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RESEARCH ARTICLE

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The experiences of stroke survivors with eating and drinking difficulties, in acute stroke units: a qualitative inquiry

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ABSTRACT

Purpose: To examine the eating and drinking difficulties of stroke survivors in acute stroke units, aiming to identify challenges and opportunities to enhance current rehabilitation practices within stroke care.

Materials and Methods: This qualitative, multi-method study explored stroke survivors' experiences. Data collection included six hours of observations in two UK stroke wards, five stroke survivor interviews, and one informal carer interview. Filmed interviews were also conducted with two stroke survivors, one informal carer, and five healthcare staff. Participants for the interviews were selected *via* purposive sampling. Thematic analysis followed Thomas and Harden's three-step method for detailed data exploration.

Results: Stroke survivors faced significant challenges with eating and drinking, including isolation, inadequate assistance, limited adaptive equipment, and restricted communal dining. Stroke survivors reported embarrassment and frustration over physical limitations. Both survivors and staff emphasised the importance of social connections during meals, advocating for shared dining to improve well-being. Greater personalisation and culturally informed menu options were suggested to better meet patients' diverse needs and enhance mealtime experiences.

Conclusions: Utilising communal ward environments to foster social interaction, offering individualised support, and utilising adaptive equipment may address eating and drinking challenges and may improve the psychological and social well-being of stroke survivors.

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Stroke; rehabilitation; eating; drinking; personalisation

➤ IMPLICATIONS FOR REHABILITATION:

- Incorporating therapeutic mealtime experiences, such as shared meals in group settings, could promote psychological well-being, foster a sense of normalcy, and encourage patients' active involvement in daily activities.
- Ensuring the consistent availability of adaptive equipment and normalising the use of specialised eating aids, along with providing staff training to support their application, could enhance patient autonomy and participation during mealtimes.
- Rehabilitation programs could prioritise environments and interventions that encourage peer interaction, facilitate skill-building, and promote a sense of accomplishment.
- Structured opportunities for patients to observe and learn from others, as well as tailored strategies that empower them to regain a sense of control, could play a pivotal role in their recovery of eating and drinking skills.
- The findings of this study emphasise the need to address the diverse needs of patients through better personalisation and culturally informed menu options, which could significantly enhance their mealtime experience.

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Introduction

Stroke affects an estimated 12.2 million people each year, occurring every three seconds, with 101 million stroke survivors worldwide [1], and it is the leading cause of death and the third leading cause of disability globally [2]. While most stroke patients survive, many are left dealing with long-term consequences that affect multiple aspects of life, including cognition, motor skills, communication, and emotions.

Motor dysfunction is one of the most common post-stroke impairments, affecting approximately 80% of patients acutely and 40% chronically [3]. Dysphagia, impacting 37–78% of stroke survivors [4] is another frequent consequence. Both impairments compromise eating and drinking, increasing the risk of malnutrition, dehydration, low mood, and complications such as pneumonia [5] and pressure ulcers [6,7]. Early intervention is essential to restore oral intake, improve outcomes, and reduce hospital stays and mortality (Royal College of Physicians, [29, 30]).

Rehabilitation for these difficulties may involve specialised interventions, including assistive devices, physical task-specific training, and dysphagia treatments like muscle-strengthening exercises (Royal College of Physicians, [29–30]). However, the psychological impact is less well-understood [8]. Stroke survivors often report feelings of shame, loss of pleasure eating, and distress over losing control of their eating habits, which can lead to social isolation [8–10].

This study aimed to explore the experiences of stroke survivors with eating and drinking difficulties early in their rehabilitation journey. We wanted to identify the barriers they face and generate ideas for interventions to reduce the physical and psychological impact of eating and drinking difficulties to improve related rehabilitation outcomes.

Methods

Study design

This qualitative multiple-methods study employed three sequential qualitative methods: participant observations of breakfast time in two acute stroke units; filmed and non-filmed interviews with stroke survivors, informal carers and National Health Service (NHS) staff.

Setting

In the UK people who have a stroke are admitted to inpatient beds in acute stroke units provided by the NHS. The participants for this study were recruited from two hospital stroke services in one region in the north of England, serving a population of approximately one million. The observations and interviews were conducted in hospital site 1 on two stroke wards with fifteen beds and sixteen beds. The average length of stay on these wards was four weeks. The filmed interviews were conducted in site 1 and site 2.

