.	Needs to be able to manage workload.	Managers value role. Team sees value in role. Communicates via email to keep team up to date. Beneficial to trust, accepted Available to provide prompt response. Accessible - opening channels of communication. Keep the whole team up to date. Need to be supported by managers, and time is essential.	Team of three, relationship with patient is important ?interaction - see problem see solutions.	Passion +++ people can see their passion.

	Strong emphasis on knowledge seeking, continual learning	detail orientated				Being an LP is part of her career development Something they REALLY wanted to do..					
Overall	LP demonstrates high level knowledge (practical and policy) related to both main and link role, required to develop knowledge through training as well as own learning and disseminate to work colleagues. Info shared on shift via handovers LP should be approachable and available to provide insight and guidance with aim to provide best patient care.	Not about clinical skills - good communication is essential. Along with people skills, organised, time management, problem solving, self-driven, able to seek help when needed.	Largely an advisory/ supervisory role. Ensures correct practice and oversees how ward is run. Respected. Views themselves as a point of contact and source of knowledge to help facilitate staff learning (teacher) and ensure best practice. Not a solo venture often many LP throughout hospital or even own department - group identity.	LP is driven, motivated and confident in their own abilities, Willing to escalate poor practice, Admits own mistakes and has earnt respect from their colleagues	Negative consequences not discussed Takes a more positive approach focus of prevention, mistakes are to be learnt from without focusing on blame. Overall positive consequence = improved patient care	Self-driven passionate doesn't need a financial incentive to do the job well	Career development enhance patient care/ safety	Memory: Implied ability to retain information and used what the learn in training on a daily basis. Attention: Pay attention to patients, Notice gaps in the training/ areas for improvement or where staff may be lacking, keep self-up to date with new literature Decision Making: Be able to tailor advice, be open to change and hold a diplomatic view point when making decisions.	Organisational support - shift patterns, access to training and resources. Mangers and wider team see value in the role. Each ward is different not a one size fits all approach Staffing issues caused stress. If there is a lack of passion from staff this is due to environment and not feeling supported., Hierarchy is negative and should be dismantled.	Social support from managers is important relationship with patient is important Build a support network bring unit together to facilitate care and good communication	Passion is important and stated in most interviews. Role can be stressful

Appendix 2.3 Data Capture Forms

SLT Guidelines
Resident code:
Date Initial SLT Assessment:
Date Subsequent SLT Assessment:

- Food modification
    - Food recommendations -
    - Serving/portion size -
    - Level -
- Fluid modification
    - Level -
    - Drinking vessel to support swallowing -
- Swallowing strategies
    - Specialist equipment to support independent eating -
    - Verbal prompts -
    - Tactile prompts -
    - Visual prompts -
    - Wait for clearing of throat -
    - Guide utensil/cup -
    - Alternate food and drink -
- Swallowing safety
    - Posture -
    - Alertness -
    - Complete swallow before next mouthful -
    - Supervision -
    - Assistance -
    - Monitor -
    - Ensure mouth clear at end of meal -
    - Advice on managing coughing -
    - Advice on oral care -
- Risk Warnings (Care Plan)

Resident demographic data

Nursing home: ……..

Unit			
Resident code			
Date admitted			
Reason for admittance			
Date consented			
Mental capacity		□ yes	□ no
Consented by self		□ yes	□ no
Consented by consultee		□ yes	□ no
Age			
Gender		□ male	□ female
Previous history of stroke/CVA?		□ yes	□ no
Dementia or Alzheimer's?		□ yes	□ no
Other neurodegenerative disorder		□ yes	□ no
Other underlying condition			
Other mental health condition			
Barthel index			
SLT referral			
1st SLT review		Date:	
		□ Community SLT	□ Hospital SLT
Subsequent SLT review/s		Date:	
	1.	□ Community SLT	□ Hospital SLT
		Date:	
	2.	□ Community SLT	□ Hospital SLT
		Date:	
	3.	□ Community SLT	□ Hospital SLT
Other guidance on dysphagia care		Date:	
		Source:	
Weight change			
Weight on admission			
Weight at 1st SLT review			
Current weight			
Adverse events in last 12 months			
Episodes of choking		□ yes	□ no
		If yes – dates:	
Treatment for chest infection/pneumonia		□ yes	□ no
		If yes – dates:	
Admission to hospital		□ yes	□ no
		If yes – dates:	

Data Collection Form – Cases of Pneumonia/Lower Respiratory Tract Infection

Date: **Unit:** **Diagnosis:**

Resident Code:

Case Description:

Signs and Symptoms:	**Yes/No:**	**Description/Specify:**
Diagnosis given by a GP?		
Positive x-ray?		
Change in temperature?		
Blood tests?		
SATS taken?		
Vital signs taken?		
Functional decline?		
Mental decline?		
New or increased cough?		
Other chest signs?		
Treatment:		
Receive antibiotics? State which.		

Case Definitions for Pneumonia/Lower Respiratory Tract Infection

Category of sign/symptom	ECDC Long term care	
	Pneumonia	**Lower RTI**
Chest X-ray	Positive X-ray for pneumonia or new infiltrate	No positive X-ray/not done
Systemic signs/symptoms	***AND At least 1 of:***	***AND At least 1 of:***
	Fever >37.8^{o}C OR repeated >37.2^{o}C oral or >37.5^{o}C rectal OR > 1.1^{o}C from baseline	Fever >37.8^{o}C OR repeated >37.2^{o}C oral or >37.5^{o}C rectal OR > 1.1^{o}C from baseline
	leucocytosis (>=14000wbc/mm^{3}) or left shift (>6% or >= 1500 bands/mm^{3})	leucocytosis (>=14000wbc/mm^{3}) or left shift (>6% or >= 1500 bands/mm^{3})
	Acute functional decline (e.g. new 3 point increase in total ADL score from baseline (bed mobility, transfer, locomotion, dressing, toilet use, personal hygiene, eating)	Acute functional decline (e.g. new 3 point increase in total ADL score from baseline (bed mobility, transfer, locomotion, dressing, toilet use, personal hygiene, eating)
	Acute change in mental status from baseline (e.g. confusion, altered consciousness)	Acute change in mental status from baseline (e.g. confusion, altered consciousness)
Respiratory signs/ symptoms	***At least 1 of:***	***At least 2 of:***
	New or increased cough New or increased sputum O2 saturation <94% or decreased >3% from baseline	New or increased cough New or increased sputum O2 saturation <94% or decreased >3% from baseline
	Abnormal lung examination (rales, bronchial breath sounds, ronchi, wheezing) Pleuritic chest pain Respiratory rate >= 25 breaths/min	Abnormal lung examination (rales, bronchial breath sounds, ronchi, wheezing) Pleuritic chest pain Respiratory rate >= 25 breaths/min
Clinicians diagnosis	Absence of other conditions such as chronic heart failure that could account for symptoms	Attending physicians records diagnosis in case records and commences appropriate antimicrobial therapy

Data Collection Form – Observation of Elements of Nutrition & Hydration Care for Residents with Dysphagia

Date:	**Unit:**	**Start Time:**	**End Time:**
Resident Code:	**HCA Code:**	**Observing:** B ☐ L ☐ D ☐·	
Resident: Dining Room ☐ TV Room ☐Private Room ☐· Bed ☐ Chair ☐Specialist Chair ☐· Comments (seated alone/family, position):	**HCA:** HCA ☐ SrHCA ☐ RN ☐· Permanent Staff ☐ Agency Staff ☐· Length of employment: Present ☐ Semi Present ☐ Not Present ☐ Seated ☐ Standing ☐ Kneeling ☐· Comments (speed /movement/demeanour):	**Researcher:** JW ☐ AT ☐ AW ☐· JvB ☐· Comments (location):	

	Safe Swallowing Recommendations	**SLT REC** Y/N	**SLT REC Specification**	**Care Plan** Y/N	**Care Plan Specification**	**SLT match Care Plan?** Y/N	**Observation SLT** Y/N	**Observation Care Plan** Y/N	**Describe what happened:**
Food & Fluid Modification	Food recommendations								
	Serving size/Portion size (comment on bolus, cavity)								
	Texture (IDDSI Level)								
	Thickened fluids (IDDSI Level)								
	Drinking vessel to support swallowing								
	Safe Swallowing Recommendations	**SLT REC** Y/N	**SLT REC Specification**	**Care Plan** Y/N	**Care Plan Specification**	**SLT match Care Plan?** Y/N	**Observation SLT** Y/N	**Observation Care Plan** Y/N	**Describe what happened:**

Swallowing Strategies	Specialist equipment to support independent feeding e.g. adapted cutlery, plate guard								
	Verbal prompts								
	Tactile prompts								
	Visual prompts								
	Wait for clearing of throat e.g. double swallow technique								
	Guide utensil/cup e.g. hand-over-hand technique								
	Alternate food & drink								
Swallowing safety	Posture								
	Alertness for eating/drinking								
	Complete swallow before next mouthful								
	Supervision of eating/drinking								
	Assistance with eating/drinking								
	Monitor eating/drinking								
	Ensure mouth clear at end of meal								
	Advice on managing coughing								
	Advice on oral care								

Specialist knowledge	Have you received any formal training?	
	Do you have any training/experience with dysphagia care?	
	Did you receive any guidance in feeding this resident?	
	Have you seen this residents SLT guidelines?	
	Have you seen the residents care plan?	
	Do you feel able to give adequate care to this resident?	
	Do you feel supported (guidance, training) by the care home to care for residents with dysphagia?	

Additional comments/notes:

Appendix 2.4 New cases of LRTI

Care Home A

Month: February						
	Buckingham (31)	**Belgravia (35)**	**Kensington (36)**	**Windsor (27)**	**Balmoral (17)**	**Total (146)**
1	29	28	34	26	13	130
2	29	29	34	26	13	131
3	30	29	34	26	13	132
4	30	29	34	26	12	131
5	30	29	35	25	12	131
6	29	29	35	25	12	130
7	29	28	35	25	13	130
8	29	28	35	25	13	130
9	29	28	35	25	13	130
10	29	28	35	25	11	128
11	30	28	36	25	11	130
12	30	28	36	25	11	130
13	30	28	36	25	12	131
14	30	28	36	25	12	131
15	30	28	36	25	12	131
16	30	28	36	23	12	129
17	31	28	36	24	12	130
18	30	28	36	24	11	128
19	30	28	36	24	11	128
20	31	29	36	25	12	132
21	31	29	36	25	12	132
22	31	29	36	25	12	132
23	31	29	36	25	12	132
24	30	29	35	25	13	132
25	31	29	35	25	14	134
26	31	29	34	24	14	132
27	31	30	34	24	14	133
28	31	30	34	25	14	134
29	31	30	34	25	14	134
Total						
Total Admissions	2	1	2	1	4	10
Total Discharges	0	0	1	2	2	5
Total Hospital Days	8 days	14 days	7 days	3 days	11 days	43 days
Total New Cases SLT	0	0	0	0	0	0
Total New Cases LRTI	3	0	1	0	0	4
Instance						

Month: March						
	Buckingham (31)	**Belgravia (35)**	**Kensington (36)**	**Windsor (27)**	**Balmoral (17)**	**Total (146)**
1	31	30	34	25	14	134
2	31	30	34	25	14	134
3	31	31	34	25	14	135
4	31	30	34	25	14	134
5	30	31	34	25	13	133
6	30	31	34	25	13	133
7	30	31	34	25	13	133
8	30	31	34	25	13	133
9	30	31	34	25	13	133
10	30	32	34	24	13	133
11	30	32	34	24	13	133
12	29	32	34	25	13	133
13	30	32	34	24	14	134
14	30	32	34	24	14	134
15	30	32	34	24	14	134
16	30	33	34	24	14	135
17	29	33	34	24	14	134
18	30	33	33	24	14	134
19	30	33	34	24	14	135
20	30	33	34	24	14	135
21	30	33	34	24	14	135
22	30	33	34	24	14	135
23	30	33	34	24	14	135
24	29	33	33	23	14	132
25	29	33	33	23	14	132
26	28	33	33	23	14	131
27	27	33	33	23	14	130
28	27	33	33	23	14	130
29	27	33	33	23	14	130
30	27	33	33	23	14	130
31	27	33	33	23	14	130
Total						
Total Admissions	0	4	0	0	0	4
Total Discharges	3	1	1	2	0	7
Total Hospital Days	8 days	0 days	2 days	2 days	9 days	21 days
Total New Cases SLT	0	0	0	0	0	0
Total New Cases LRTI	1	0	1	0	0	2
Instance						

Care Home B

Month: February				
	1st floor (27)	**2nd floor (41)**	**3rd floor (22)**	**Total (90)**
1	27	36	19	82
2	27	36	20	83
3	27	35	20	82
4	27	36	20	83
5	27	37	20	84
6	27	38	20	85
7	27	38	20	85
8	27	38	20	85
9	27	38	20	85
10	27	38	21	86
11	27	40	22	89
12	27	41	22	90
13	27	41	22	90
14	26	41	22	89
15	26	41	22	89
16	26	41	22	89
17	26	40	22	89
18	26	40	22	89
19	26	40	22	89
20	26	40	22	89
21	26	39	22	88
22	26	39	22	88
23	26	39	22	88
24	26	39	22	88
25	26	39	22	88
26	26	39	22	88
27	26	39	22	88
28	26	39	22	88
29	26	39	22	88
Total	731	1126	618	2475
Total Admissions	0	7	3	10
Total Discharges	0	4	0	4
Total Hospital Days	16 days	0 day	1 day	17 days (factored into totals already)
Total New Cases SLT	1 referral and assessment (AS)	0	0	1
Total New Cases LRTI	1x AP	0	0	1x AP

Month: March				
	1st floor (27)	**2nd floor (41)**	**3rd floor (22)**	**Total (90)**
1	26	38	22	87
2	26	38	22	87
3	26	38	22	87
4	26	38	22	87
5	26	37	22	86
6	26	37	22	86
7	26	37	22	86
8	26	37	22	86
9	26	37	22	86
10	26	40	22	89
11	26	40	22	89
12	26	40	22	89
13	26	40	22	89
14	26	40	22	89
15	26	40	22	89
16	26	40	22	89
17	26	40	22	89
18	26	40	22	89
19	26	40	22	89
20	26	40	22	89
21	26	40	22	89
22	26	40	22	89
23	26	40	22	89
24	26	39	21	87
25	26	39	21	87
26	26	39	20	86
27	26	39	20	86
28	26	39	20	86
29	26	39	20	86
30	26	39	20	86
31	26	40	21	88
Total	806	1210	669	2685
Total Admissions	0	3	1	4
Total Discharges	0	2	2	4
Total Hospital Days	31 days	5 days	0 days	36 days
Total New Cases SLT	0	0	0	0
Total New Cases LRTI	1	1	2	4
Instance	4/2685x100= 0.15%			
Instance	1/2475 x 100 = 0.04%			

Appendix 2.5 Safety Behaviour Survey

Safety Behaviour Survey for Caring for Residents with Swallowing Difficulties

About the Research Project

This project aims to understand how people who have a problem with swallowing can be cared for safely in nursing and residential care homes. It is funded by the National Institute of Health Research.

The information we collect from this survey will be used to improve the safety of eating and drinking for theses residents to reduce their risk of choking, dehydration, malnutrition, and pneumonia.

By filling in this survey you will be helping us to understand the problems that you have when helping people with swallowing difficulties to eat and drink.

- Your answers will not be linked to you personally. They will be anonymous.
- It should take about 15 minutes to complete.
- The questions are about caring for residents who have swallowing difficulties. This is also called **dysphagia**.
- Please think about how you care for these residents when you answer the questions.
- There are no right, or wrong answers so **please circle** how much you agree or disagree with each of these statements.

Please note that by completing this survey you are consenting to participate in the study.

If you have any questions or concerns that you would like to raise about the study please contact the project lead, Professor Jennie Wilson on the following address: jennie.wilson@uwl.ac.uk

Please circle the number that best matches how much you agree with the following statements about helping residents with swallowing difficulties.