Methodology

The use of different research methods across sites was a deliberate design feature, intended to capture the complexity of stroke survivors' mealtime experiences by integrating perspectives across settings, roles, and lived experiences. Participant observation, interviews, and filmed interviews each offered distinct insights into how environment, interpersonal support, and personal preferences shaped these experiences. The filmed interviews were also used as trigger films in the next stage of the study, which will be reported in a future publication (supplementary information). Trigger films are short, edited video clips designed to stimulate discussion, reflection, or responses from participants in research.

Participant observations

Examining real-world settings as they unfold can shed light on routines, activities, and behaviours [11]. To gain a comprehensive understanding of the experiences of stroke survivors in context, participatory observations were conducted in two acute stroke wards during breakfast time [12]. Breakfast was chosen as the focus as this plays a critical role in providing energy for the day, particularly for patients recovering from a stroke. Participant observation was employed to gain valuable insights into the behaviours, language, and cultural nuances associated with breakfast activities in stroke wards Informed written consent was obtained from all staff and patients observed [13].

Interviews

Interviews are one of the most popular methods of qualitative research [14,15]. They capture unique lived experiences, and they enable interviewees the opportunity to share their narratives from their perspectives [14–17]. They have been used extensively to explore stroke survivors' experiences of eating and drinking difficulties [5,18,19].

Filmed interviews

Film is a novel research method which captures visual, auditory, and nonverbal cues, such as body language, spatial arrangements, and environmental context, providing a holistic understanding of the phenomena studied [20]. The use of film can engage harder-to-reach populations [20,21] including those with communication difficulties such as aphasia allowing them to express experiences more naturally [22]. Researchers and participants can review the footage, fostering reflection and potentially deeper insights into the phenomena being studied [22]. Short films can also be used to explore existing management, lived experience and priorities for change [23] as well as discoveries and insights that may not have been revealed otherwise [24].

Ethical statement

The study protocol was approved by NHS Ethics on the 5th of January 2021 by the North West NHS Ethics Committee (REC 21/NW/0313). All participants provided written informed consent.

Data collection

Sampling and recruitment

All potential participants received detailed information sheets, including aphasia-friendly versions co-developed with a Stroke Patient and Public Involvement Group, to facilitate understanding [25]. Participants were given 48 hours to consider their involvement and ask questions. Written consent was obtained, and participants retained the right to withdraw at any time. Film-related activities adhered to ethical guidelines relevant to photo voice approaches, including provisions for consent and privacy protections. Site 1 Principal Investigator (LB) managed recruitment and informed consent. Three patients requested meetings with the Chief Investigator (NJ) to clarify study details before consenting to participate.

Purposive sampling was employed to ensure a diverse and relevant representation of stroke survivors from the two hospital sites. Staff participants were recruited through posters displayed in stroke ward staff rooms and emails distributed by stroke team leaders. At Site 1, patients, carers, and staff on two stroke wards were informed about the study and invited to participate in interviews, observations, and filmed interviews. At Sites 2 information was provided regarding participation in filmed interviews.

Twenty-nine participants were recruited from two distinct sites, including thirteen patients and fourteen staff members (Table 1). Six of the thirteen patients had aphasia and only two from the sample identified as non-white (one female originally from Pakistan and another female identified as British-Asian born in the UK). Each data collection method, observations, interviews, and filmed interviews, was conducted with a separate group of participants. This approach ensured that no individual took part in more than one method, preventing any overlap between participant groups.

Observations were conducted at Site 1 within two months of the participants experiencing a stroke. Interviews at the same site included NHS staff and patients, with one dyad interview (Patient and Carer) conducted. Filmed interviews were carried out at both sites and included stroke survivors, an informal carer, and NHS staff. Three participants were interviewed in a home location after being discharged from the hospital following recruitment to the study. A table of participant characteristics is provided in Table 1.

Table 1. Participant characteristics.

Method	Ward/ Context	Patients	Staff	Informal Carer
Participant Observations	**Site 1** Ward 1	**3 Patients** 1 Female (1*A) 2 Males	**5 Staff** 1 Housekeeper (F) 3 Support Worker (F) 1 Nurse (F)	0
	Site 1 Ward 2	**6 Patients** 3 Females 3 Males (1*A)	**2 Staff** 1 Housekeeper (F) 1 Support Worker (F)	0
Interviews	**Site 1** **Five Interviews**	**Site 1 (2 Patients)** Ward 1 1 Female (1*A) Ward 2 (1) 1 Male (1*A)	**Site 1** (**2 Staff who work across wards 1 & 2)** 1 Occupational Therapist (F) 1 Rehabilitation Assistant (F)	**Community** (Dyad patient and carer) 1 (M)- Patient 1 (F)- carer
Filmed Interviews	**Eight Interviews**	**Site 1 – patients discharged to the community (2)** **2 Patients** 1 Female (1*A) 1 Male (1*A)	**Five Staff** **Site 1** 1 Occupational therapist (F) 1 Nurse (M) **Site 2** 1 Speech and Language Therapist (F) 1 Occupational Therapist (F) 1 Psychology Assistant (F)	**Community** 1 (F)- carer
Totals		**13 (6 Female, 7 Male)**	**14 Staff (13 Female, 1 Male)**	**2 (Female) Informal Carers**

*A = Aphasia – a language communication disorder.

Participant observations

In the first ward, fourteen patients were in residence. Of these, three patients (one female and two males) provided written informed consent to be observed during the morning ward routines. All five staff members on shift that day also consented to participate, including one housekeeper, three support workers, and one nurse. Several patients did not take part for various reasons. Three did not experience any difficulties with eating and drinking, while two were feeling unwell at the time. Another two were either newly admitted or awaiting discharge, making their participation impractical. Additionally, three patients were deemed not clinically appropriate for observation due to being acutely unwell, and one patient declined to participate.

On the second ward, sixteen patients were present, and six (three males and three females) gave written informed consent for observations. Two staff members, a housekeeper and a support worker, also agreed to take part. As in the first ward, several patients chose not to participate. Four reported no difficulties with eating and drinking, while two were either preparing to go home or had recently been admitted. Another four were considered unsuitable for observation due to their acute medical condition.

Two sessions of participant observations were conducted by the Chief Investigator (NJ) and Principal Investigator (LB) on two stroke wards. Both researchers observed simultaneously during breakfast for three hours on both wards. This included observing how patients were supported during morning breakfast routines and whether they were able to manage independently or required support. Due to the layout of the wards, the researchers worked independently, following NHS staff around and observing patients on opposite sides of the ward.

O'Reilly [12] emphasises the importance of using a structured framework to guide data collection during observations, particularly in studies involving multiple researchers (supplementary Information). Accordingly, a framework was developed to guide the observation process. However, the approach remained intentionally flexible, allowing researchers to document observations on the environment, interactions, and conversations in their field notes as they deemed relevant.

During the observations, the researchers asked participants questions and recorded responses in field notes [26]. The potential influence of asking questions during observations was acknowledged, and researchers remained reflexive about how such interactions may have shaped the behaviours and responses observed [26]. Additionally, post-observation notes were made on the same day to capture thoughts and reflections from the session. NJ and LB met after each observation to reflexively discuss their experiences and document any reflections and observations in field notes [12]. These field notes were written in journals, which were stored securely. When the observations were complete, the journals were transcribed verbatim and uploaded to Nvivo 12 for analysis.

Interviews

The interviews were conducted in private rooms in the stroke wards. Interviews were facilitated using two separate interview topic guides, one tailored for staff and another for patients and carers [27]. Participants were questioned about how the stroke had affected their experience of eating and drinking activities, and the type of support required, as well as their general mealtime experiences. Staff were questioned about their observations of the difficulties patients experienced, what knowledge and skills they had for helping stroke survivors with eating and drinking difficulties and what support they thought stroke survivors might need. Participants gave consent to audio recording the interviews which lasted 45–60 min. The transcripts were typed up verbatim and uploaded to NVivo 12 for analysis.

Filmed interviews

The films were facilitated using two separate interview topic guides, one tailored for staff and another for patients and carers [27]. Guides were designed with simple, open questions developed to explore the phenomena of eating and drinking difficulties after a stroke. Questions for stroke survivors and carers were designed to seek opinions, emotional experiences, behaviours, beliefs, and sensory experiences related to eating and drinking [28]. Questions for health care professionals were designed to elicit detailed insights into their roles, decision-making, interactions with patients who had eating and drinking difficulties and perceptions of care practices around meal times. These questions aim to uncover not just what professionals do, but how and why they do it, revealing the contextual, emotional, and ethical dimensions of their work with stroke survivors during meal-times.

The films lasted between 10 and 20 min, and the scripts were transcribed verbatim and imported to NVivo 12 for analysis. The films were created using a Sony DSCWX350 digital camera and mini tripod. The footage was uploaded to the editing software Abode Premier Rush, a desktop editing application to make simple and concise edits to film clips. In a later part of this study, the videos were edited into three trigger films [29] used in the intervention development stage of the study; these videos can be viewed from the links in the supplementary information.