Example:

Question list	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
I am told what to do to help the resident to eat and drink safely.	1	(2)	3	4	5

Question list	Strongly agree	Agree	Unsure	Disagree	Strongly disagree
1. I know that the speech and language therapist (SLT) will make recommendations about the care of residents with swallowing difficulties.	1	2	3	4	5
2. It is important to me that the resident knows what is in their meal before I help them to eat.	1	2	3	4	5
3. I know what food texture and thickness (e.g., minced & moist, pureed or soft & bite sized) each resident needs to eat and drink safely.	1	2	3	4	5
4. The right equipment (e.g plate guard, angled spoon) is available to help me feed the resident.	1	2	3	4	5
5. I think about the other things I need to do when I am helping the resident eat and drink.	1	2	3	4	5
6. It is my responsibility to know the speech and language therapist (SLT) recommendations for each resident with swallowing difficulties	1	2	3	4	5
7. I am confident that I can help the resident to eat and drink safely.	1	2	3	4	5
8. I read the residents care plan before a mealtime so I can plan how to help them eat and drink safely.	1	2	3	4	5
9. I worry that the resident might choke when I am helping them to eat or drink.	1	2	3	4	5
10. I know not to use a straw or a beaker for the residents who have swallowing difficulties.	1	2	3	4	5
11. I would get in to trouble if I didn't follow the care plan when helping the resident eat and drink.	1	2	3	4	5
12. I have a set amount of time to help the resident eat and drink.	1	2	3	4	5
13. Other care assistants don't follow the care plan for helping the resident to eat and drink safely.	1	2	3	4	5
14. I know what I should do if the resident coughs or chokes when I am helping them to eat or drink.	1	2	3	4	5
15. I have good reasons for not following the care plan when I am helping the resident to eat and drink.	1	2	3	4	5
16. I don't think following the care plan is important when helping the resident to eat and drink.	1	2	3	4	5
17. I am told what to do to help the resident to eat and drink safely.	1	2	3	4	5

Question list	Strongly agree	Agree	Unsure	Disagree	Strongly disagree

18. I can ask the qualified nursing staff for advice on how to help the resident to eat and drink safely.	1	2	3	4	5
19. I always watch the resident while I am helping them to eat and drink.	1	2	3	4	5
20. I am not sure what my role is in helping the resident to eat and drink safely.	1	2	3	4	5
21. I can take the correct action if the resident is having trouble swallowing.	1	2	3	4	5
22. I often forget what I am supposed to do to help the resident eat and drink safely.	1	2	3	4	5
23. I worry about whether I am giving the right care when I am helping the resident to eat and drink.	1	2	3	4	5
24. I aim to get the job done quickly when I am helping the resident to eat and drink.	1	2	3	4	5
25. I do not find it easy to follow the care plan when helping the resident to eat and drink.	1	2	3	4	5
26. I have not had enough training to know what to do when the resident is having trouble swallowing.	1	2	3	4	5
27. Qualified staff check that I am following the care plan when I am helping the resident to eat and drink.	1	2	3	4	5
28. I always follow the care plan when I am helping the resident to eat and drink.	1	2	3	4	5
29. It is not my responsibility to know the IDDSI levels (International Dysphagia Diet Standardisation initiative) for food texture and thickness.	1	2	3	4	5
30. I can always sit the resident upright before I start helping them to eat or drink.	1	2	3	4	5
31. I can rely on the other care assistants to tell me how to help the residents to eat and drink safely.	1	2	3	4	5
32. I get frustrated when it takes the resident a long time to eat and drink.	1	2	3	4	5
33. Other tasks get in the way of me helping the resident to eat and drink safely	1	2	3	4	5
34. I know how much food to offer in each mouthful for the resident to eat and drink safely.	1	2	3	4	5
35. The resident would choke if I didn't follow the care plan when helping them to eat and drink.	1	2	3	4	5
36. I make decisions about how to feed the resident with swallowing difficulties.	1	2	3	4	5
37. There isn't always enough time to support residents to eat and drink safely.	1	2	3	4	5
38. At mealtimes, I plan when I will help the resident with swallowing difficulties to eat.	1	2	3	4	5

The Dysphagia Project Team, Richard Wells Research Centre, University of West London

Thanks you for taking the time to complete this survey

Appendix 2.6 Safety Behaviour Survey by Domain

		Question list
Knowledge	1	I know that the speech and language therapist (SLT) will make recommendations about the care of residents with swallowing difficulties
	3	I know what food texture and thickness (e.g., minced & moist, pureed or soft & bite sized) each resident needs to eat and drink safely.
	10	I know not to use a straw or a beaker for the residents who have swallowing difficulties.
	34	I know how much food to offer in each mouthful for the resident to eat and drink safely.
Skills	14	I know what I should do if the resident coughs or chokes when I am helping them to eat or drink.
	26	I have not had enough training to know what to do when the resident is having trouble swallowing.
	30	I can always sit the resident upright before I start helping them to eat or drink.
Social/ Professional Role & Identity	6	It is my responsibility to know the speech and language therapist (SLT) recommendations for each resident with swallowing difficulties
	20	I am not sure what my role is in helping the resident to eat and drink safely.
	29	It is not my responsibility to know the IDDSI levels (International Dysphagia Diet Standardisation initiative) for food texture and thickness.
Beliefs about Capabilities	7	I am confident that I can help the resident to eat and drink safely.
	21	I can take the correct action if the resident is having trouble swallowing
	25	I do not find it easy to follow the care plan when helping the resident to eat and drink.
Beliefs about Consequences	11	I would get in to trouble if I didn't follow the care plan when helping the resident eat and drink.
	16	I don't think following the care plan is important when helping the resident to eat and drink.
	35	The resident would choke if I didn't follow the care plan when helping them to eat and drink.
Motivation & Goals	2.	It is important to me that the resident knows what is in their meal before I help them to eat.
	24	I aim to get the job done quickly when I am helping the resident to eat and drink.
	28	I always follow the care plan when I am helping the resident to eat and drink.
	33	Other tasks get in the way of me helping the resident to eat and drink safely
	37	There isn't always enough time to support residents to eat and drink safely.
Memory, Attention & Decision Making	5	I think about the other things I need to do when I am helping the resident eat and drink.
	15	I have good reasons for not following the care plan when I am helping the resident to eat and drink.
	19	I always watch the resident while I am helping them to eat and drink.
	22	I often forget what I am supposed to do to help the resident eat and drink safely.
	36	I make decisions about how to feed the resident with swallowing difficulties.

Environmental Context & Resources	4	The right equipment (e.g plate guard, angled spoon) is available to help me feed the resident.
	12	I have a set amount of time to help the resident eat and drink.
	17	I am told what to do to help the resident to eat and drink safely.
Social Influence	13	Other care assistants don't follow the care plan for helping the resident to eat and drink safely.
	18	I can ask the qualified nursing staff for advice on how to help the resident to eat and drink safely.
	27	Qualified staff check that I am following the care plan when I am helping the resident to eat and drink.
	31	I can rely on the other care assistants to tell me how to help the residents to eat and drink safely.
Emotion	9	I worry that the resident might choke when I am helping them to eat or drink.
	23	I worry about whether I am giving the right care when I am helping the resident to eat and drink.
	32	I get frustrated when it takes the resident a long time to eat and drink.
Action Planning	8	I read the residents care plan before a mealtime so I can plan how to help them eat and drink safely.
	38	At mealtimes, I plan when I will help the resident with swallowing difficulties to eat.

Appendix 2.7 Stakeholder Event Presentation Slides for Group Discussion

Dysphagia Link Practitioner

Who - Individual Role?

- What characteristics and level of skill does this individual need to have?
- Should the role be undertaken by:
  - a qualified nurse, Senior HCA, HCA, Activities Coordinator, OT, other?
- How would the practitioner be supported/ supervised?
- Does the role need to be incentivised? If so, how?

Dysphagia Link Practitioner

Where – Organisational base and links?

- Where does this individual need to be situated?
  - In the care home?
  - Non-acute e.g., as part of a SLT team, District Nursing team?
  - Acute Trust as part of a specialist team e.g. Frailty
  - Is there a preferred model or could it be a mix?
- What are the Pros/Cons?

Dysphagia Link Practitioner

What – Needs to happen at a wider system level?

- What systems need to be in place for the role to be successful?
  - Which key stakeholders need to 'champion' the initiative?
  - What collaborative partnerships could help to make this happen?
  - What training materials and approaches would work best?
  - Should competencies be assessed/mandated?
  - What guidelines need to be in place?
  - Would digital solutions be useful to allow ease of access and consistency of delivery e.g., 'App' based guidelines and training materials?

Dysphagia Link Practitioner

Acceptability *how far is it acceptable to all residents, relatives and staff ?*

Practicability *is it practical & what system changes would support the implementation of a DLP role?*

Effectiveness *would a DLP be effective in influencing the capabilities opportunities and motivation of staff?*

Affordability *what would make the intervention affordable when delivered at scale?*

Side Effects *are there any unintended adverse or beneficial outcomes?*

Equity *How far does it increase or decrease differences between advantaged and disadvantaged sectors of society ?*

Appendix 3.1 Example of Two Referral Forms Used by SLT

Needs-Based Referral Form

This form is to be completed for all patients who have a new or changed need for Community Services including District Nursing, Neuro Rehabilitation and Falls Rehabilitation.
Please send the completed form to the CLCH Single Point of Access via electronic referral on SystmOne.
If the patient does not consent to sharing their clinical records, email the referral to the CLCH SPA for **Central London, West London Hammersmith & Fulham CCGs:** Clcht.Spa@nhs.net

<table>
<tr><th colspan="4">Patient Information</th></tr>
<tr><td colspan="2">Full name:</td><td colspan="2">NHS number:</td></tr>
<tr><td colspan="2">DOB:</td><td colspan="2" rowspan="2">Address:</td></tr>
<tr><td colspan="2">Contact telephone:</td></tr>
<tr><td colspan="2">Email address:</td><td colspan="2">Postcode:</td></tr>
<tr><td colspan="4">Preferred contact method: Phone ☐ Email ☐ Post ☐ Text ☐</td></tr>
<tr><td colspan="4">Nominated contact details (if applicable):</td></tr>
<tr><td colspan="4">Disability / sensory loss related communication needs (provide any recorded communications needs for the patient/carer/parent when contacting or being seen):</td></tr>
<tr><td>Ethnicity:</td><td>First language (inc BSL):</td><td colspan="2">Interpreter required: Yes ☐ No ☐</td></tr>
<tr><td colspan="4">Are there any cultural, spiritual or religious preferences which need to be taken into consideration:</td></tr>
<tr><td colspan="2">Next of kin:</td><td colspan="2">Relationship:</td></tr>
<tr><td colspan="2">Next of kin address:</td><td colspan="2">Contact telephone:</td></tr>
<tr><td colspan="2">Emergency contact (if different):</td><td colspan="2">Relationship:</td></tr>
<tr><td colspan="2">Address:</td><td colspan="2">Contact telephone:</td></tr>
<tr><th colspan="4">Referral Information</th></tr>
<tr><td colspan="2">Referrer's name:</td><td colspan="2">Referrer's contact details:</td></tr>
<tr><td colspan="2">GP Practice and address:</td><td colspan="2">Date of referral:</td></tr>
<tr><td>Does the patient consent to the referral? (Explain how their information will be used, stored and shared)
Yes ☐ No ☐</td><td colspan="3">If the patient does not have capacity to consent to the referral, provide details of the best interest assessment or DoLS assessment completed:</td></tr>
</table>

Reason for Referral

Type of support required (tick all that apply):
Nursing ☐ Physio ☐ OT ☐ Social Worker ☐ Other (please specify) ☐

Reason for referral including primary diagnosis and goal of intervention *(e.g. patient to achieve rehab goals, be supported with activities of daily living, have medication administered in the community, increase in care package etc.):*

List any concerns or risk factors for the patient *(including falls, wandering, pressure ulcers, malnutrition and diet, cognition and memory, swallowing and risk of stroke, self-harm, neglect and whether the patient is bed bound):*

Estimated length of support required:
Short-term support (0-6 weeks) ☐ Long-term support (6 weeks+) ☐

Is the patient able to attend an appointment in clinic? Yes ☐ No ☐	**Timescale for seeing the patient, i.e. Is the referral urgent?**

Are other services required to support the patient *(e.g. patient transport, pharmacy):*

Past Medical History

Overview of existing health conditions and disabilities *(Provide details of diagnoses including physical health, mental health and learning disabilities):*

Details of advanced care plan/ co-ordinate my care plan *(if known)*:	Details of any allergies:

Details of existing services received *(health, social and voluntary sector services):*

Home Access Information

Details of gaining access to the property *(e.g. key safe number, steps into the property):*

Are there any risk factors for visiting staff *(i.e. details of pets, other family members or relatives who may pose a risk to staff, hoarding etc):*	Agreed actions to mitigate/ manage risk:

Tri Borough Community Neuro Service **Admin Phone: 020 8102 3879**

NHS No:	
Family Name:	**Forename:**

NEURO SERVICE SELF REFERRAL FORM

Family Name:	**Title:**
Forename:	**Preferred name:**
Permanent address Postcode	Home Tel: Work Tel: Mobile Nº: E-mail/ Fax Borough
Current Location (if different): Postcode:	Home Tel: Work Tel: E-mail/ Fax Borough
Date of Birth: Preferred Language Is an interpreter required? Yes ☐ No ☐ Are there any other communication needs? Yes ☐ No ☐ Please Specify	Gender: Occupation Ethnicity Religion
General Practitioner Tel Nº: Fax Nº: E-mail:	

NHS No.:	
Family Name	**Forename**

REFERRAL FORM

Referral to: Community Neuro Service
Referral Requested by: **(Relationship to client)**
Name: **Contact Tel No:** **(If not the client)**
Referral Completed by: **Name:** **Date completed:**

Reason for referral

- Diagnosis (If known)

- Problem (What is the reported difficulty)

- Needs (What is being required or requested by the person making the referral)

Do you feel this needs urgent referral?	Yes	☐	No	☐
If yes state why:				

Example of common reasons for self – referrals to Neuro;

- **Reduced mobility**
- **Falls**
- **Upper limb weakness**
- **Coughing and choking on food or drinks**
- **Broken equipment**
- **Review of exercise programme**
- **Difficulty accessing the community**

Appendix 4.1 Individual Characteristics of consented residents

Care Home	Resident	Obs	Age	Gender	Medical Diagnosis	Barthel Index	Admission Date	Weight on admission	Current Weight (March 2020)	SLT Recommendation Date	Location of SLT Recommendations	Choking instances in last 12 months	LRTI in last 12 months	Hospital Admissions in last 12 months	Deceased as of Aug, 2020
A	AAA39	N	80	Male	CVA	1	07/12/2017	Not Documented	74.2kg	Not Documented	Within Care Plan	Y	Y	1	N
A	AW35	N	84	Male	Dementia	4	29/05/2018	Not Documented	66.2kg	Not Documented	Within Care Plan	Y	N	N	Y
A	EB60	N	59	Female	CVA	5	07/06/2019	Not Documented	88.9kg	Not Documented	Within Care Plan	Y	N	N	N
A	JB47	Y	73	Male	Dementia	1	04/01/2010	Not Documented	71.9kg	18/07/2018	Within Care Plan	N	N	N	Y
A	JF22	Y	97	Female	Dementia	1	13/03/2017	Not Documented	44.8kg	Not Documented	Separate file	N	N	N	Y
A	JW56	N	64	Male	Dementia	3	04/04/2016	Not Documented	55.4kg	14/07/2017	Within Care Plan	N	N	N	Y
A	KR36	Y	84	Male	Dementia	4	03/01/2019	Not Documented	70.4kg	06/02/2020	Within Care Plan	Y	Y	N	Y
A	MD56	N	63	Male	Dementia	2	20/03/2014	Not Documented	71.4kg	03/01/2018	Within Care Plan	Y	N	N	N
A	MJ48	Y	71	Female	Dementia	1	15/11/2010	Not Documented	60.7kg	03/01/2018	Within Care Plan	Y	Y	N	N
A	PA69	N	51	Female	CVA	1	27/06/2019	Not Documented	64.2kg	Not Documented	Within Care Plan	Y	Y	N	N
A	VB50	N	86	Female	CVA	0	21/02/2007	Not Documented	53.5kg	Not Documented	Not located	Y	N	N	Y
A	WJN39	N	81	Female	CVA	0	30/10/2013	Not Documented	69.0kg	30/08/2019	Within Care Plan	Y	Y	N	N
B	AS45	Y	75	Male	NND	3	12/01/2017	95.5kg	85.6kg	Not Documented	Separate file	N	Y	1	Y
B	CJ33	N	86	Female	CVA	1	08/08/2019	Not Documented	66.1kg	21/09/2019	Not located	N	N	N	Y
B	DG38	N	81	Male	CVA	2	11/04/2019	Not Documented	80.6kg	18/09/2019	Not located	N	N	N	N
B	ELF47	Y	72	Female	Dementia	0	08/04/2014	Not Documented	58.7kg	30/09/2019	Separate file	Y	N	N	N
B	EJWO34	Y	86	Male	Dementia	5	26/04/2016	79.5kg	74.7kg	21/05/2019	Separate file	N	Y	N	N
B	GHJ41	N	78	Male	Dementia	0	28/02/2017	93.8kg	94.4kg	08/09/2019	Not located	N	N	N	Y
B	MBM30	Y	89	Female	CVA	1	22/01/2019	92kg	92.6kg	Not Documented	Within Care Plan	N	Y	2	N
B	MJ39	Y	81	Female	CVA	6	27/11/2017	79.8kg	79.9kg	07/03/2018	Separate file	N	Y	N	N
B	SJD41	N	78	Male	CVA	0	12/03/2016	54.3kg	53.8kg	26/07/2019	Not located	N	N	N	N
B	SM29	Y	90	Female	Dementia	0	01/11/2019	42.4kg	37.9kg	05/11/2019	Separate file	N	N	1	N
B	TA40	Y	79	Female	Dementia	0	06/08/2012	95.3kg	64.2kg	Not Documented	Separate file	N	N	N	N

Appendix 4.2 Frequency Elements for 11 residents with

Safe Swallowing Category	Elements of safe swallowing	Match between how element is referenced in both the care plan and SLT	Element referenced in the SLT but not the care plan	Element referenced in the care plan but not the SLT	Element referenced in both the care plan and SLT but does not match	Element not referenced either in the care plan or SLT.
Food & Fluid Modification	Serving Size	0 (0.0%)	0 (0.0%)	5 (45%)	1 (9%)	5 (45%)
	Texture	7 (64%)	0 (0.0%)	3 (27%)	1 (9%)	0 (0.0%)
	Thickened Fluids	7 (64%)	1 (9%)	2 (18%)	1 (9%)	0 (0.0%)
	Drinking Vessel to Support	1 (9%)	2 (18%)	0 (0.0%)	0 (0.0%)	8 (73%)
	Specialist Equipment	0 (0.0%)	0 (0.0%)	2 (18%)	0 (0.0%)	9 (82%)
Swallowing Strategies	Prompting	2 (18%)	2 (18%)	3 (27%)	0 (0.0%)	4 (36%)
	Wait for throat clearing	0 (0.0%)	1 (9%)	2 (18%)	0 (0.0%)	8 (73%)
	Alternate food and drink	0 (0.0%)	1 (9%)	1 (9%)	0 (0.0%)	9 (82%)
	Posture	3 (27%)	1 (9%)	4 (36%)	0 (0.0%)	3 (27%)
	Alertness	2 (18%)	2 (18%)	2 (18%)	0 (0.0%)	4 (36%)
Swallowing Safety	Complete Swallow	1 (9%)	2 (18%)	3 (27%)	1 (9%)	4 (36%)
	Supervision, Assistance, Monitoring	1 (9%)	0 (0.0%)	7 (64%)	3 (27%)	0 (0.0%)
	Ensure Mouth Clear	0 (0.0%)	1 (9%)	0 (0.0%)	0 (0.0%)	10 (55%)