Analysis strategy

A systematic data analysis was deployed following Thomas and Harden's 3-step method to analyse field notes, interviews, and film transcripts [31]. Codes were generated and developed to create themes. This involved iteratively identifying similarities, differences, and dissidence between transcripts. Each data set was read for familiarisation and mind maps were developed iteratively in tandem with the coding process. The mind maps helped to conceptualise ideas and develop themes [32]. In stage 1 [31] initial codes were generated by NJ in a rigorous line-by-line analysis. A phrase or word was used to describe the code. Then followed an iterative process in which codes were grouped using an inductive approach resulting in sentences that had multiple codes. New codes were developed with each iteration adding to those already developed and descriptive themes were iteratively developed in Stage 2 [31].

The preliminary synthesis was robustly scrutinised with joint discussions and reflections with the other authors. In stage 3 the codes were developed into themes which described the experiences of stroke survivors, informal carers (film and interviews) and NHS staff. Each data set was examined independently, and, consistent with the approaches of Farmer et al. [33] and Nurjono et al. [34]. The final themes were checked with AO and SM against the data; following this, the findings were triangulated using a convergence matrix. This process involved examining the convergence and dissonance of findings across different data sources with SM and AO [35,36].

Results

Characteristics of participants

At the time of observation, both wards accommodated a similar case mix of patients. Each ward featured one two-bed bay, with the remaining patients housed in individual rooms. Patients requiring closer clinical observation were assigned to beds in the shared bay. To conduct observations, the two researchers (NJ and LB) moved in and out of participants' rooms. Breakfasts were prepared in the ward kitchen by the housekeeper or nursing staff and delivered to patients' rooms by a staff member.

Six participants were interviewed: two members of the stroke rehabilitation team (P1, an Occupational Therapist; P2, a Rehabilitation Assistant), two stroke survivors (P3 and P4), and one stroke survivor interviewed alongside their carer as a dyad (P5/C6). The stroke survivor and carer provided consent for a joint interview. Additionally, five staff members, two stroke survivors, and one informal carer participated in filmed interviews. The stroke survivors consented to be filmed in their homes, while the NHS staff were filmed at their respective hospital sites (Sites 1, 2).

Overview of themes

We identified five key themes that shape stroke survivors' eating and drinking experiences: social influences, physical support, personalisation, normalisation, and psychological impact (Figure 1). These themes reflect the multifaceted challenges and opportunities present in stroke unit mealtimes, offering a holistic understanding of the physical, emotional, and social dimensions involved.

While closely interconnected, each theme was analytically distinguished to highlight specific influences: for example, *social influences* encompass environmental and interpersonal dynamics (e.g., noise levels, interactions with others), whereas *physical support* focuses on the hands-on assistance and