	Compliance Distributions: Food & Fluid modification	Number Observed		Observed Compliance		Observed Non-Compliance	
		Count	%	Count	%	Count	%
Serving Size	**Serving size** referenced the same in both the CP and the SLT	6	9.1%	3	50%	3	50%
	Serving size referenced in the SLT and not the CP	0	0.0%	0	0.0%	0	0.0%
	Serving size referenced in the CP and not the SLT	45	68.2%	38	84.4%	7	15.6%
	Serving size referenced in both the CP and SLT but described differently	3	4.5%	3	100%	0	0.0%
	Serving size not referenced in either the care plan or the SLT	12	18.2%	6	50%	6	50%
	Total:	66	100%	50	75.8%	16	24.2%
Texture	Match between how **texture** is referenced	36	54.5%	33	91.7%	3	8.3%
	Texture referenced in the SLT and not the CP	0	0.0%	0	0.0%	0	0.0%
	Texture referenced in the CP and not the SLT	23	34.8%	23	100%	0	0.0%
	Texture referenced in both the CP and SLT but described differently	7	10.6%	7	100%	0	0.0%
	Texture not referenced in either the care plan or the SLT	0	0.0%	0	0.0%	0	0.0%
	Total:	66	100%	63	95.5%	3	4.5%
Thickened Fluids	Match between how **thickened fluids** is referenced	29	43.9%	18	62.1%	11	37.9%
	Thickened fluids referenced in the SLT and not the CP	7	10.6%	7	100%	0	0.0%
	Thickened fluids referenced in the CP and not the SLT	5	7.6%	5	100%	0	0.0%
	Thickened fluids referenced in both the CP and SLT but described differently	19	28.8%	11	57.9%	8	42.1%
	Thickened fluids not referenced in either the care plan or the SLT	6	9.1%	4	66.7%	2	33.3%
	Total:	66	100%	45	68.2%	21	31.8%
Drinking Vessel to Support	Match between how **drinking vessel to support** is referenced	19	28.8%	19	100%	0	0.0%
	Drinking vessel to support referenced in the SLT and not the CP	10	15.2%	8	80%	2	20%
	Drinking vessel to support referenced in the CP and not the SLT	6	9.1%	0	0.0%	6	100%
	Drinking vessel to support referenced in both the CP and SLT but described differently	0	0.0%	0	0.0%	0	0.0%
	Drinking vessel to support not referenced in either the care plan or the SLT	31	47%	29	93.5%	2	6.5%
	Total:	66	100%	56	84.8%	10	15.2%

Appendix 4.3 Observations Distribution and Compliance Data

- Serving Size $x^2(3,66)= 9.311$, p= .025
- Texture x^2 (2,66)= 2.619 ,p= .270
- Thickened Fluids x^2 (4,66)= 7.033, p= .134
- Drinking Vessel to support x^2 (3,66)= 39.001, p<.001

	Compliance Distributions: Swallowing Strategies	Number Observed		Observed Compliance		Observed Non-Compliance	
		Count	%	Count	%	Count	%
Specialist Equipment	Match between how **specialist equipment** is referenced	0	0.0%	0	0.0%	0	0.0%
	Specialist Equipment referenced in the SLT and not the CP	0	0.0%	0	0.0%	0	0.0%
	Specialist Equipment referenced in the CP and not the SLT	2	3%	2	100%	0	0.0%
	Specialist Equipment referenced in both the CP and SLT but described differently	0	0.0%	0	0.0%	0	0.0%
	Specialist Equipment not referenced in either the care plan or the SLT	64	97%	61	95.3%	3	4.7%
	Total: P=.754 NON-SIGNIFICANT	66	100%	63	95.5%	3	4.5%
Prompting	Match between how **prompting** is referenced	9	13.6%	2	22.2%	7	77.8%
	Prompting referenced in the SLT and not the CP	15	22.7%	2	13.3%	13	86.7%
	Prompting referenced in the CP and not the SLT	20	30.3%	18	90%	2	10%
	Prompting referenced in both the CP and SLT but described differently	0	0.0%	0	0.0%	0	0.0%
	Prompting not referenced in either the care plan or the SLT	22	33.3%	12	54.5%	10	45.5%
	Total: P<0.001	66	100%	34	51.5%	32	48.5%
Wait for throat clearing	Match between how **wait for throat clearing** is referenced	0	0.0%	0	0.0%	0	0.0%
	Wait for throat clearing referenced in the SLT and not the CP	3	4.5%	2	66.7%	1	33.3%
	Wait for throat clearing referenced in the CP and not the SLT	26	39.4%	7	26.9%	19	73.1%
	Wait for throat clearing referenced in both the CP and SLT but described differently	0	0.0%	0	0.0%	0	0.0%
	Wait for throat clearing not referenced in either the care plan or the SLT	37	56.1%	30	81.1%	7	18.9%
	Total: P<0.001	66	100%	39	59.1%	27	40.9%
Alternate food & drink	Match between how **alternate food & drink** is referenced	0	0.0%	0	0.0%	0	0.0%
	Alternate food & drink referenced in the SLT and not the CP	3	4.5%	2	66.7%	1	33.3%
	Alternate food & drink referenced in the CP and not the SLT	25	37.9%	9	36%	16	64%
	Alternate food & drink referenced in both the CP and SLT but described differently	0	0.0%	0	0.0%	0	0.0%
	Alternate food & drink not referenced in either the care plan or the SLT	38	57.6%	27	71.1%	11	28.9%
	Total: P=0.021 SIGNIFICANT	66	100%	38	57.6%	28	42.4%

- Specialist Equipment x^2 (1,66)= .098, p= .754
- Prompting x^2 (3,66)= 23.788, p<.001
- Wait for throat clearing x^2 (2,66)= 18.602, p<.001
- Alternate food & drink x^2 (2,66)= 7.692, p= .021

	Compliance Distributions: Swallowing Safety	Number Observed		Observed Compliance		Observed Non-Compliance	
		Count	%	Count	%	Count	%
Posture	Match between how **posture** is referenced	3	4.5%	3	100%	0	0.0%
	Posture referenced in the SLT and not the CP	15	22.7%	15	100%	0	0.0%
	Posture referenced in the CP and not the SLT	39	59.1%	38	97.%	1	2.6%
	Posture referenced in both the CP and SLT but described differently	2	3%	1	50%	1	50%
	Posture not referenced in either the care plan or the SLT	7	10.6%	7	100%	0	0.0%
	Total:	66	100%	64	97.0%	2	3.0%
Alertness	Match between how **alertness** is referenced	13	19.7%	13	100%	0	0.0%
	Alertness referenced in the SLT and not the CP	16	24.2%	15	93.8%	1	6.3%
	Alertness referenced in the CP and not the SLT	13	19.7%	13	100%	0	0.0%
	Alertness referenced in both the CP and SLT but described differently	0	0.0%	0	0.0%	0	0.0%
	Alertness not referenced in either the care plan or the SLT	24	36.4%	21	87.5%	3	12.5%
	Total:	66	100%	62	93.9%	4	6.1%
Complete Swallow	Match between how **complete swallow** is referenced	2	3%	1	50%	1	50%
	Complete swallow referenced in the SLT and not the CP	13	19.7%	12	92.3%	1	7.7%
	Complete swallow referenced in the CP and not the SLT	24	36.4%	17	70.8%	7	29.2%
	Complete swallow referenced in both the CP and SLT but described differently	12	18.2%	0	0.0%	12	100%
	Complete swallow not referenced in either the care plan or the SLT	15	22.7%	9	60%	6	40%
	Total:	66	100%	39	59.1%	27	40.9%
Supervision, Assistance & Monitoring	Match between how **supervision, assistance & monitoring** is referenced	12	18.2%	1	8.3%	11	91.7%
	Supervision, assistance & monitoring referenced in the SLT and not the CP	0	0.0%	0	0.0%	0	0.0%
	Supervision, assistance & monitoring referenced in the CP and not the SLT	42	63.6%	41	97.6%	1	2.4%
	Supervision, assistance & monitoring referenced in both the CP and SLT but described differently	12	18.2%	2	16.7%	10	83.3%
	Supervision, assistance & monitoring not referenced in either the care plan or the SLT	0	0.0%	0	0.0%	0	0.0%
	Total:	66	100%	44	66.7%	22	33.3%
Ensure Mouth Clear at End of Meal	Match between how **ensure mouth clear at end of meal** is referenced	0	0.0%	0	0.0%	0	0.0%
	Ensure mouth clear at end of meal referenced in the SLT and not the CP	10	15.6%	3	30%	7	70%
	Ensure mouth clear at end of meal referenced in the CP and not the SLT	0	0.0%	0	0.0%	0	0.0%
	Ensure mouth clear at end of meal referenced in both the CP and SLT but described differently	0	0.0%	0	0.0%	0	0.0%
	Ensure mouth clear at end of meal not referenced in either the care plan or the SLT	54	84.4%	31	57.4%	23	42.6%
	Total:	64*	100%	34	53.1%	30	46.9%
	*2 counts of missing data						

- Posture x^2 (4,66)= 15.826 ,p= .003
- Alertness x^2 (3,66)= 3.426, p= .330
- Complete Swallow x^2 (4,66)= 24.709, p<.001
- Supervision, Assistance & Monitoring x^2 (2,66)= 49.982, p<.001
- Ensure Mouth clear at end of meal x^2 (1,64)= 2.545, p= .111

Appendix 4.4 Contextual Data

Resident	Date	Contextual data extracted
JB47	17/02/2020	HCA told what to do and remembers. Remembers training on fluids & consistency. Resident blind. Knew to stop if coughing but then offered juice "I watch throat to see if swallows" Sometimes holds food in mouth. HCA – permanent staff. only been employed at home 1 month. Mentions other aspects of mealtime that they are aware of e.g. different trays, trigger for food is upright – but resident was at 45 degrees! HCA left when resident still had food in mouth – concerns logged as a safeguarding issue Told what to do – used incorrect number of scoops
JB47	02/03/2020	HCA – permanent staff. Employed for 1 year. One-to-one feeding. HCA – good. Spoke to resident throughout meal and what they were doing (very useful as JB is blind) Mimicked swallowing as he was feeding JB. Absent maimedly as JB is blind.
JB47	03/03/2020	HCA – permanent staff. Employed for 9 months. Present Seated & standing. One-to- one feeding. Very quick but seemed safe. HCA was observant for coughing/ ensured swallow. Juice was served in a sippy cup. Tea was in open cup HCA would make a hand motion to encourage swallowing even though JB is blind.
JB47	05/03/2020	HCA – Permanent staff. Employed for 6 months. One-to-one feeding. All pre-prepared in kitchen downstairs Knew amount from head nurse (word of mouth). Was told minimum 1 scoop but can use more if feels not right consistency. Sometimes uses 2/3 scoops Juice served in beaker/sippy cup. JB struggled to suck from sippy cup, caused coughing. HCA saw this and stopped using straw section of sippy cup
JB47	09/03/2020	HCA – Permanent staff. Employed for 6 months. One-to-one feeding. Present. Meal was pre-prepared to correct consistency. Mixed soup with main to thicken it further. Juice served in sippy cup, but HCA did not use it.
JB47	11/03/2020	HCA – Permanent staff. Second day in the home. Given juice in beaker – no straw. Coughing episode when drank from beaker. Yes, encouraged verbally and with eye communication
JF22	28/02/2020	HCA – Permanent staff. Not documented length of employment.
JF22	03/03/2020	HCA – Permanent staff. Employed for 7 months.
KR36	09/03/2020	Observed shadowing session. Main HCA followed instructions, although she somewhat sped through feeding and fed resident with heaped servings which were too large for him to process properly. Also, her reasoning for using sippy cup is problematic as would be better to have an open cup. Shows how knowledge is disseminated/ how incorrect habits/feeding practises are adopted.
	09/03/2020	Permanent HCA. Employed for 6 months. AC shadowing session – new staff training asked questions.
	09/03/2020	Used a large tablespoon, HCA gave large mouthfuls to get in as much food as possible. Somewhat rushed. KR kept food in mouth.

	09/03/2020	Fish was shredded by HCA to make bite sized for feeding. Main mixed food all together for single consistency. Overall food was soft and fork mashable.
	09/03/2020	Given cup with beaker. HCA said that would ensure he would only have a little at time, to prevent him having large sips.
	09/03/2020	Asked to open mouth to ensure had swallowed. Although large mouthfuls, which made it hard for KR to swallow and ended up coughing.
MJ48	02/03/2020	Omitted as unable to question HCA as he needed to attend another feeding straight after meal. Meal was rushed so not enough time to interview him during the meal. Also, HCA stated he had bad news that day which was effecting his work/concentration. Not sure if it was a fair portrayal of his usual manner. Permanent HCA. Employed for 6 months Heaped tablespoons, too large for MJ. Problems closing cavity. Led to spillage, could not retain food in mouth properly. HCA stated that he was trying to get through meal as quickly as possible as had to feed another resident. All food pureed. Pre-prepared in downstairs kitchen. HCA mixed all the food together (soup and main) so that all one consistency. HCA Said soup was slightly too runny to serve on own. Sippy cup provided and used. MJ was positioned as upright as possible with a pillow to support her head. Feeding pace too fast to ensure this.
MJ48	05/03/2020	MJ vomited at end of meal. Meant feeding was longer than usual due to clean up. HCA completed a thorough clean up with gloves, disinfectant, wipes. HCA ensured MJs mouth was clear and vomiting had stopped before leaving room. Despite vomiting, researcher did not observe any oral care post meal or suggestion that another HCA would be coming to give oral care. MJ would open mouth when she wanted more food. At end, when she was finished, she closed her mouth. Food was not finished. HCA tried to get her to eat more after this point and after forcing MJ to have more, MJ vomited HCA – Permanent. Employed for 6 months Used large spoon. Doesn't use teaspoon as feels too small, MJ can handle larger serving. Mouthfuls too large for MJ, led to spillage and coughing. Mixed mash, puree and soup together to form paste with correct consistency. Soup too runny on own. Would spill out of mouth, MJ cannot close mouth properly. Did not finish food Juice served in beaker cup. HCA did not use beaker, took off lid to give juice. Ensured mouth was clear at end of meal. Important as MJ vomited at end
AS45	05/02/2020	6 HCA in total. 4 stood mostly at the front. Permanent HCAs: JS – Employed 3 years. 1 HCA- Employed 6 months. 1 HCA first day. Semi present moved around room Unknown data from other 3 HCAs.
AS45	11/02/2020	Other HCA gave 1-1 feeding unsure why AS &MJ unsupervised – male visitor? Or issue with SLT/ COP & Knowledge of it or if HCA in room does that count as supervision? Or is there a staffing issue?

		4 HCA – Permanent staff. Tea was served in a small glass but AS was not given a straw. AS ate at a slow pace. Once he ate too quickly which led him to start coughing. HCA nearby looked up at him but did nothing. He eventually stopped coughing and resumed his meal. Thickener is kept in a cupboard at the front of the dining room also kept in a locked cabinet it the residents room – if they need it. Various Permanent HCA. 6 on duty all at the front of the room. HCA cut chicken and vegetables into bite-sized pieces. Took a while for HCA to do this, around 15/20 minutes into meal.
AS45	18/02/2020	Soup was slightly thick consistency. Served juice with thickener. Thickener was added to juice at front of the room by HCA before being brought to the table. No straw observed. Juice served in small open cup. HCAs did not monitor AS. He coughed twice while eating/from food in mouth, but no HCA seemed to notice either time.
		Other staff had on PPE
EJOW34	19/08/2020	Various Permanent HCA with varying lengths of employment. Stood at the front of the room and moved in & out.
EJOW34	26/08/2020	Various Permanent HCA with varying lengths of employment. 4 HCA in dining room – moved around the room – semi present.
EJOW34	02/09/2020	Prepares thickener in the dining room. Food preprepared downstairs in the kitchen and served onto plates in the dining room. Various Permanent HCA with varying lengths of employment. Mostly stood at the front of the room and moved around
EJOW34	09/09/2020	Resident arrived early 4 HCA in room – Permanent staff various lengths of employment. HCA's stood at the front of the room and had their backs to residents and were talking. Stopped eventually to move around. Only checked when clearing tray which was 30 mins after resident had finished eating.
EJOW34	16/09/2020	No help or attention when cough/ choke 2x 4 HCA all permanent staff – unknown length of employment. Moved around between residents. Did not give resident one-to-one support.
EJOW34	23/09/2020	Did not eat watermelon. Unsupervised again – very frustrating. Various Permanent HCA with varying lengths of employment. 4 HCA in dining room mostly stood at the front moved around the room – semi present. Cut up omelette and left.
EJOW34	30/09/2020	Resident holds food in mouth and sometimes rushes – they should be supervised. Various Permanent HCA with varying lengths of employment. 4 HCA moved around the dining room – present/semi present. Cut up pork and left.
ELF47	06/03/2020	HCA does not mention IDDSI levels when prompted – further questioning HCA doesn't know them. Head nurse comes to check every now and then –

		HCA can ask questions . HCA is agency – just following instructions. Has not seen SLT/CPVery attentive but sometimes distracted wanted to chat Agency Staff – never worked at NH before (Care home B). Slow & attentive one-to-one feeding Tea thickened with 2 scoops of thickener HCA does not know IDDSI levels – only knows needs 2 scoops/ thick consistency – as told by head nurse. Head nurse comes in and out every now and then to check so able to ask questions if required. Tea served in open cup with no lid or straw. Tea fed to resident with teaspoon as thickened Requires full supervision as choking hazard. Needs HCA to ensure completely swallowed – HCA needs to be very observant. Fully assisted
ELF47	22/07/2020	HCA – Permanent. Employed for 14 months. One-to-one feeding. HCA attentive & slow feed. HCA very attentive – filled in necessary charts whilst feeding.
ELF47	05/08/2020	Interesting – feeding very good high standard of care – but many residents left unsupervised gives illusion of poor care ?impact on data.
ELF47	12/08/2020	HCA – Permanent staff. Seated in chair next to bed. Unknown length of employment. Gave slow attentive one-to-one feeding. HCA – Permanent staff. Employed for 18 months. Seated next to bed. Observant attentive. Good care. Slow feed. Didn't finish meal.
ELF47	19/08/2020	HCA – Permanent staff. Employed for 11 months. Seated next to bed in chair. Good feeding – verbal prompts and encouragement. Slow with pauses.
ELF47	26/08/2020	HCA – Permanent staff. Employed for 18 months.
ELF47	02/09/2020	HCA – Permanent staff. Employed for 18 months MH long term HCA – experienced in resident – slow and steady feeding – good. One-to-one feeding seated next to bed.
ELF47	09/09/2020	HCA – Permanent staff. Employed for 18 months. Slow with pauses/ breaks & encouragement. Seated in chair next to bed.
ELF47	16/09/2020	HCA – Permanent staff – good care slow & steady attentive – overheard his care when not being observed – still good/ reassuring & chatty with resident – seems to care.
ELF47	23/09/2020	HCA – Permanent staff. Employed for 18 months
ELF47	30/09/2020	Permanent staff. Seated next to bed.
MBM30	22/07/2020	HCA finished shift after meal finished and stated needed to get home, therefore was not available for an interview Due to social distancing rules, researcher could not question HCA during meal. Across hall in dining room, there were 8 HCA on shift – more than previously observed before lockdown. Lunchtime changed to 12.30pm. WIFI was down so could not double check electronic care plans, hard copy care plans were incomplete and disorganised – worse than prior to lockdown, some forms were missing that were previously available HCA- Permanent. Employed for 3 months. Dropped food off and cut up. Sat in front of TVR – to support all three residents in the room moved in and out.

		HCA when sat in front no paying attention to two residents, when move out of room completely unsupervised. None given. HCA was sitting at front of room and did not speak to MBM even when cutting up food. Was alert at beginning of meal. Fell asleep before finishing meal. HCA had left room by that stage. HCA eventually woke MBM when she took unfinished meal away HCA sat on other end of room and supervised 3 residents simultaneously. Her attention was not on MBM and she often left room completely. MBM was left sleeping for approximately 15 minutes. Ate independently, HCA cut meal at beginning HCA was too far away/absent too much to properly monitor chewing HCA fetched meal at end and MBM mouth was clear at that point but she was not there when MBM fell asleep. MBM potentially could have fallen asleep with food in her mouth.
MBM30	05/082020	HCA – Permanent staff. Unknown length of employment. Not present, JN dropped food and cut up omelette. Rarely in room. No supervision – MP came in and out to help supervise. HCA seems to be a mere "presence"
MBM30	12/08/2020	Resident self-fed – no supervision again Permanent HCA. Employed for 4 months. Dropped food and left room.
MBM30	19/08/2020	Permanent HCA. Employed for 4 months. Dropped food and left room. Chopped food, left stood at front and moved in and out. No Supervision – 4/6 in the dining room next door. No HCA to ask questions to
MBM30	26/08/2020	Various permanent HCAs, unknown length of employment. HCA dropped food, cut up and then stood at the front. Walked in and out of the room (mostly out)
MBM30	02/09/2020	Dropped food off. Cut up the left room – no supervision. No supervision – HCA left for approx. 45mins MP was just dropping off food
MBM30	09/09/2020	Fell asleep after meal - unsupervised SA dropped off food, cut up and left the room. Hardly ate, few mouthfuls – then fell asleep . Awoke when HCA fetched tray
MBM30	16/09/2020	HCA Permanent Staff. Not present. HCA dropped tray cut up food and left resident to self feed.
MBM30	23/09//2020	Not HCA – Permanent Staff. Not present. Dropped food tray off, cut up food and left
MBM30	30/09/2020	HCA came back and checked room (not resident specific) one/ two times during mealtime Permanent HCA. Not present
MJ39	05/02/2020	8.30am started 8.50-9.00 finished 9.20 – HCA fetched tray. MJ seated alone. At start two other residents at other tables, other residents soon left and MJ only person in dining room – MJ did start eating later though. Permanent staff – Employed for three years. JS- only HCA in dining room. Not observed to rush meal but would take large mouthfuls. This led to spillage/regurgitation

		Given tea with 2 scoops thickener. Prepared by HCA in dining room. HCA is following care plan, not SLT guidelines HCA reported normally encourages resident to eat in the dining room – more social and increases mental health. MJ seated in far back corner table by window alone – few residents dotted around the room – many eat alone – quite gloomy feel.
MJ39	07/02/2020	Unsupervised. As MJ was unsupervised for most of the meal took longer to finish food (approx. 1 hour). (meal schedule plum- from HCA) lunch served less than one hour after finishing breakfast Permanent staff 4 HCA on duty in the dining room. Offered a plum by HCA (fruit with stone in specifically mentioned as to be avoided). HCA did not know care plan/ had not seen SLT guidelines. Various Permanent HCA 5/6 HCA in dining room moved around. MJ sat with AS at back table in Dining Room – didn't interact/ talk much but MJ would help AS – dropped fork/ moved hust plate. Guard closer to him – out of reach and his hands shook a lot. Two HCA helping other residents with 1-1 feeding. One HCA checked on MJ Had to wait a while for food to be cut up and for thickener.
MJ39	11/02/2020	MJ not supervised. Did not take enough pause between mouthfuls. Took new mouthful while food still in her mouth, led to leakage and occasional coughing/spluttering MJ not supervised. Although when she occasionally coughed, one of the HCA would look up at MJ and twice came and stood nearby MJ. But obviously felt the coughing did not warrant more attention. MJ not supervised. None required, can feed herself.
MJ39	13/02/2020	Permanent staff Employed for 3 years. Head Nurse was on duty HCA's were busy dealing with residents and then cleaning up.
MJ39	18/02/2020	After lunch had finished HCA's needed to leave to complete other duties, therefore was unable to question any HCA staff on duty. MJ was also unsupervised so not necessarily necessary. Distracted – left MJ unsupervised.
MJ39	19/02/2020	Permanent staff – employed long term. 4 HCA moved in and out of the dining room – mostly stood by chatting – often had backs to residents and talked. MJ was not supervised by any HCA. This was mostly due to presence of sister. Sister had no clue about SLT guidelines (in fact didn't even know her sister had been seen by the SLT, reported to JVB that she had been asking Head Nurse if her sister would be seen by SLT as history of swallowing problems). Sister had no clue on how to help MJ, does not know SLT recommendations so couldn't follow them or advice MJ on eating (i.e. verbal prompts to slow down, smaller mouthfuls, wait to swallow, etc.) and didn't know what to do when MJ started coughing occasionally. However, her presence did have a calming effect and MJ seemed happy and ate slower than normal. Although still had difficulty swallowing before next mouthful/too large mouthfuls, which did cause her to cough occasionally. 4 HCA (all long term) moved around dining room. Busy with other residents therefore MJ unsupervised. MJ was sat with their sister. Reliant on sister to care/ help MJ but she doesn't know how to help!

MJ39	04/03/2020	Sister had given her hard boiled sweets earlier, which caused her to cough Schnitzel cut up into pieces by HCA but were not cut small enough. HCA had to come back and cut them up into smaller pieces. After that they were a more manageable bite size. Given large desert spoon to eat soup, MJ ended up taking too large mouthfuls. HCA [NAME]. Whilst did not support this resident, asked to complete a couple of questions while she was tidying up. After resident had left the dining room, the HCA showed me a small cupboard where resident thickener is stored. She showed me the thickener prescribed for MJ and demonstrated the quantity (2 level scoop) that is added to MJ's tea. 11 residents in lounge. One resident ½ cup tea with thickener . One resident with cup of milk No other residents with drinks Trolly with jug of juice and jug of water No HCA's present. Two of the HCAs are registered nurses both are sitting exams to be able to practice in the UK 1 Registered nurse with 5 HCAs. Only HCA staff present in dining area. No supervision. HCAs around but attending to other residents. C5 HCA on duty no HCA directly supporting MJ Not observed to be rushing but was placing food in mouth without swallowing what was already in there. Menu change – all mains served with sauces – good (since COVID)
MJ39	02/09/2020	Various HCA – Permanent . HCA dropped off food. Left unsupervised. 4 HCAs present – not supervised MJ. New HCAs present (haven't seen them before)
MJ39	09/09/2020	Unsupervised Various HCAs. HCA dropped food and left. 4 HCA present. Permanent.
MJ39	16/09/2020	Various permanent HCA. 4 HCA – None supervised MJ. 1 dropped food – came back to cut up – otherwise unsupervised
MJ39	23/09/2020	Various 4/6 HCA around. None supervised MJ. Walked around checking residents two stayed at the front.
MJ39	30/09/2020	4/6 HCA moved around MJ unsupervised. Permanent HCA
SM29	06/03/2020	KJ busy doing rounds – dropping food & doing supportive feeding. Resident very disengaged – non responsive. Senior HCA – Permanent. Employed for 21 months. HCA dropped off food and left – did check on SM at the end to remove tray.
SM29	22/07/2020	Supervision issue lack of supervision therefore cannot judge care given. HCA check in on SM in between courses and served each separately- tricky as means multiple feeds. HCA – Permanent. Employed for 14 months. Dropped food and left.
TA40	22/07/2020	KJ very good – specialist feeding TA in bed asleep when HCA arrived woke resident and repositioned resident for feeding. Senior HCA – Permanent. Employed for 23 Months. Seated by bed.
TA40	05/08/2020	Slow, observant attentive feeding. Radio was playing – good for some entertainment but a bit loud. KJ senior HCA. HCA attentive and slow KJ sat in chair next to bed. TA in bed asleep HCA woke up resident and repositioned.
TA40	12/08/2020	HCA (haven't met before). Employed for 14 months

TA40	19/08/2020	KJ – good verbal encouragement 1-1 feeding Senior HCA. Employed for 23 months. Seated 1-1 feeding.
TA40	26/08/2020	Permanent HCA. Seated next to bed.
TA40	02/09/2020	MP HCA – Observed before consistent with care when doing one-to-one feeding.
TA40	09/09/2020	Slow attentive feed very good steady pace. Senior HCA. 23 Months. HCA Seated by bed in chair.
TA40	16/09/2020	Couldn't find change in care plan – but nurse confirmed change in number of scoops of thickener from 1 to 2 due to coughing and swallowing issues worsening Senior HCA permanent staff.
TA40	23/09/2020	One-to-One feeding very good. Senior HCA permanent staff.
TA40	30/09/2020	Kitchen manager has been making changes to food – updated menu & added sauces Senior HCA permanent staff. Good steady slow pace

Appendix 4.5 Variation in compliance associated with number of HCA present

Food & Fluid Modification	Staff Present	*Observed Compliance*		*Observed Non-Compliance*	
		Count	%	Count	%
Serving Size	Single HCA	40	81.6%	9	18.4%
	Multiple HCA	10	58.8%	7	41.2%
Texture	Single HCA	48	98%	1	2%
	Multiple HCA	15	88.2%	2	11.8%
Thickened Fluids	Single HCA	30	61.2%	19	38.8%
	Multiple HCA	15	88.2%	2	11.8%
Drinking Vessel to Support	Single HCA	42	85.7%	7	14.3%
	Multiple HCA	14	82.4%	3	17.6%

- Serving Size x^2 (1,66)= 3.575, p= .059
- Texture- x^2 (1,66)=2.750, p= .097
- Thickened Fluids x^2 (1,66)= 4.245,p= .039
- Drinking Vessel to support x^2 (1,66)= .111, p= .739

Swallowing Strategies	Staff Present	*Observed Compliance*		*Observed Non-Compliance*	
		Count	%	Count	%
Specialist Equipment	Single HCA	48	98%	1	2%
	Multiple HCA	15	88.2%	2	11.8%
Prompting	Single HCA	32	65.3%	17	34.7%
	Multiple HCA	2	11.8%	15	88.2%
Wait for throat clearing	Single HCA	36	73.5%	13	26.5%
	Multiple HCA	3	17.6%	14	82.4%
Alternate food and drink	Single HCA	29	59.2%	20	40.8%
	Multiple HCA	9	52.9%	8	47.1%

- Specialist Equipment x^2 (1,66)=2.750, p= .097
- Prompting x^2 (1,66)= 14.486, p<.001
- Wait for throat clearing x^2 (1,66)= 16.270, p<.001
- Alternate food & drink x^2 (1,66)= .201, p=.654

Swallowing Safety	Staff Present	*Observed Compliance*		*Observed Non-Compliance*	
		Count	%	Count	%
Posture	Single HCA	47	95.9%	2	4.1%
	Multiple HCA	17	100%	0	0.0%
Alertness	Single HCA	46	93.9%	3	6.1%
	Multiple HCA	16	94.1%	1	5.9%
Complete Swallow	Single HCA	35	71.4%	14	28.6%
	Multiple HCA	4	23.5%	13	76.5%
Supervision, Assistance,	Single HCA	42	85.7%	7	14.3%
Monitoring	Multiple HCA	2	11.8%	15	88.2%
Ensure Mouth Clear	Single HCA	29	61.7%	18	38.3%
	Multiple HCA	5	29.4%	12	70.6%

- Posture x^2 (1,66)=.716, p=.398
- Alertness x^2 (1,66)=.001, p= .971
- Complete Swallow x^2 (1,66)=,11.979, p<.001
- Supervision, Assistance & Monitoring x^2 (1,66)= 31.059, p<.001
- Ensure Mouth clear at end of meal x^2 (1,64)= 5.227, p= .022

Appendix 4.6 Variation in compliance related to documentation in CP and/or SLT

Analysis Three: Referenced vs not Referenced.

	Food & Fluid Modifications	Number Observed		Observed Compliance		Observed Non-Compliance	
		Count	%	Count	%	Count	%
Serving Size	**Referenced** in residents written guidance	54	81.8%	44	81.5%	10	18.5%
	Not Referenced in residents written guidance	12	18.2%	6	50%	6	50%
	Total	66	100%	50	75.8%	16	24.2%
Texture	**Referenced** in residents written guidance	66	100%	63	95.5%	3	4.5%
	Not Referenced in residents written guidance	0	0.0%	0	0.0%	0	0.0%
	Total	66	100%	63	95.5%	3	4.5%
Thickened Fluids	**Referenced** in residents written guidance	60	90.9%	41	68.3%	19	31.7%
	Not Referenced in residents written guidance	6	9.1%	4	66.7%	2	33.3%
	Total	66	100%	45	68.2%	21	31.8%
Drinking Vessel to Support	**Referenced** in residents written guidance	35	53%	27	77.1%	8	22.9%
	Not Referenced in residents written guidance	31	47%	29	93.5%	2	6.5%
	Total	66	100%	56	84.8%	10	15.2%

- Serving Size x^2 (1,66)= 5.298, p= .021
- Texture- Not calculated – Element is a constant
- Thickened Fluids x^2 (1,66)= .007,p= .933
- Drinking Vessel to support x^2 (1,66)= 3.442,p= .064

	Swallowing Strategies	Number Observed		Observed Compliance		Observed Non-Compliance	
		Count	%	Count	%	Count	%
Specialist Equipment	**Referenced** in residents written guidance	2	3%	2	100%	0	0.0%
	Not Referenced in residents written guidance	64	97%	61	95.3%	3	4.7%
	Total	66	100%	63	95.5%	3	4.5%
Prompting	**Referenced** in residents written guidance	44	66.7%	22	50%	22	50%
	Not Referenced in residents written guidance	22	33.3%	12	54.5%	10	45.5%
	Total	66	100%	34	51.5%	32	48.5%
Wait for throat clearing	**Referenced** in residents written guidance	29	43.9%	9	31%	20	69%
	Not Referenced in residents written guidance	37	56.1%	30	81.1%	7	18.9%
	Total	66	100%	39	59.1%	27	40.9%
Alternate food & drink	**Referenced** in residents written guidance	28	42.4%	11	39.3%	17	60.7%
	Not Referenced in residents written guidance	38	57.6%	27	71.1%	11	28.9%
	Total	66	100%	38	57.6%	28	42.4%

- Specialist Equipment x^2 (1,66)= .098, p= .754
- Prompting x^2 (1,66)= .121, p= .728
- Wait for throat clearing x^2 (1,66)= 16.845, p<.001
- Alternate food & drink x^2 (1,66)= 6.660, p= .010

	Compliance Distributions: Swallowing Strategies	Number Observed		Observed Compliance		Observed Non-Compliance	
		Count	%	Count	%	Count	%
Posture	**Referenced** in residents written guidance	59	89.4%	57	96.3%	2	3.4%
	Not Referenced in residents written guidance	7	10.6%	7	100%	0	0.0%
	Total	66	100%	64	97%	2	3%
Alertness	**Referenced** in residents written guidance	42	63.6%	41	97.6%	1	2.4%
	Not Referenced in residents written guidance	24	36.4%	21	87.5%	3	12.5%
	Total	66	100%	62	93.9%	4	6.1%
Complete Swallow	**Referenced** in residents written guidance	51	77.3%	30	58.8%	21	21.2%
	Not Referenced in residents written guidance	15	22.7%	9	60%	6	40%
	Total	66	100%	39	59.1&	27	40.9&
Supervision, Assistance & Monitoring	**Referenced** in residents written guidance	66	100%	44	66.7%	22	33.3%
	Not Referenced in residents written guidance	0	0.0%	0	0.0%	0	0.0%
	Total	66	100%	44	66.7%	22	33.3%
Ensure Mouth Clear at End of Meal	**Referenced** in residents written guidance	10	15.6%	3	30%	7	7%
	Not Referenced in residents written guidance	54	84.4%	31	57.4%	23	42.6%
	Total	64	100%	34	53.1%	30	46.9%

Analysis Three – Statistical Justifications

- Posture x^2 (1,66)= .245,p=.621
- Alertness x^2 (1,66)= 2.747,p= .097
- Complete Swallow x^2 (1,66)= .007,p=.935
- Supervision, Assistance & Monitoring Not calculated – Element is a constant
- Ensure Mouth clear at end of meal x^2 (1,64)= 2.545, p= .111