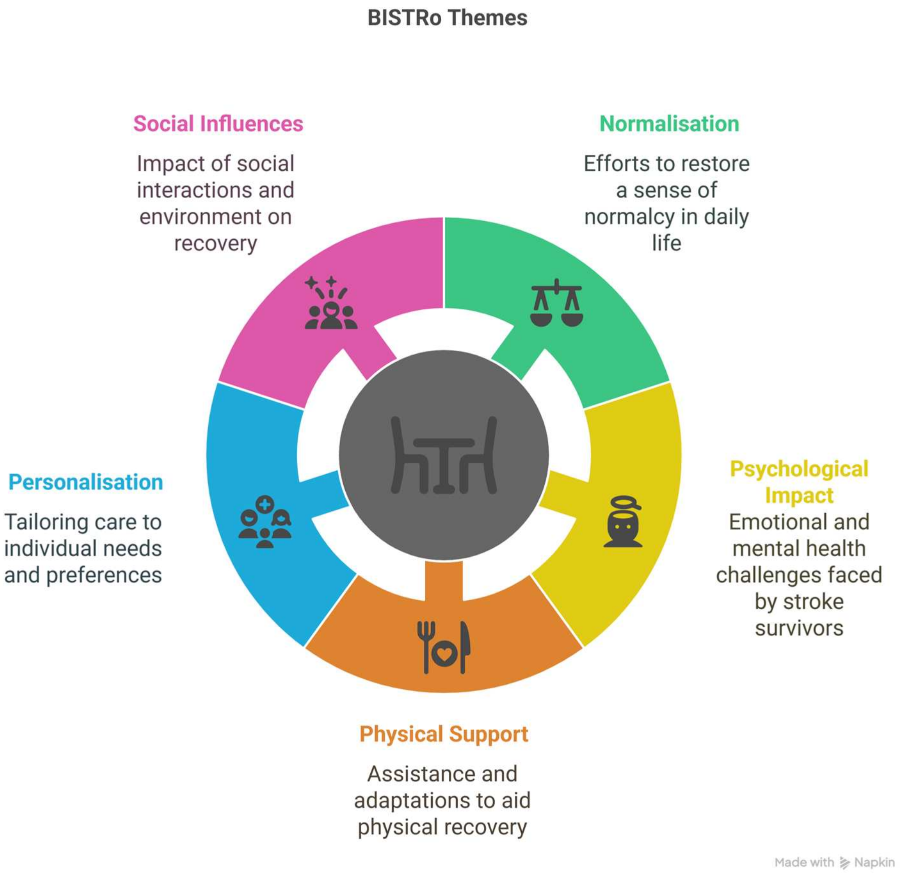

Figure 1. Five themes that shape stroke survivors' eating and drinking experience.

adaptive equipment used to aid physical recovery. Separating these allowed us to unpack the distinct, yet overlapping, ways these factors shape survivors' mealtime experiences.

Figure 1 illustrates how these five themes orbit and interact around a central concern: the mealtime experience. Each theme both influences and is shaped by this central process, underscoring the complexity of improving eating and drinking in stroke care. This interconnected framework suggests that addressing one area in isolation is insufficient; an integrated, multi-dimensional approach is essential to meaningfully enhance the experience and recovery of stroke survivors.

Social influences, including the environment

Patients with stroke often experience isolation, exacerbated by limited staff availability and logistical challenges such as navigating long corridors and competing priorities. In settings where communal dining was not available, patients frequently attempted to eat independently with minimal support, as staff prioritised essential care tasks, exemplified by this patient.

> I always order things that I can use with one hand. I can't hold a knife in my left hand, and you do not get offered any help. The choice is limited due to difficulty with using my left hand. (Field Notes Ward 1)

The absence of shared dining spaces, which had been repurposed during the COVID-19 pandemic and not reinstated, intensified the sense of isolation. Patients ate alone in their rooms, with one likening the experience to imprisonment. While some preferred private dining due to discomfort in group settings, many expressed a desire for social interaction to mitigate loneliness.

In contrast, in settings where communal dining was available or discussed as a future goal, staff consistently recognised its value. Observations and filmed interviews highlighted how shared meals fostered a sense of community and normalcy among stroke survivors. For instance, a speech and language therapist noted the therapeutic value of seeing others with similar challenges, while an occupational therapist emphasised the social and emotional support it provided. Staff spoke passionately about the positive impact of social dining and expressed a strong desire to reinstate ward dining rooms.

> I feel people are very alone in their difficulties and can feel quite low, so seeing that there are other people who are also struggling with the same things and engaging with one another would be really valuable. (Speech and Language Therapist Film).

A Rehabilitation Assistant (P2 Interview) emphasised the psychological benefits of social dining, noting it fulfils a natural human instinct and enables staff to support multiple patients simultaneously. An Occupational Therapist (P1 Interview) strengthened this view, observing that socialising with other stroke survivors could provide peer support.

> Lots of people say that they just feel that if they're with another stroke survivor, they feel that somebody understands them, that they're not alone in what they're going through (P1 Occupational Therapist Interview).

Physical support

Difficulties with eating independently were a recurring challenge for many stroke survivors, with both observations and interviews highlighting the lack of consistent support and limited access to adaptive devices. These barriers not only affected nutritional intake but also threatened patients' sense of autonomy and dignity during mealtimes. During observations in Ward 1, a patient eating breakfast in bed struggled to sit upright, with his stroke-affected arm hanging off the bed. Staffing shortages limited the ability to assist with the physical aspects of eating and drinking, despite staff discussing prioritising support. Adaptive devices like plate guards or specialised cutlery, acknowledged by staff as essential, were not consistently provided. One patient suggested the benefit of having such tools readily available.

> They always gave you an adapted spoon as well, so that was good, you didn't have to ring down and say I can't do it (Stroke Survivor 2 Film).

Despite these challenges, patients appeared determined to manage as much as possible on their own. The following exchange and observation exemplify the desire for independence.