	Compliance Distributions: Food & Fluid modification	Number Observed		Observed Compliance		Observed Non-Compliance	
		Count	%	Count	%	Count	%
Serving Size	**Serving size** referenced the same in both the CP and the SLT	6	9.1%	3	50%	3	50%
	Serving size referenced in the SLT and not the CP	0	0.0%	0	0.0%	0	0.0%
	Serving size referenced in the CP and not the SLT	45	68.2%	38	84.4%	7	15.6%
	Serving size referenced in both the CP and SLT but described differently	3	4.5%	3	100%	0	0.0%
	Serving size not referenced in either the care plan or the SLT	12	18.2%	6	50%	6	50%
	Total:	66	100%	50	75.8%	16	24.2%
Texture	Match between how **texture** is referenced	36	54.5%	33	91.7%	3	8.3%
	Texture referenced in the SLT and not the CP	0	0.0%	0	0.0%	0	0.0%
	Texture referenced in the CP and not the SLT	23	34.8%	23	100%	0	0.0%
	Texture referenced in both the CP and SLT but described differently	7	10.6%	7	100%	0	0.0%
	Texture not referenced in either the care plan or the SLT	0	0.0%	0	0.0%	0	0.0%
	Total:	66	100%	63	95.5%	3	4.5%
Thickened Fluids	Match between how **thickened fluids** is referenced	29	43.9%	18	62.1%	11	37.9%
	Thickened fluids referenced in the SLT and not the CP	7	10.6%	7	100%	0	0.0%
	Thickened fluids referenced in the CP and not the SLT	5	7.6%	5	100%	0	0.0%
	Thickened fluids referenced in both the CP and SLT but described differently	19	28.8%	11	57.9%	8	42.1%
	Thickened fluids not referenced in either the care plan or the SLT	6	9.1%	4	66.7%	2	33.3%
	Total:	66	100%	45	68.2%	21	31.8%
Drinking Vessel to Support	Match between how **drinking vessel to support** is referenced	19	28.8%	19	100%	0	0.0%
	Drinking vessel to support referenced in the SLT and not the CP	10	15.2%	8	80%	2	20%
	Drinking vessel to support referenced in the CP and not the SLT	6	9.1%	0	0.0%	6	100%
	Drinking vessel to support referenced in both the CP and SLT but described differently	0	0.0%	0	0.0%	0	0.0%
	Drinking vessel to support not referenced in either the care plan or the SLT	31	47%	29	93.5%	2	6.5%
	Total:	66	100%	56	84.8%	10	15.2%

- Serving Size $x^2(3,66)= 9.311$, p= .025
- Texture x^2 (2,66)= 2.619 ,p= .270
- Thickened Fluids x^2 (4,66)= 7.033, p= .134
- Drinking Vessel to support x^2 (3,66)= 39.001, p<.001

	Compliance Distributions: Swallowing Strategies	Number Observed		Observed Compliance		Observed Non-Compliance	
		Count	%	Count	%	Count	%
Specialist Equipment	Match between how **specialist equipment** is referenced	0	0.0%	0	0.0%	0	0.0%
	Specialist Equipment referenced in the SLT and not the CP	0	0.0%	0	0.0%	0	0.0%
	Specialist Equipment referenced in the CP and not the SLT	2	3%	2	100%	0	0.0%
	Specialist Equipment referenced in both the CP and SLT but described differently	0	0.0%	0	0.0%	0	0.0%
	Specialist Equipment not referenced in either the care plan or the SLT	64	97%	61	95.3%	3	4.7%
	Total: P=.754 NON-SIGNIFICANT	66	100%	63	95.5%	3	4.5%
Prompting	Match between how **prompting** is referenced	9	13.6%	2	22.2%	7	77.8%
	Prompting referenced in the SLT and not the CP	15	22.7%	2	13.3%	13	86.7%
	Prompting referenced in the CP and not the SLT	20	30.3%	18	90%	2	10%
	Prompting referenced in both the CP and SLT but described differently	0	0.0%	0	0.0%	0	0.0%
	Prompting not referenced in either the care plan or the SLT	22	33.3%	12	54.5%	10	45.5%
	Total: P<0.001	66	100%	34	51.5%	32	48.5%
Wait for throat clearing	Match between how **wait for throat clearing** is referenced	0	0.0%	0	0.0%	0	0.0%
	Wait for throat clearing referenced in the SLT and not the CP	3	4.5%	2	66.7%	1	33.3%
	Wait for throat clearing referenced in the CP and not the SLT	26	39.4%	7	26.9%	19	73.1%
	Wait for throat clearing referenced in both the CP and SLT but described differently	0	0.0%	0	0.0%	0	0.0%
	Wait for throat clearing not referenced in either the care plan or the SLT	37	56.1%	30	81.1%	7	18.9%
	Total: P<0.001	66	100%	39	59.1%	27	40.9%
Alternate food & drink	Match between how **alternate food & drink** is referenced	0	0.0%	0	0.0%	0	0.0%
	Alternate food & drink referenced in the SLT and not the CP	3	4.5%	2	66.7%	1	33.3%
	Alternate food & drink referenced in the CP and not the SLT	25	37.9%	9	36%	16	64%
	Alternate food & drink referenced in both the CP and SLT but described differently	0	0.0%	0	0.0%	0	0.0%
	Alternate food & drink not referenced in either the care plan or the SLT	38	57.6%	27	71.1%	11	28.9%
	Total: P=0.021 SIGNIFICANT	66	100%	38	57.6%	28	42.4%

- Specialist Equipment x^2 (1,66)= .098, p= .754
- Prompting x^2 (3,66)= 23.788, p<.001
- Wait for throat clearing x^2 (2,66)= 18.602, p<.001
- Alternate food & drink x^2 (2,66)= 7.692, p= .021

Compliance Distributions: Swallowing Safety

		Number Observed		Observed Compliance		Observed Non-Compliance	
		Count	%	Count	%	Count	%
Posture	Match between how **posture** is referenced	3	4.5%	3	100%	0	0.0%
	Posture referenced in the SLT and not the CP	15	22.7%	15	100%	0	0.0%
	Posture referenced in the CP and not the SLT	39	59.1%	38	97.%	1	2.6%
	Posture referenced in both the CP and SLT but described differently	2	3%	1	50%	1	50%
	Posture not referenced in either the care plan or the SLT	7	10.6%	7	100%	0	0.0%
	Total:	66	100%	64	97.0%	2	3.0%
Alertness	Match between how **alertness** is referenced	13	19.7%	13	100%	0	0.0%
	Alertness referenced in the SLT and not the CP	16	24.2%	15	93.8%	1	6.3%
	Alertness referenced in the CP and not the SLT	13	19.7%	13	100%	0	0.0%
	Alertness referenced in both the CP and SLT but described differently	0	0.0%	0	0.0%	0	0.0%
	Alertness not referenced in either the care plan or the SLT	24	36.4%	21	87.5%	3	12.5%
	Total:	66	100%	62	93.9%	4	6.1%
Complete Swallow	Match between how **complete swallow** is referenced	2	3%	1	50%	1	50%
	Complete swallow referenced in the SLT and not the CP	13	19.7%	12	92.3%	1	7.7%
	Complete swallow referenced in the CP and not the SLT	24	36.4%	17	70.8%	7	29.2%
	Complete swallow referenced in both the CP and SLT but described differently	12	18.2%	0	0.0%	12	100%
	Complete swallow not referenced in either the care plan or the SLT	15	22.7%	9	60%	6	40%
	Total:	66	100%	39	59.1%	27	40.9%
Supervision, Assistance & Monitoring	Match between how **supervision, assistance & monitoring** is referenced	12	18.2%	1	8.3%	11	91.7%
	Supervision, assistance & monitoring referenced in the SLT and not the CP	0	0.0%	0	0.0%	0	0.0%
	Supervision, assistance & monitoring referenced in the CP and not the SLT	42	63.6%	41	97.6%	1	2.4%
	Supervision, assistance & monitoring referenced in both the CP and SLT but described differently	12	18.2%	2	16.7%	10	83.3%
	Supervision, assistance & monitoring not referenced in either the care plan or the SLT	0	0.0%	0	0.0%	0	0.0%
	Total:	66	100%	44	66.7%	22	33.3%
Ensure Mouth Clear at End of Meal	Match between how **ensure mouth clear at end of meal** is referenced	0	0.0%	0	0.0%	0	0.0%
	Ensure mouth clear at end of meal referenced in the SLT and not the CP	10	15.6%	3	30%	7	70%
	Ensure mouth clear at end of meal referenced in the CP and not the SLT	0	0.0%	0	0.0%	0	0.0%
	Ensure mouth clear at end of meal referenced in both the CP and SLT but described differently	0	0.0%	0	0.0%	0	0.0%
	Ensure mouth clear at end of meal not referenced in either the care plan or the SLT	54	84.4%	31	57.4%	23	42.6%
	Total:	64*	100%	34	53.1%	30	46.9%

*2 counts of missing data

- Posture x^2 (4,66)= 15.826 ,p= .003
- Alertness x^2 (3,66)= 3.426, p= .330
- Complete Swallow x^2 (4,66)= 24.709, p<.001
- Supervision, Assistance & Monitoring x^2 (2,66)= 49.982, p<.001
- Ensure Mouth clear at end of meal x^2 (1,64)= 2.545, p= .11

Appendix 4.7 HCA knowledge about assisting residents with dysphagia to eat and drink safely

Resident	Date	Mealtime	HCA	Code	Have you received any formal training
JB47	17.02.20	Lunch	Permanent HCA		Not on eating – thickening fluids though. Said good general training in role here
JB47	03.03.20	Breakfast	Permanent HCA	PN	No formal training but did receive workplace training and various courses at previous job as an HCA and this job.
JB47	05.03.20	Lunch	Permanent HCA	NN	Received workplace training, induction training offered through care home. No formal training.
JB47	11.03.20	Lunch	Permanent HCA	PN	Yes in this home.
JF22	03.03.20	Dinner	Permanent HCA	PD	No formal training. This was first position as an HCA, worked in sales before. Has received on the job training, induction training and training in various areas, such as health and safety, infection control, etc.
KR36	09.03.20	Lunch	Permanent HCA	SA & AC	No formal training, but received training from care home when started and at certain intervals. She is about to do some infection control training.
MJ48	05.03.20	Dinner	Permanent HCA	SA	No. But received induction training (3 – 4 weeks) and special training on varied topics, i.e. feeding, IDDSI levels. Training must be renewed as time goes on.

Resident	Date	Mealtime	HCA	Code	Have you received any formal training
AS45	05.20.20	Lunch	Permanent HCA		Only training from care home
AS45	19.02.20	Lunch	Permanent HCA		No – but had induction training
ELF47	06.03.20	Breakfast	Agency		Completed formal training course for care (8 months) in caring. Also has various first-hand experience working/feeding patients with dysphagia. Training seemingly makes big difference for care over and above experience.
ELF47	22.07.20	Lunch	Permanent HCA	KN	No, only training on the job. Has received various training courses through working as an HCA.
MBM30	12.08.20	Lunch	Permanent HCA		None, only what has been offered to her through induction/workplace training.
MJ39	05.02.20	Breakfast	Permanent HCA		HCA has a variety of training (from employers, courses but not university). No training on dysphagia care but on various topics, for example health and safety, infection control, etc.
MJ39	07.02.20	Lunch	Permanent HCA		No formal training
MJ39	11.02.20	Lunch	Permanent HCA		HCA has had work place training but no dysphagia training/IDDSI levels training. Head nurse has undergone formal dysphagia training but not present in dining hall. Although she is an important resource available to HCA.
MJ39	13.02.20	Lunch	Permanent HCA		No training
TA40	05.08.20	Lunch	Permanent Senior HCA	KJ	Yes, he went to college prior to starting job. He did his 200hours of training at Nazareth and then just stayed on working there.
TA40	12.08.20	Lunch	Permanent HCA	WP	She received training from the care home when she started and then two other courses since. A lot of her work place training surrounded safety of residents.

Resident	Date	Mealtime	HCA	Code	Do you have any training/ experience with Dysphagia care?
JB47	17.02.20	Lunch	Permanent HCA		No.
JB47	03.03.20	Breakfast	Permanent HCA	PN	Reported had taken a course on eating and drinking safety (does not remember what it was specifically but recalls something) at previous care home. Also from feeding residents with swallowing issues.
JB47	05.03.20	Lunch	Permanent HCA	NN	No formal training but experience from working with patients at care home, from feeding patients knows how to recognise swallowing problems and learnt to be patient and attentive.
JB47	11.03.20	Lunch	Permanent HCA	PN	Second day in this home but have worked in other homes.
JF22	03.03.20	Dinner	Permanent HCA	PD	No training and only experience is from working with residents at care home.
KR36	09.03.20	Lunch	Permanent HCA	SA & AC	No formal training but experience from working at care home for how to care for/feed residents with swallowing difficulties. Now she knows issues can
MJ48	05.03.20	Dinner	Permanent HCA	SA	First care job. Knowledge of dysphagia care is from on the job experience. She got to know the residents, read up on them and found out how to best treat them/give dysphagia care that way.

Resident	Date	Mealtime	HCA	Code	Do you have any training/ experience with Dysphagia care?
AS45	05.20.20	Lunch	Permanent HCA		Experience working with/ feeding resident
AS45	19.02.20	Lunch	Permanent HCA		Experience with feeding resident
ELF47	06.03.20	Breakfast	Agency		Completed formal training course for care (8 months) in caring. Also has various first-hand experience working/feeding patients with dysphagia. Training seemingly makes big difference for care over and above experience.
ELF47	22.07.20	Lunch	Permanent HCA	KN	Yes, on the job experience. Doing one-on-one feedings with residents. Feels he knows what to look for i.e. when a resident starts coughing he slows down the feeding/drinking and waits for them to stop.
MBM30	12.08.20	Lunch	Permanent HCA		Only work place experience, interacting with residents and helping to feed residents with swallowing difficulties.
MJ39	05.02.20	Breakfast	Permanent HCA		Experience is from on the job. Seems to have a good knowledge of the resident. Spoke about her likes/dislikes.
MJ39	07.02.20	Lunch	Permanent HCA		No training but experience working with residents with dysphagia
MJ39	11.02.20	Lunch	Permanent HCA		No formal training. But knows how to spot a resident who is having difficulty swallowing and knows generally how to help. This knowledge developed through experience.
MJ39	13.02.20	Lunch	Permanent HCA		On the job experience. Good knowledge of resident.
TA40	05.08.20	Lunch	Permanent Senior HCA	KJ	Yes, through his studies and also through working with patients with dysphagia.
TA40	12.08.20	Lunch	Permanent HCA	WP	Only through working one-on-one with residents.

Resident	Date	Mealtime	HCA	Code	Did you receive any guidance in feeding this resident?
JB47	17.02.20	Lunch	Permanent HCA		Told what to do
JB47	03.03.20	Breakfast	Permanent HCA	PN	Spoke to head nurse and read care plan, but also from feeding him before.
JB47	05.03.20	Lunch	Permanent HCA	NN	Yes, from the head nurse but also has asked other HCA who have dealt with JB before for advice.
JB47	11.03.20	Lunch	Permanent HCA	PN	Yes at handover. They said be careful and give him alternate drinks/food.
JF22	03.03.20	Dinner	Permanent HCA	PD	Yes, SLT guidelines are on wall and received information from head nurse.
KR36	09.03.20	Lunch	Permanent HCA	SA & AC	Yes, received word of mouth instructions from head nurse and also gets told any new/important information when handover happens. Handover is mostly word of mouth but also sometimes written instructions.
MJ48	05.03.20	Dinner	Permanent HCA	SA	Yes, through word of mouth. Also through general experience/common sense approach from being observant, for example if thickener in room, resident obviously uses thickener; if a red tray is used, resident is obviously high risk. Read up on resident.

Resident	Date	Mealtime	HCA	Code	Did you receive any guidance in feeding this resident?
AS45	05.20.20	Lunch	Permanent HCA		From head nurse and other staff - there is always someone to ask
AS45	19.02.20	Lunch	Permanent HCA		Word of Mouth
ELF47	06.03.20	Breakfast	Agency HCA		First time with resident – received informal instruction from head nurse.
ELF47	22.07.20	Lunch	Permanent HCA	KN	From the head nurse and also from looking in the care plan.
MBM30	12.08.20	Lunch	Permanent HCA		Word of mouth, handover instructions from head nurse and other staff on duty. Senior HCA has given her direct guidance as well.
MJ39	05.02.20	Breakfast	Permanent HCA		Yes, received instructions from the head nurse. Prefers to take instruction from head nurse.
MJ39	07.02.20	Lunch	Permanent HCA		Reported given some instructions by head nurse and family but mostly used common sense and previous experience
MJ39	11.02.20	Lunch	Permanent HCA		Yes, through word of mouth.
MJ39	13.02.20	Lunch	Permanent HCA		Head Nurse
TA40	05.08.20	Lunch	Permanent Senior HCA	KJ	Yes, he has previously seen her care plan and any updates are given through word of mouth.
TA40	12.08.20	Lunch	Permanent HCA	WP	Yes, from care plan, from senior HCA and the head nurse on duty. If there is any new information or problem, she gets told at handover/at the beginning of her shift.

Resident	Date	Mealtime	HCA	Code	Have you seen this residents SLT guidelines?
JB47	17.02.20	Lunch	Permanent HCA		Not Asked
JB47	03.03.20	Breakfast	Permanent HCA	PN	No.
JB47	05.03.20	Lunch	Permanent HCA	NN	No.
JB47	11.03.20	Lunch	Permanent HCA	PN	No.
JF22	03.03.20	Dinner	Permanent HCA	PD	Yes, there is a copy on the wall.
KR36	09.03.20	Lunch	Permanent HCA	SA & AC	No.
MJ48	05.03.20	Dinner	Permanent HCA	SA	No.

Resident	Date	Mealtime	HCA	Code	Have you seen this residents SLT guidelines?
AS45	05.20.20	Lunch	Permanent HCA		Doesn't Know
AS45	19.02.20	Lunch	Permanent HCA		Yes.
ELF47	06.03.20	Breakfast	Agency HCA		No.
ELF47	22.07.20	Lunch	Permanent HCA	KN	No.
MBM30	12.08.20	Lunch	Permanent HCA		No.
MJ39	05.02.20	Breakfast	Permanent HCA		No.
MJ39	07.02.20	Lunch	Permanent HCA		Reported has not seen the SLT guidelines
MJ39	11.02.20	Lunch	Permanent HCA		No.
MJ39	13.02.20	Lunch	Permanent HCA		No.
TA40	05.08.20	Lunch	Permanent Senior HCA	KJ	Yes
TA40	12.08.20	Lunch	Permanent HCA	WP	No.

Resident	Date	Mealtime	HCA	Code	Have you seen the residents care plan?
JB47	17.02.20	Lunch	Permanent HCA		Not Asked
JB47	03.03.20	Breakfast	Permanent HCA	PN	Yes.
JB47	05.03.20	Lunch	Permanent HCA	NN	Yes, previously. But relies more on word of mouth information, particularly directions from head nurse. Handover is also important. “Directions for care change so speaking and listening important”.
JB47	11.03.20	Lunch	Permanent HCA	PN	Yes she has checked his care plan
JF22	03.03.20	Dinner	Permanent HCA	PD	Yes, she has seen it on the computer.
KR36	09.03.20	Lunch	Permanent HCA	SA & AC	Yes.
MJ48	05.03.20	Dinner	Permanent HCA	SA	Yes.

Resident	Date	Mealtime	HCA	Code	Have you seen the residents care plan?
AS45	05.20.20	Lunch	Permanent HCA		Doesn’t Know
AS45	19.02.20	Lunch	Permanent HCA		Yes.
ELF47	06.03.20	Breakfast	Agency HCA		No.
ELF47	22.07.20	Lunch	Permanent HCA	KN	Yes.
MBM30	12.08.20	Lunch	Permanent HCA		No.
MJ39	05.02.20	Breakfast	Permanent HCA		No.
MJ39	07.02.20	Lunch	Permanent HCA		Reported has not personally seen the care plan, would rather take instruction from the head nurse.
MJ39	11.02.20	Lunch	Permanent HCA		No.
MJ39	13.02.20	Lunch	Permanent HCA		No.
TA40	05.08.20	Lunch	Permanent Senior HCA	KJ	Yes
TA40	12.08.20	Lunch	Permanent HCA	WP	Yes.

Resident	Date	Mealtime	HCA	Code	Do you feel able to give adequate care to this resident?
JB47	17.02.20	Lunch	Permanent HCA		Not Asked
JB47	03.03.20	Breakfast	Permanent HCA	PN	Yes, has fed him multiple times
JB47	05.03.20	Lunch	Permanent HCA	NN	Yes.
JB47	11.03.20	Lunch	Permanent HCA	PN	Yes but would like to know more
JF22	03.03.20	Dinner	Permanent HCA	PD	Yes, she has fed JF before a few times and knows her well so feels she knows what to do, how to try to get her to eat. She knows what to do if she starts coughing.
KR36	09.03.20	Lunch	Permanent HCA	SA & AC	Yes, from previous experience from feeding him. Now knows what to do.
MJ48	05.03.20	Dinner	Permanent HCA	SA	Yes, knows residents she works with.

Resident	Date	Mealtime	HCA	Code	Do you feel able to give adequate care to this resident?
AS45	05.20.20	Lunch	Permanent HCA		Yes.
AS45	19.02.20	Lunch	Permanent HCA		Yes.
ELF47	06.03.20	Breakfast	Agency HCA		Yes.
ELF47	22.07.20	Lunch	Permanent HCA	KN	Yes, knows this patient. He has fed her on various occasions and knows her needs but also knows how she communicates without her having to speak or talk to him.
MBM30	12.08.20	Lunch	Permanent HCA		Yes.
MJ39	05.02.20	Breakfast	Permanent HCA		Reported yes.
MJ39	07.02.20	Lunch	Permanent HCA		Reported that she knew the residents well and felt like she gave them good care. However, also reported sometimes feeling like she did not always know what to do when resident began choking/coughing
MJ39	11.02.20	Lunch	Permanent HCA		Yes, through experience and guidance from peer HCA/head nurse.
MJ39	13.02.20	Lunch	Permanent HCA		Yes.
TA40	05.08.20	Lunch	Permanent Senior HCA	KJ	Yes.
TA40	12.08.20	Lunch	Permanent HCA	WP	Yes.

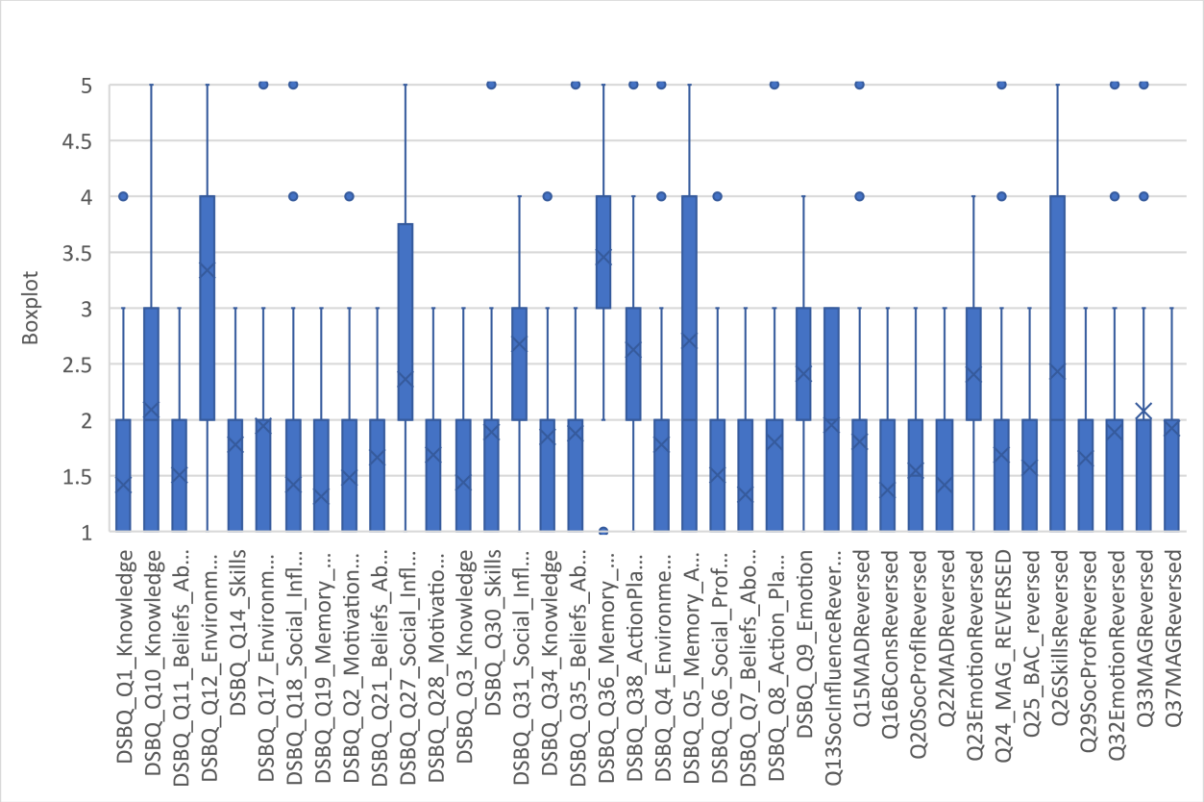
Resident	**Date**	**Mealtime**	**HCA**	**Code**	**Do you feel supported (guidance, training) by the care home to care for residents with Dysphagia?**
JB47	17.02.20	Lunch	Permanent HCA		Not Asked
JB47	03.03.20	Breakfast	Permanent HCA	PN	Yes, particularly through the training offered and also from the other HCAs advice
JB47	05.03.20	Lunch	Permanent HCA	NN	Yes.
JB47	11.03.20	Lunch	Permanent HCA	PN	Yes but would like more training as knows there are other things that would help.
JF22	03.03.20	Dinner	Permanent HCA	PD	Yes, she feels supported by care home. They give lots of training.
KR36	09.03.20	Lunch	Permanent HCA	SA & AC	No formal training, but received training from care home when started and at certain intervals. She is about to do some infection control training.
MJ48	05.03.20	Dinner	Permanent HCA	SA	Yes, very supported, feels CNC is a good care home.

Resident	**Date**	**Mealtime**	**HCA**	**Code**	Do you feel supported (guidance, training) by the care home to care for residents with Dysphagia?
AS45	05.20.20	Lunch	Permanent HCA		Yes.
AS45	19.02.20	Lunch	Permanent HCA		Yes.
ELF47	06.03.20	Breakfast	Agency HCA		Agency staff but finds care home staff informative.
ELF47	22.07.20	Lunch	Permanent HCA	KN	Yes, he enjoys his job and also working with his colleagues. He prefers this care home to his previous
MBM30	12.08.20	Lunch	Permanent HCA		Yes.
MJ39	05.02.20	Breakfast	Permanent HCA		Reported yes.
MJ39	07.02.20	Lunch	Permanent HCA		Reported not feeling supported enough, would like some more specialist training.
MJ39	11.02.20	Lunch	Permanent HCA		Yes, feels supported.
MJ39	13.02.20	Lunch	Permanent HCA		Yes.
TA40	05.08.20	Lunch	Permanent Senior HCA	KJ	Yes.
TA40	12.08.20	Lunch	Permanent HCA	WP	Yes.

Appendix 5.1 Safety Behaviour Survey Factor Loadings (Standardised Estimates)

Factor	Indicator	Estimate	SE	Z	p	Stand. Estimate
Knowledge	DSBQ_Q34_Knowledge	0.50	0.10	5.13	< .001	0.59
	DSBQ_Q10_Knowledge	0.28	0.12	2.26	0.024	0.27
	DSBQ_Q3_Knowledge	0.46	0.08	5.65	< .001	0.65
	DSBQ_Q1_Knowledge	0.28	0.07	3.87	< .001	0.45
Skills	DSBQ_Q14_Skills	0.36	0.08	4.67	< .001	0.50
	Q26SkillsReversed	0.88	0.15	5.65	< .001	0.66
	DSBQ_Q30_Skills	0.45	0.12	3.89	< .001	0.46
Social	DSBQ_Q6_Social_Professional_Identity	0.55	0.10	5.66	< .001	0.65
	Q20SocProfIReversed	0.34	0.07	4.53	< .001	0.57
	Q29SocProfReversed	0.20	0.08	2.58	0.010	0.29
Beliefs About Capabilities	DSBQ_Q7_Beliefs_About_Capabilities	0.40	0.06	6.49	< .001	0.76
	DSBQ_Q21_Beliefs_About_Capabilities	0.21	0.09	2.27	0.023	0.30
	Q25_BAC_reversed	0.29	0.07	3.95	< .001	0.47
Beliefs About Consequences	DSBQ_Q11_Beliefs_About_Consequences	0.28	0.09	3.16	0.002	0.38
	Q16BConsReversed	0.44	0.08	5.69	< .001	0.75
	DSBQ_Q35_Beliefs_About_Consequences	0.11	0.13	0.84	0.401	0.10
Motivation & Goals	DSBQ_Q2_Motivation_Goals	0.34	0.08	4.03	< .001	0.47
	DSBQ_Q24_Motivation_Goals	-0.76	0.09	-8.21	< .001	-0.81
	DSBQ_Q28_Motivation_Goals	0.42	0.09	4.78	< .001	0.53
	Q33MAGReversed	0.59	0.12	5.12	< .001	0.57
	Q37MAGReversed	0.33	0.07	4.57	< .001	0.50
Memory, Attention & Decision Making	DSBQ_Q5_Memory_Attention_DecisionMaking	-0.03	0.18	-0.15	0.882	-0.02
	DSBQ_Q19_Memory_Attention_DecisionMaking	0.25	0.06	4.17	< .001	0.50
	Q15MADReversed	0.55	0.10	5.40	< .001	0.59
	Q22MADReversed	0.34	0.06	5.70	< .001	0.62
	DSBQ_Q36_Memory_Attention_DecisionMaking	-0.33	0.15	-2.17	0.030	-0.28
Environmental Context & Resources	DSBQ_Q4_EnvironmentalContext_Resources	0.02	0.29	0.07	0.948	0.02
	DSBQ_Q12_EnvironmentalContext_Resources	-0.00	0.06	-0.07	0.948	-0.00
	DSBQ_Q17_EnvironmentalContext_Resources	0.01	0.15	0.07	0.948	0.01
Social Influence	Q13SocInfluenceReversed	0.24	0.12	1.99	0.046	0.32
	DSBQ_Q18_Social_Influence	0.03	0.08	0.32	0.751	0.04
	DSBQ_Q27_Social_Influence	0.43	0.20	2.18	0.029	0.36
	DSBQ_Q31_Social_Influence	-0.21	0.14	-1.46	0.143	-0.17
Emotion	DSBQ_Q9_Emotion	-0.03	0.13	-0.20	0.842	-0.03
	Q23EmotionReversed	0.79	0.14	5.83	< .001	0.69
	Q32EmotionReversed	0.88	0.11	7.75	< .001	0.78
Action Planning	DSBQ_Q8_Action_Planning	0.49	0.17	2.93	0.003	0.59
	DSBQ_Q38_ActionPlanning	0.29	0.15	2.00	0.046	0.27

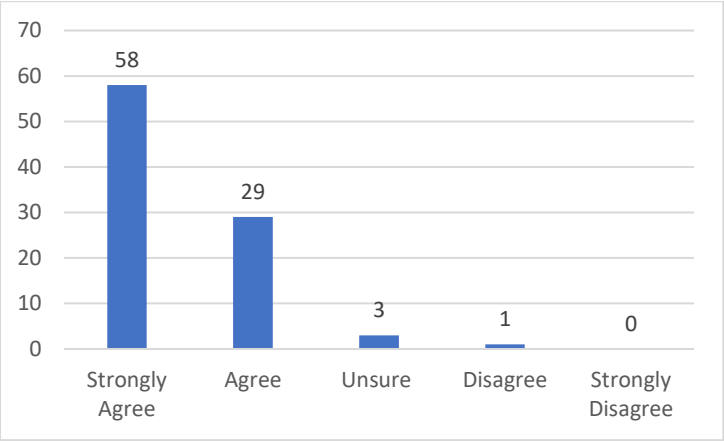
Appendix 5.2 Distributions of response to survey showing skewed distributions



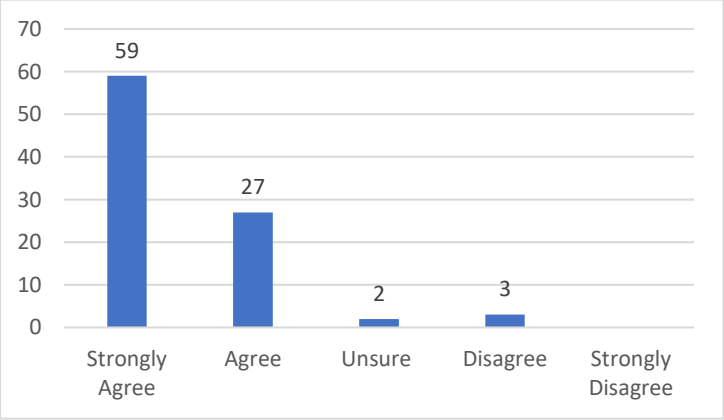
Appendix 5.3 Responses.

Knowledge

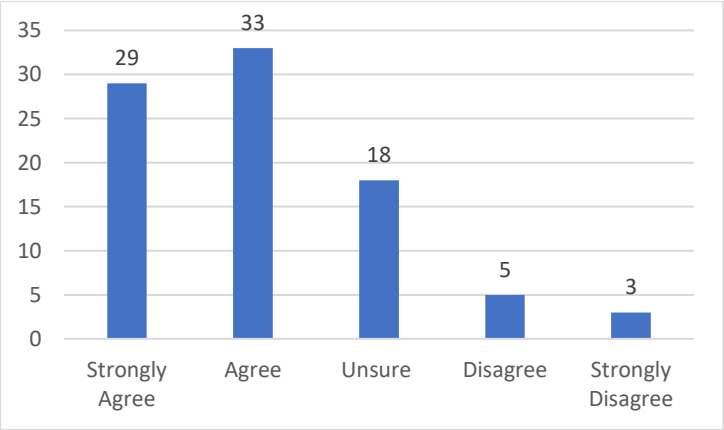
I know that the speech and language therapist (SLT) will make recommendations about the care of residents with swallowing difficulties



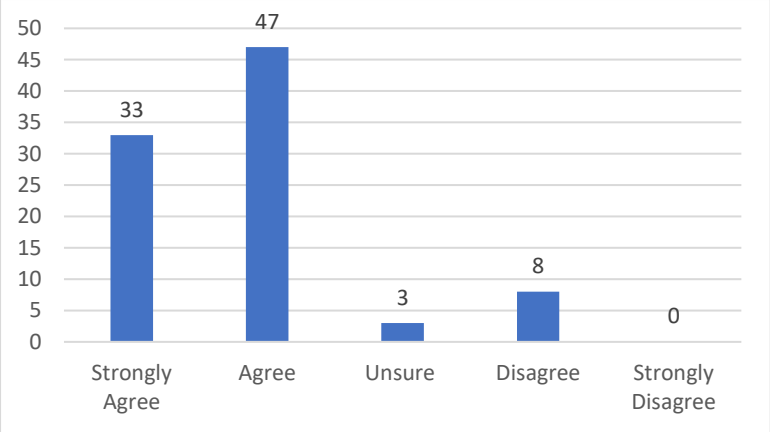
I know what food texture and thickness (e.g., minced & moist, pureed or soft & bite sized) each resident needs to eat and drink safely.



I know not to use a straw or a beaker for the residents who have swallowing difficulties.

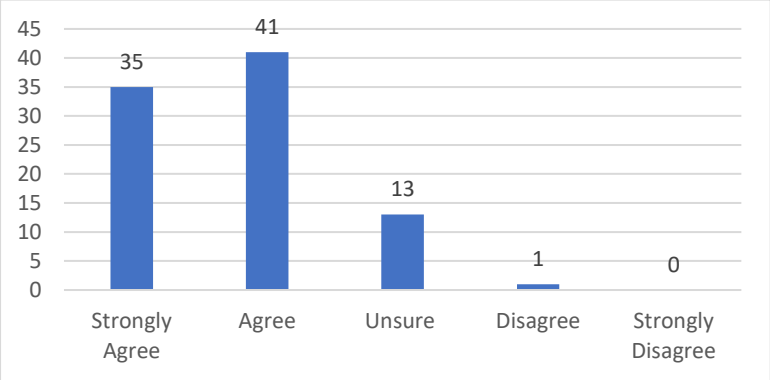


I know how much food to offer in each mouthful for the resident to eat and drink safely.