> The patient sees me enter the room (NJ)
>
> He says, “This damn right hand” (Patient B).
>
> “What’s troubling you (NJ)
>
> “I’m worried about dropping food” (Patient B)
>
> He shows me that he has some movement in his right hand but weakness in the upper arm. He tries to hold a spoon and can grip it with his fingers, but he does not have the power or strength to move the arm on his own. He is attempting to lift the affected hand to his mouth. The spoon falls out of his hand onto the bed, but he tries again (Field Notes Ward 1).

Three other patients (during observations) reported difficulties handling food and using standard hospital cutlery. Notably, neither patients nor staff were observed discussing or addressing the need for assistance, such as cutting up food, nor were any adapted devices used such as plate guards, specialised cutlery, or non-slip mats, which were available on both units, offered.

Personalisation

All five staff (Filmed Interviews) emphasised the importance of individualised, person-centred rehabilitation. The Psychology Assistant (Film) shared her perspective on the significance of person-centred care.

> I think it maybe it’s about considering what this means for the individual so thinking about what their personal goals are, is there something specific that they want to achieve if you’re working with someone, and this might not necessarily be an aspect that you deem to be important, but they have that willingness to work (Psychology Assistant Film).

Staff highlighted key aspects of person-centred care. The Speech and Language Therapist (Film) and the Nurse (Film) stressed personalisation to enhance patient experiences, while Occupational Therapist 1 (Film) emphasised creating individualised care plans documenting eating habits and preferences, and Occupational Therapist (P1 Interview) discussed accommodating personal preferences, such as involving family members in bringing familiar items like preferred teabags. Across all data sets, addressing individual preferences was seen as crucial to improving food and drink consumption.

An absence of data on addressing cultural needs was particularly notable. Only one participant (Nurse, Film) highlighted the importance of cultural considerations, suggesting that hospitals could improve the patient experience by offering more culturally sensitive breakfast options to create a sense of familiarity for individuals from diverse backgrounds. One participant (P3 Interview), originally from Pakistan, expressed her preference for spicy food and described hospital food as “lacking in flavour.” Similarly, a patient participant (P5 interview) and informal carer (C6 Interview) discussed the need to add spices to improve hospital food especially as changes to taste sensations post-stroke, meant the need for stronger flavours. Beyond this, there was minimal data on the personalisation of food and drink to accommodate cultural or religious requirements. This could have been that only two of the eleven patients were non-white.

Patient participants had mixed views on food choices; some found the menu satisfactory, while others felt it was limited, particularly for those with dietary restrictions like gluten-free or pureed diets. Observations noted the absence of tools, such as picture-based menus, to assist patients with aphasia. Staff acknowledged the importance of offering choice but noted limitations. An Occupational Therapist (P1 Interview) remarked that “*it wasn’t a hotel, and options were limited*,” while a Rehabilitation Assistant (P2 Interview) stressed the need for more flexibility to support diverse tastes. The menu choice was linked to self-sufficiency, with one patient (Film) struggling to eat enough due to difficulty expressing hunger or completing menus independently. An informal carer (Film) shared how her husband’s inadequate food intake affected his energy and highlighted the importance of involving family members, who better understood their loved one’s preferences.

Portion size was a key concern, with preferences varying widely among participants. A nurse highlighted how smaller portions could prevent patients from feeling overwhelmed and encourage eating.

> You put a whole plate down, and she thinks, 'I can't eat that,' so she doesn't eat any of it. But if we put 1/3 of that down, she probably would have eaten it and might even have some dessert after (Nurse, Film).

Normalisation

In five of the eight filmed interviews (with staff and patients), participants reflected on the enjoyment and emotional significance of food and drink. A nurse (Film), for instance, shared personal stories of cooking with his grandchildren, highlighting how these experiences strengthened their bond and deepened his appreciation for the emotional connections tied to food. This personal insight informed his empathetic approach to supporting stroke survivors in navigating challenges related to eating and drinking. He emphasised the role of familiar comfort food in humanising patients and helping them reclaim a sense of normality. The rehabilitation assistant (P2 Interviews) described how she perceived patients were using interactions during meal times to gauge and normalise their recovery:

> I think they can maybe draw encouragement and support from each other and particularly in that conversation talking about where they've progressed, maybe what they're finding difficult, just normalising the situation for them, and showing them. Yeah, I think the main thing for me is showing them that they're not alone in this (Participant 2 Interviews).