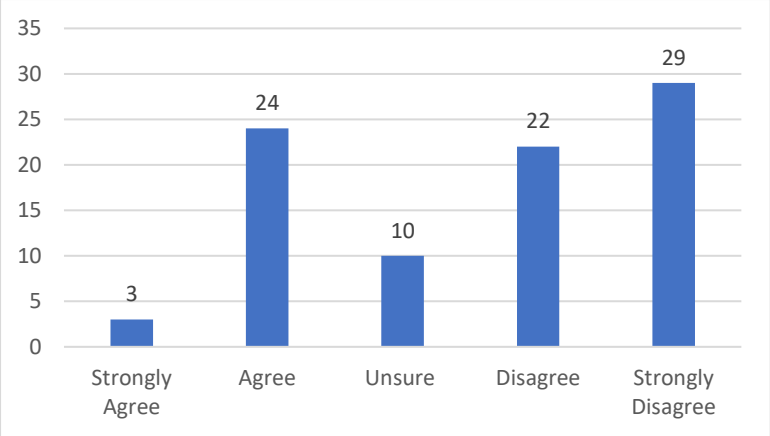


Skills

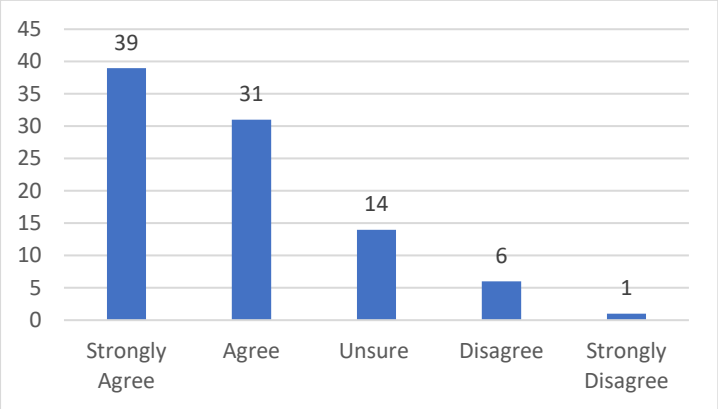
I know what I should do if the resident coughs or chokes when I am helping them to eat or drink.



I have not had enough training to know what to do when the resident is having trouble swallowing.

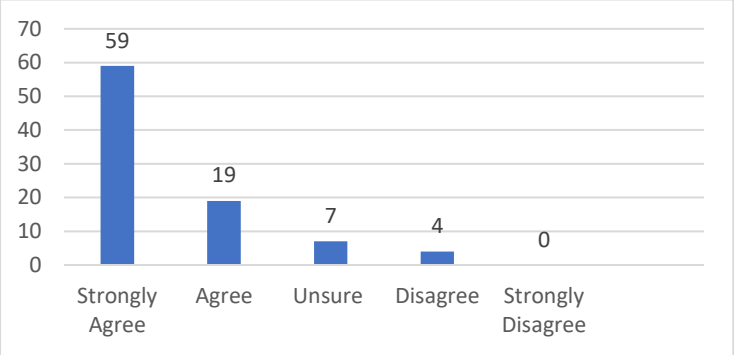


I can always sit the resident upright before I start helping them to eat or drink.

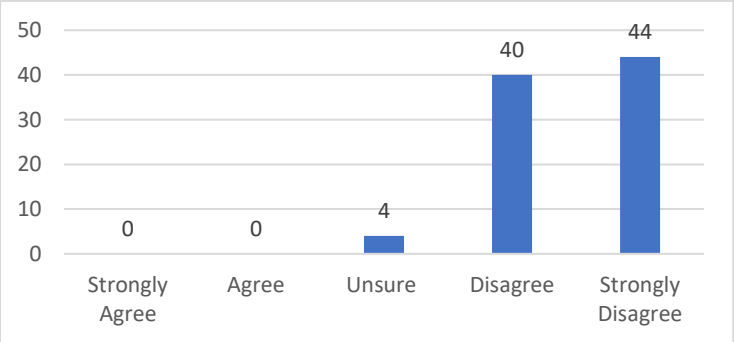


Social/ Professional Role & Identity

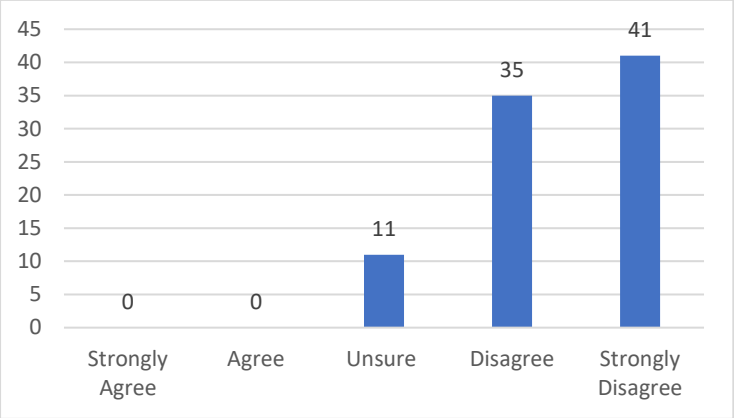
It is my responsibility to know the speech and language therapist (SLT) recommendations for each resident with swallowing difficulties



I am not sure what my role is in helping the resident to eat and drink safely.

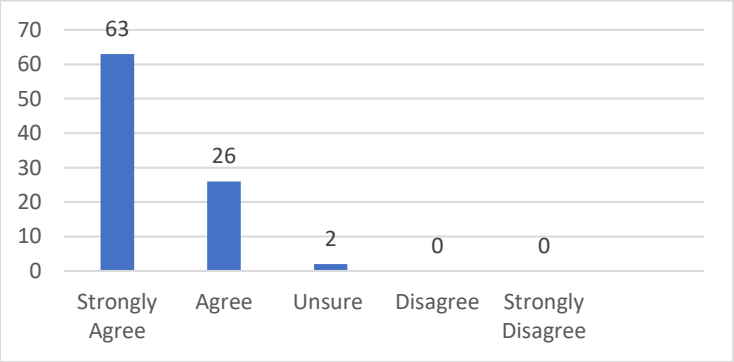


It is not my responsibility to know the IDDSI levels (International Dysphagia Diet Standardisation initiative) for food texture and thickness.

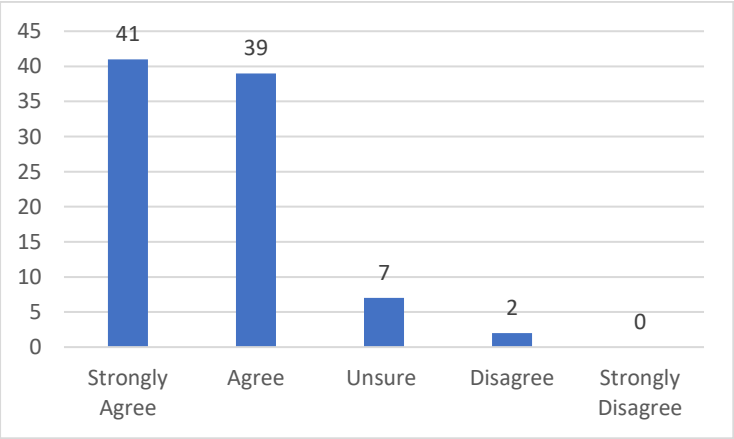


Beliefs About Capabilities

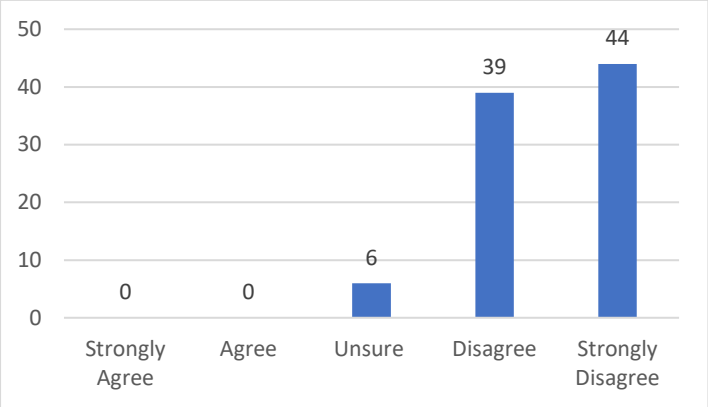
I am confident that I can help the resident to eat and drink safely.



I can take the correct action if the resident is having trouble swallowing.

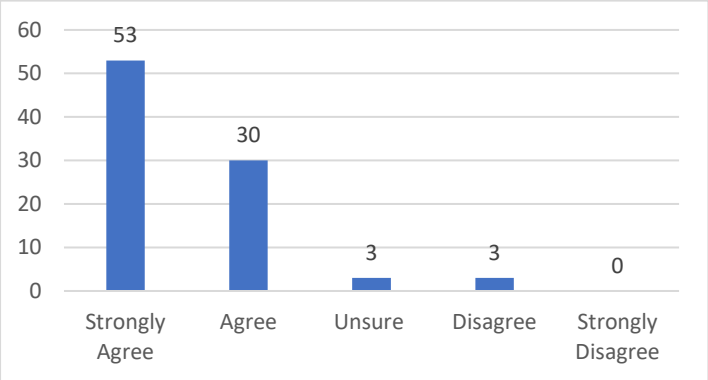


I do not find it easy to follow the care plan when helping the resident to eat and drink.

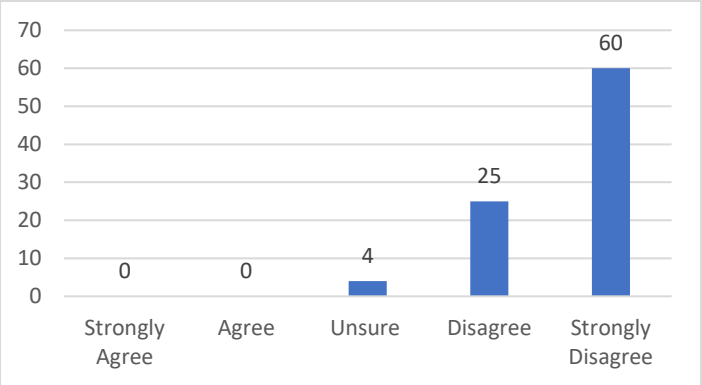


Beliefs About Consequences

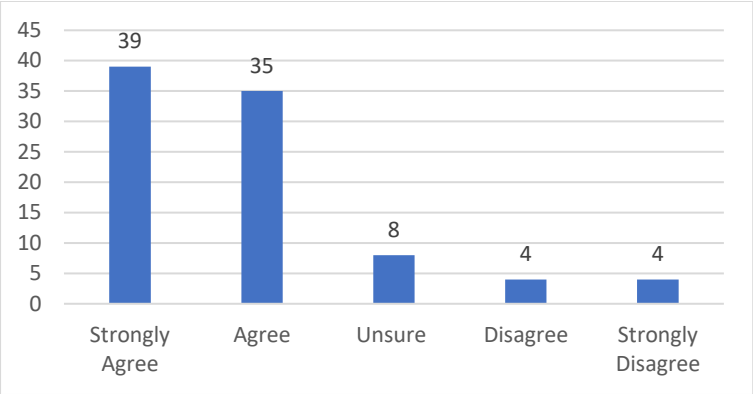
I would get in to trouble if I didn't follow the care plan when helping the resident eat and drink.



I don't think following the care plan is important when helping the resident to eat and drink.

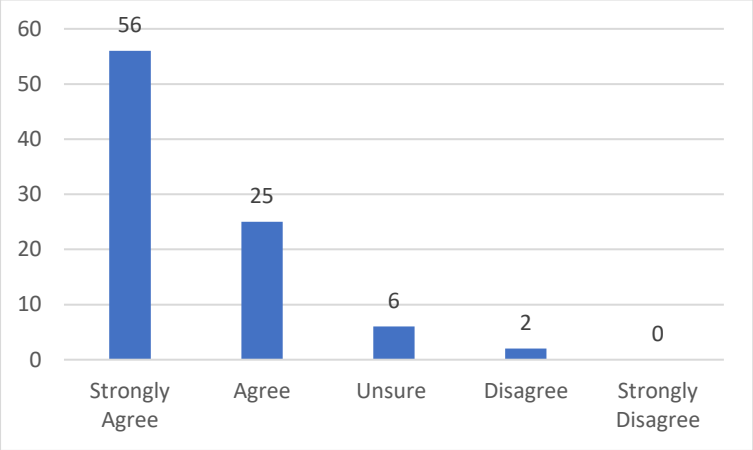


The resident would choke if I didn't follow the care plan when helping them to eat and drink.

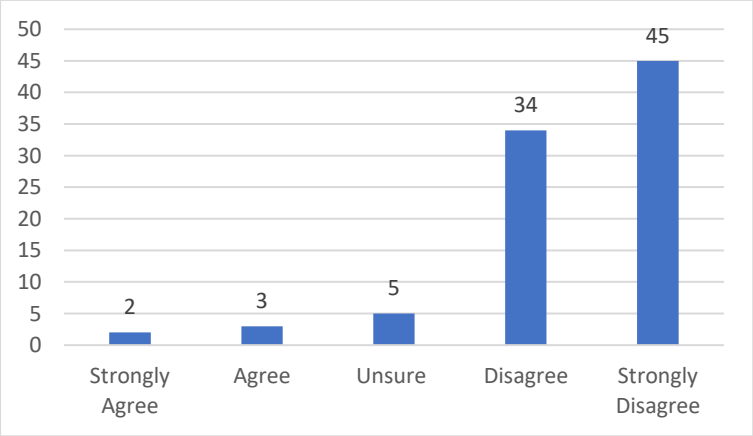


Motivation & Goals

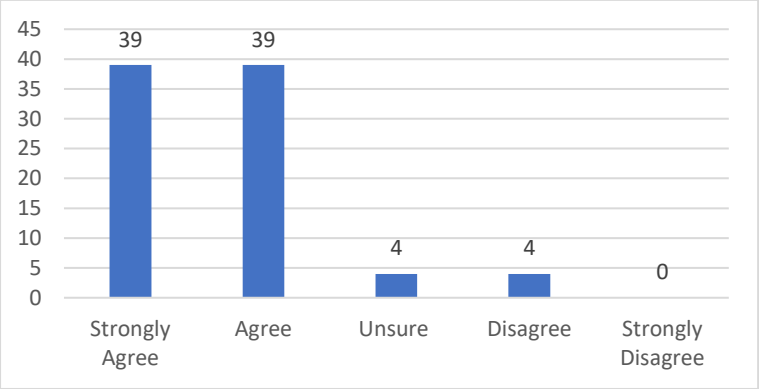
It is important to me that the resident knows what is in their meal before I help them to eat.



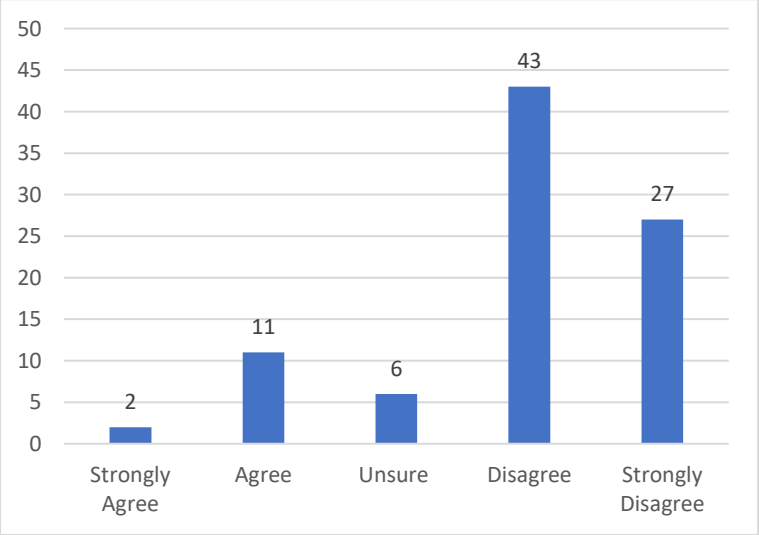
I aim to get the job done quickly when I am helping the resident to eat and drink.



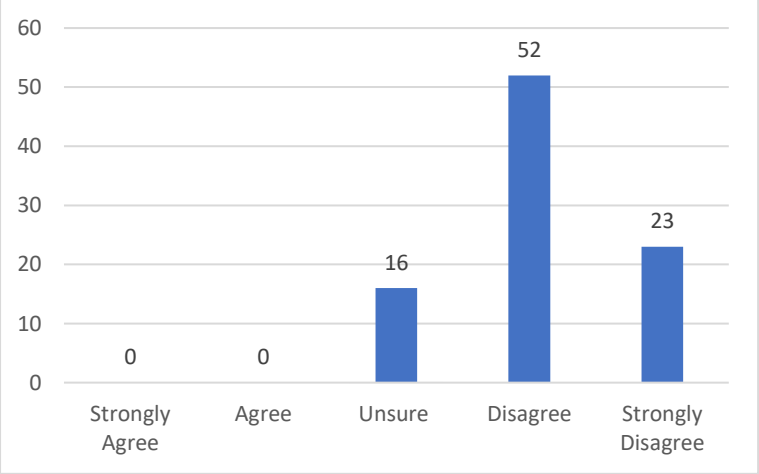
I always follow the care plan when I am helping the resident to eat and drink.



Other tasks get in the way of me helping the resident to eat and drink safely.

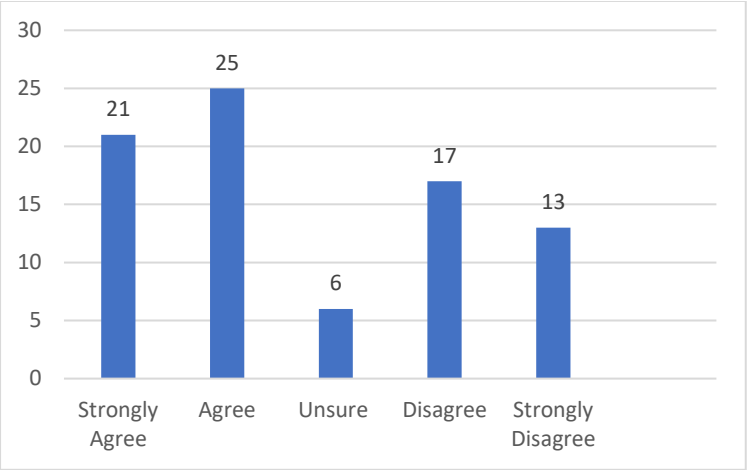


There isn't always enough time to support residents to eat and drink safely.