An informal carer (Film) described her efforts to recreate her husband's favourite home-cooked meals while he was in the hospital, choosing familiar dishes and supplementing hospital meals with food brought from home. She recognised the significant role food played in providing comfort and emotional well-being. Similarly, other patient participants (P3/P4 Interviews) emphasised the importance of food as a normalising experience during their hospital stay.

Patients across all three data sets (Observations, Interviews, Film) described how sharing meals with others evoked a sense of *home*, highlighting the normalising effect of familiar routines within the clinical environment. Dining together was not only a social activity but also a powerful reminder of everyday life outside the hospital, contributing to a sense of comfort, identity, and emotional stability. Participants spoke about the meaning of food as a shared experience, often expressing that mealtimes were among the few things they could look forward to. These reflections provide insights into how the act of eating and drinking with others can restore normalcy, foster connection, and support psychological recovery after stroke.

Normalisation was helping individuals to emotionally adjust to life in the hospital either by creating environments and experiences that felt familiar and comfortable or aligning experiences with pre-illness routines and maintaining a sense of self.

Psychological impact

Eating and drinking difficulties were often linked to negative emotions like embarrassment, loss, and frustration.

> They are doing everything here for you that they can do but there's no way, as good as they are, that they can experience the pain that you're going through, I don't feel very sociable at the moment, it is frustrating not being able to do the simple things for yourself. (P4 Interview).

Both patients and staff highlighted the indignity of needing meal assistance, especially when visible aids (e.g., plastic aprons) were used. While P3 and P4 (Interviews) expressed comfort with assistance, both patients in the filmed interviews felt highly embarrassed, emphasising the sensitive nature of mealtime support and its potential psychological impact. Conversely, the social aspect of mealtimes, particularly shared dining with other stroke patients was seen as having a positive psychological impact. Patients reported (Interviews, Film) feeling motivated, encouraged, and supported when eating with others, suggesting that communal meal times mitigate some of the negative emotions associated with eating difficulties.

Discussion

This study highlights critical aspects of the lived experiences of stroke survivors within acute stroke units, focusing on the interplay of psychological, social, and environmental factors influencing eating and drinking. Findings suggest the need for approaches which facilitate personalisation, foster social interaction, and enhance the dining environment to support rehabilitation outcomes and overall well-being. Although dysphagia is a common clinical concern following stroke, it was not explicitly discussed by participants in this study. Patients, carers, and staff did not raise swallowing difficulties directly, and references to modified textures or fluid consistencies were limited. Some participants mentioned a preference for stronger flavours or described general adaptations to meals, but these were not framed in terms of swallowing impairments. This absence may suggest that dysphagia-related challenges were either effectively managed, perceived as routine, or overshadowed by other more salient aspects of the mealtime experience. Below, the findings are contextualised within the broader literature, with an emphasis on implications for clinical practice and future research.

Hospital environments and mealtime support

The challenges posed by hospital layouts and routines were evident, with staff interactions often limited to task-oriented activities such as meal delivery or medication administration. This aligns with Ottrey's et al. [37] ethnographic exploration of geriatric wards, which identified tensions between hospital structures and environments and the delivery of holistic mealtime care. The lack of communal dining spaces, exacerbated by the COVID-19 pandemic, emerged as a significant barrier to fostering good nutritional intake, social interaction and peer support. Communal dining, however, fostered social interaction, peer support, and a sense of normality, helping patients feel less isolated. This perspective is supported by a systematic review by McLaren-Hedwards et al. [38], which suggests there are potential benefits of communal dining, to improve psychological well-being, peer connections, and nutritional uptake in elderly care and rehabilitation wards. Additionally, Robertson et al. [39] reinforce the importance of enriching ward dining environments in acute stroke wards to enhance oversight and patient experiences during mealtimes.

Barriers to autonomy and dignity

Stroke survivors frequently encountered barriers to autonomy and dignity during meals, including inadequate assistance, limited adaptive tools, and restricted food choices. These challenges mirror previous findings [5,18] and highlight the importance of providing tailored interventions such as adaptive cutlery and communication aids for menu selection [37,40]. By addressing these practical needs, healthcare providers could empower patients to regain independence and enhance their mealtime experiences.