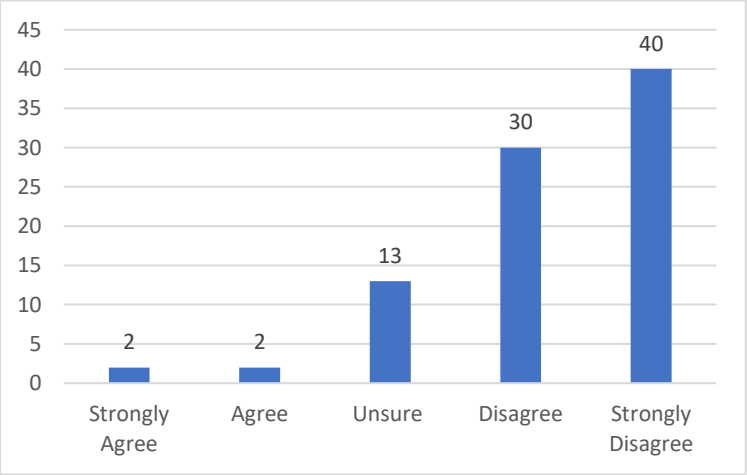


Memory, Attention & Decision Making

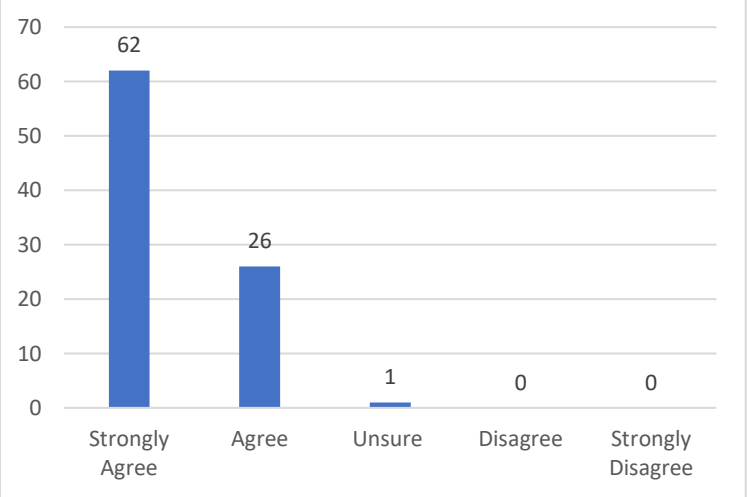
I think about the other things I need to do when I am helping the resident eat and drink.



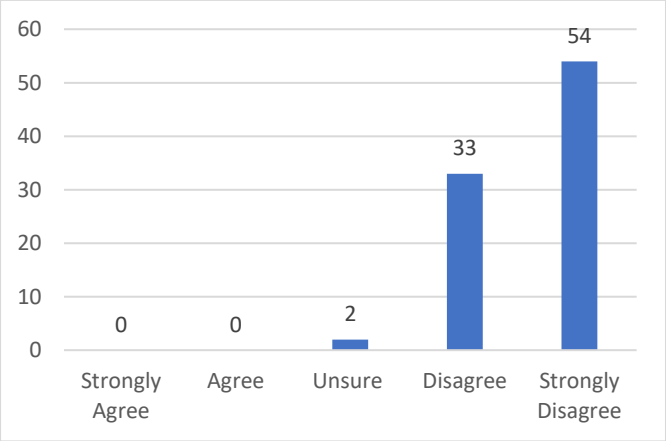
I have good reasons for not following the care plan when I am helping the resident to eat and drink.



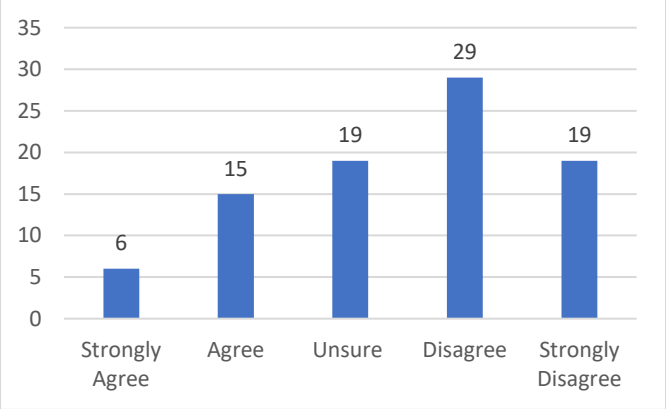
I always watch the resident while I am helping them to eat and drink.



I often forget what I am supposed to do to help the resident eat and drink safely.

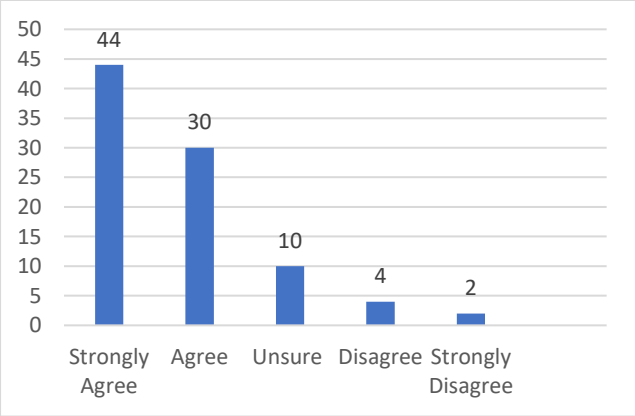


I make decisions about how to feed the resident with swallowing difficulties.

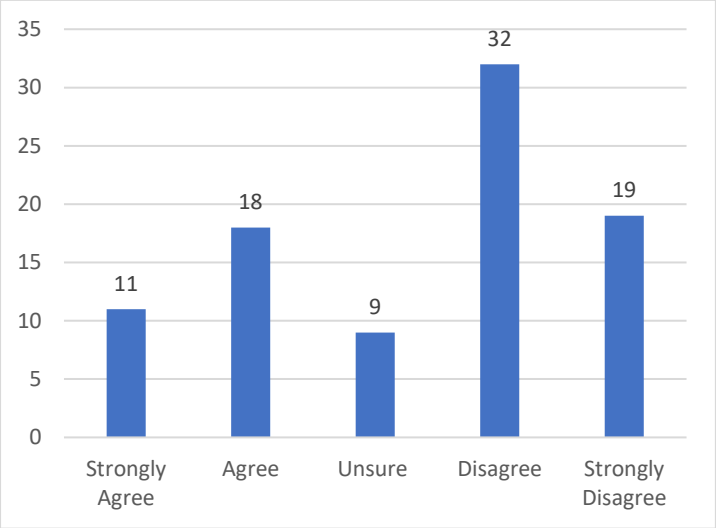


<u>Environmental Context & Resources</u>

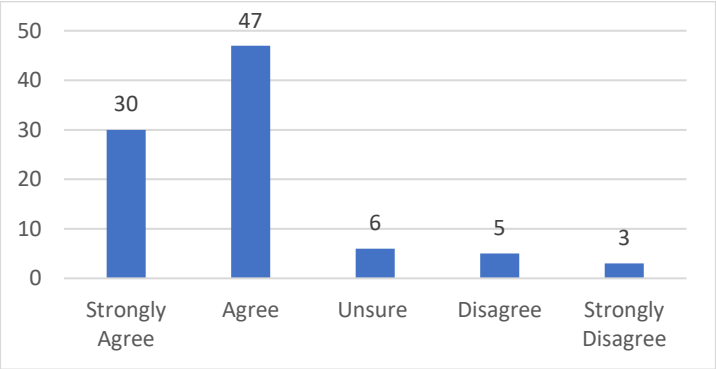
The right equipment (e.g. plate guard, angled spoon) is available to help me feed the resident.



I have a set amount of time to help the resident eat and drink.

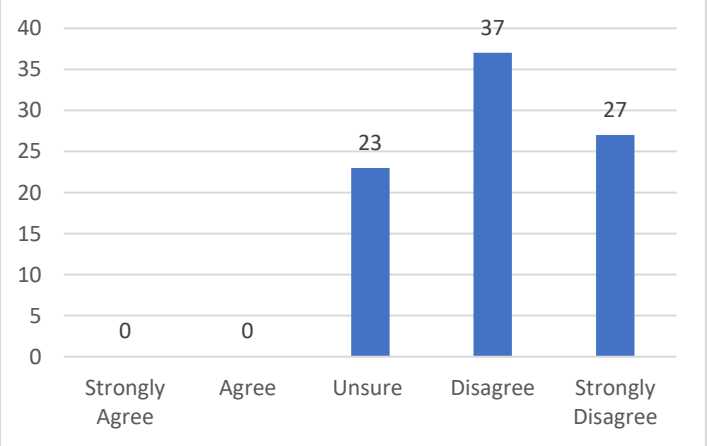


I am told what to do to help the resident to eat and drink safely.

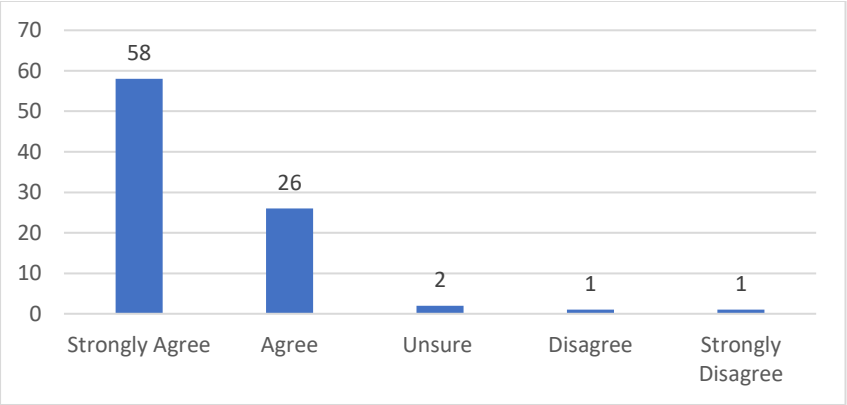


<u>Social Influence</u>

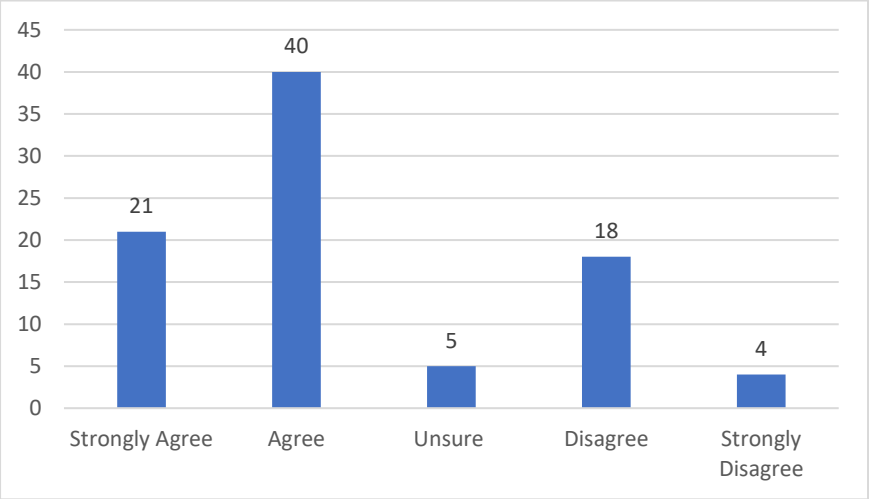
Other care assistants don't follow the care plan for helping the resident to eat and drink safely.



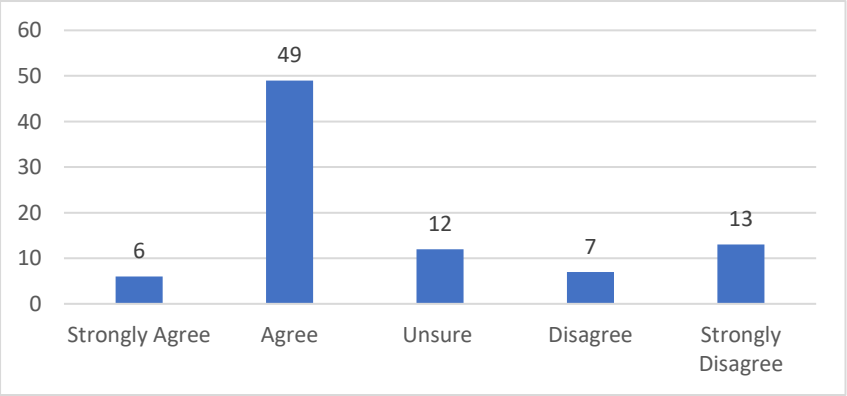
I can ask the qualified nursing staff for advice on how to help the resident to eat and drink safely.



Qualified staff check that I am following the care plan when I am helping the resident to eat and drink.

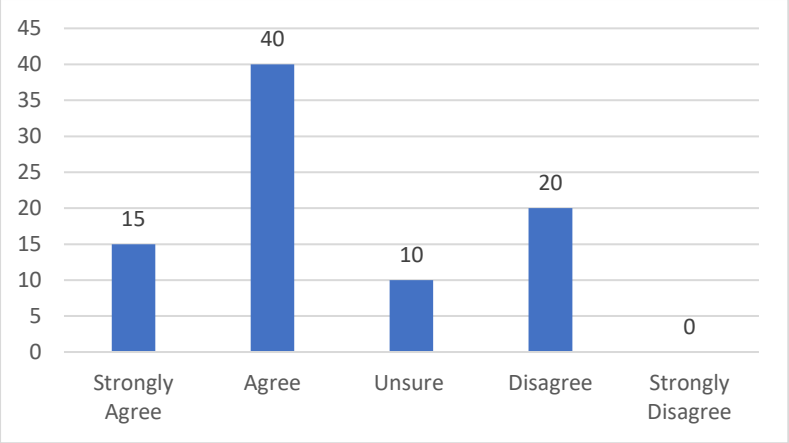


I can rely on the other care assistants to tell me how to help the residents to eat and drink safely.

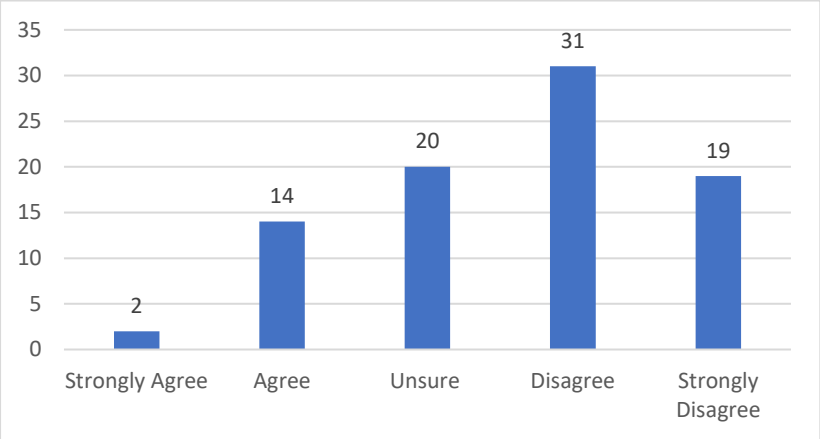


Emotion

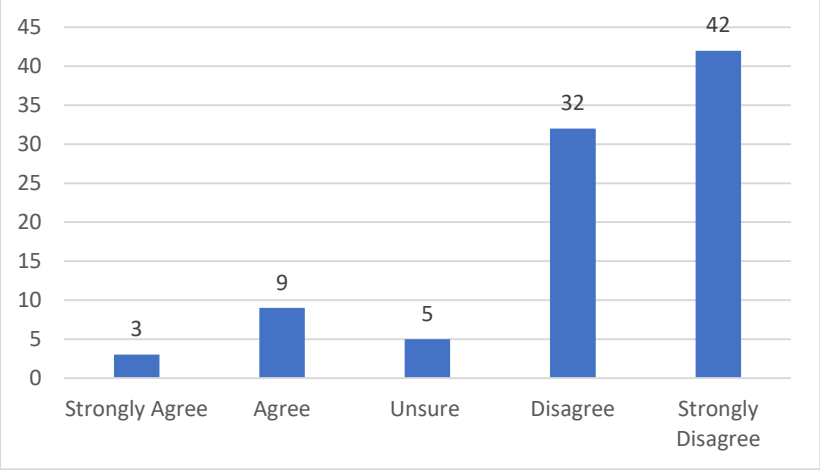
I worry that the resident might choke when I am helping them to eat or drink.



I worry about whether I am giving the right care when I am helping the resident to eat and drink.

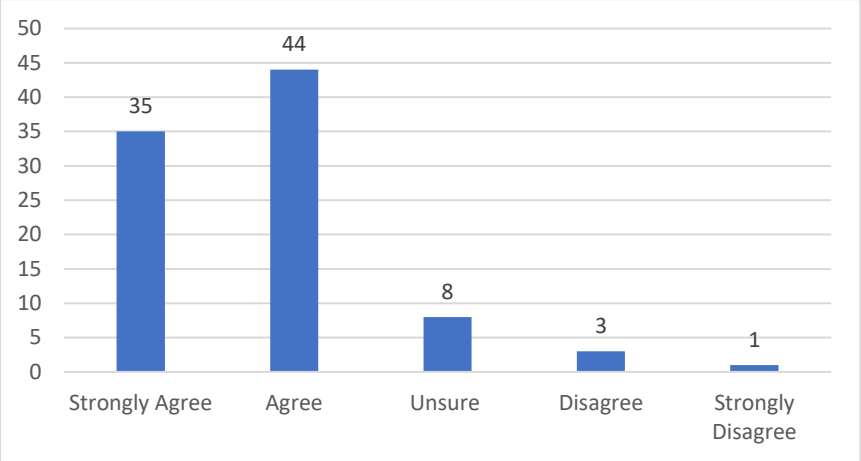


I get frustrated when it takes the resident a long time to eat and drink.



Action Planning

I read the residents care plan before a mealtime so I can plan how to help them eat and drink safely.



At mealtimes, I plan when I will help the resident with swallowing difficulties to eat.