Food preferences and portion sizes also intersect with autonomy and dignity, as they represent patients' ability to exercise choice and maintain identity through meals. Several participants emphasised the value of culturally relevant and flavour-rich foods, particularly in light of altered taste perceptions post-stroke. When such preferences were overlooked, participants felt a loss of control and satisfaction, which may compound feelings of dependency. Notably, these concerns were largely absent in observational data, suggesting that while deeply meaningful to individuals, they are not always recognised in routine care. This reflects Stroebele and De Castro's (2004) findings on the importance of aligning meals with pre-stroke habits and cultural contexts, reinforcing the need to view food choice and portion size not only as nutritional issues but also as integral to preserving dignity and supporting autonomy.

Symbolic and social value of food

Beyond the physical setting or support provided, mealtimes carried deep symbolic and personal significance for many participants. Food was not viewed solely as sustenance but as a source of comfort, identity, and emotional expression. Participants described shared meals as moments of connection and pleasure, reminders of life beyond the hospital and expressions of cultural familiarity and routine. This aligns with Mennell et al. [41]; Plastow et al. [42] and Murcott [43], who have argued that food practices are deeply embedded with social and symbolic meaning. These findings also resonate with [44] who observed similar sentiments in older adults within long-term care, and [45] whose review emphasised how meaningful mealtime rituals can humanise institutional settings and foster emotional recovery. While mealtime environments may shape these experiences, the symbolic meaning ascribed to food reflects a more personal and existential dimension of recovery affirming identity, continuity, and social belonging.

Psychological impacts of mealtime experiences

Psychological impacts, both challenging and empowering, were central to understanding the experiences of stroke survivors with eating and drinking difficulties. Feelings of isolation, embarrassment, and diminished dignity were common, particularly when individuals required assistance or struggled to eat independently [40,46].

Yet alongside these difficulties, many participants also demonstrated significant psychological resilience and adaptability.

Mealtimes became a space where emotional recovery could begin to take shape not only through the act of eating, but through relational and observational learning from others. Patients drew encouragement from witnessing peers facing similar challenges, which fostered a sense of shared experience and coping. These subtle but meaningful interactions contributed to rebuilding confidence, reframing identity post-stroke, and nurturing hope [47]. The research suggests that addressing both the emotional and practical aspects of mealtimes and creating supportive, autonomy-enhancing environments, goal-focused approach could foster a psychologically empowering context for recovery [48,49].

Implications for practice

This study suggests several practical strategies to improve the mealtime experiences of stroke survivors. First, the reintroduction of communal dining spaces should be prioritised to foster social interaction, normalise eating experiences, and provide peer support. Second, consistent access to adaptive equipment, such as specialised cutlery, plate guards, and non-slip mats, alongside comprehensive staff training in their appropriate use, is essential to enhancing patient autonomy. When staff are confident in identifying and using such tools, they can better support patients in eating independently, reduce frustration, and promote dignity during mealtimes. This not only facilitates nutritional intake but also fosters a greater sense of control and self-efficacy for stroke survivors during their recovery.

Third, culturally sensitive menu options and personalised meal plans could address diverse patient needs and preferences, improving satisfaction and intake. Additionally, incorporating communication aids for menu selection could alleviate frustration, particularly for patients with aphasia. However, further research is needed to explore these ideas.

Beyond the practical aspects, healthcare providers should view mealtimes as opportunities for therapeutic engagement. By creating supportive environments that address the physical, social, and psychological dimensions of eating and drinking, stroke units can play a pivotal role in facilitating recovery and enhancing quality of life.

Strengths and limitations

A key strength of this study is its multi-method design, which integrated observations, interviews, and filmed interviews to provide a comprehensive understanding of mealtime experiences in stroke units. The triangulation of findings across data sources enhances the credibility of the results and provides a richer understanding of this complex phenomenon [33,50]. However, the study's scope was limited to two hospital sites in a single region, potentially restricting generalisability. Additionally, the perspectives of non-English-speaking patients and those with severe cognitive impairments were not captured, highlighting the need for future research to address these gaps.

Conclusion

This study illuminates the multifaceted challenges and opportunities associated with eating and drinking difficulties in acute stroke units. Significant barriers such as isolation, limited personalisation, and inconsistent access to adaptive tools were identified, while communal dining, culturally sensitive menus, and individualised support emerged as promising strategies. Addressing these practical, social, and psychological dimensions of mealtime experiences can empower stroke survivors to adapt and thrive, ultimately supporting their recovery and enhancing their quality of life. Future research should explore the implementation of these strategies across diverse settings and with participants from culturally diverse backgrounds to inform broader improvements in stroke rehabilitation.

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Trial registry

Clinicaltrials.gov registry NCT05102812

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