An exploration of hydration care for nursing home residents living with dementia

Title

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Abstract

Background

Older adults residing in nursing homes are vulnerable to dehydration. Residents living with dementia can experience additional challenges, making it difficult to independently consume sufficient fluids.

Aims

To describe the experience of hydration care for nursing home residents living with dementia.

Methods

Observations of hydration care were conducted between 06:00 and 22:45 on one care home unit. Twenty-two residents with dementia were eligible for observation. Conversations with staff and relatives provided further insights. Data were analysed using thematic analysis.

Findings

Hydration care provision was highly routinised with little flexibility. Residents received limited support to express individual choices, and staff missed opportunities to provide drinks. More fluid was consumed when care staff developed strategies to encourage fluid intake.

Conclusion

Key factors to optimise hydration care include providing individual support to encourage fluid intake and expression of choice; flexible care routines; and focus on communication and teamworking.

Background

Providing safe and adequate nutrition and hydration to care home residents is an essential care requirement. Recent data from the United Kingdom which measured dehydration in care home residents found 18% to 20% to be clinically dehydrated (Jimoh *et al*, 2019). This is supported by research which has found residents average fluid intake to be inadequate (Namasivayam-MacDonald *et al.*, 2018; Wilson *et al.*, 2020). Residents living with dementia may have difficulty in obtaining and consuming fluids due to a high prevalence of dysphagia (Easterling and Robbins, 2008), change in appetite and food/drink preferences (Kai *et al.*, 2015), and the inability to communicate preferences or recognise drinks (Ikeda *et al*, 2002).

Individuals with dementia are likely to be reliant on others to support them with everyday tasks, including the preparation and consumption of food and drink. In care settings it is not only the nutritional content of the food and drink provided which is important but also the provision of adequate support by staff and a pleasurable dining experience (Barnes *et al*, 2013). The familiarity of mealtimes, which is often linked to family traditions and cultural heritage, are an important link to a sense of self (Evans *et al*, 2005).

Employing observational methods in dementia research allows for a wider representation of experience as individuals who have communication issues or difficulties in recalling their experiences can be included (Cowdell, 2006). Collecting descriptive data which aims to represent the experiences of individuals within the context they reside is useful for improving care services, with data describing practice shared with staff so it can be explored, actioned, and used to inform interventions (Leslie *et al*, 2014).

The aim of this descriptive observational study was to capture and describe the resident experience of hydration on a care home dementia unit. This study formed the first exploratory stage of a two-

phase service evaluation and improvement project which had the overall aim of optimising hydration care in this setting.

Methodology

Design

A descriptive study using qualitative observational methods. Observations of hydration care activity, alongside conversations with staff and relatives of residents, were used to build a picture of current practices within the care home.

Setting

A privately owned care home in London comprising approximately 150 rooms. The home had a Care Quality Commission (CQC) rating of 'good' at the time of the study. Observations took place on one 33-bed unit where most residents' primary care need was dementia. The unit manager, a registered nurse (RN), was present weekdays between 8:00 and 17:00. In addition, two RNs worked day shift 8:00 to 20:00, and one RN worked night shift 20:00 to 8:00. There were three senior healthcare assistants (SHCA) employed on the unit, each shift normally had one SHCA present. The ratio of healthcare assistants (HCA) to residents was 1:6 during the day shift and 1:10 during the night shift. Additional HCA, allocated to specific residents who required 1:1 care, were present on both shifts.

Participants

Inclusion criteria for observation were residents living with a diagnosis of any form of dementia and any member of the care team involved in the provision of hydration care. Diagnosis of dementia was identified through care records with confirmation from the unit manager. Residents were not included if they were in receipt of end-of-life care or percutaneous endoscopic gastrostomy feeding; were on fluid restriction or unwell on the day of observation.

Methods

Ethical approval

Ethical approval was gained from the university Research Ethics Committee. The Health Research Authority categorised the study as service evaluation, as such submission to national research ethics committee was not required. Local permissions and honorary contracts for research staff were received from the care home. This work was funded by the Abbeyfield Research Foundation.

Data collection

Non-participant observations were conducted by members of the university research team, all had previous experience observing hydration care in this setting. The qualitative observational approach focused on the potential influence of the environment of care, interactions between groups, and care processes (Mulhall, 2003). Detailed field notes were kept regarding hydration practice, including any relevant conversations with care staff and resident's relatives. Pseudonyms were used when recording field notes. Observations mainly took place in communal areas, with care behind closed doors not observed. Care home staff and resident's relatives were aware of the purpose of the researcher's presence.

Data collection took place in February and March 2018. At the time of observation there were 31 residents on the unit, aged between 59 and 101 years old. Of the 31 residents, 24 (77%) had a diagnosis of dementia with two of these residents receiving end of life care. Therefore 22 residents (71%) were eligible for observation. Observation periods were scheduled between 6:00 and 22:45 in order to include times when the majority of hydration care occurred.

Data analysis and interpretation

Thematic analysis was used to analyse field notes, an inductive approach allowed for the generation of categories and themes closely linked to the data (Braun and Clarke, 2013). Field notes were

transcribed, read, and re-read in order to explore themes salient to the provision and experience of hydration care. Categories were refined and coding reviewed throughout the process, NVivo 11 software was used. Excerpts from field notes are used to represent the findings. Credibility and trustworthiness were enhanced by research team review of transcripts and themes.

Findings

Observations were performed across eight days for a total of 43.5 hours. Thematic analysis of field notes found three main themes, containing a total of eight subthemes (Figure 1).

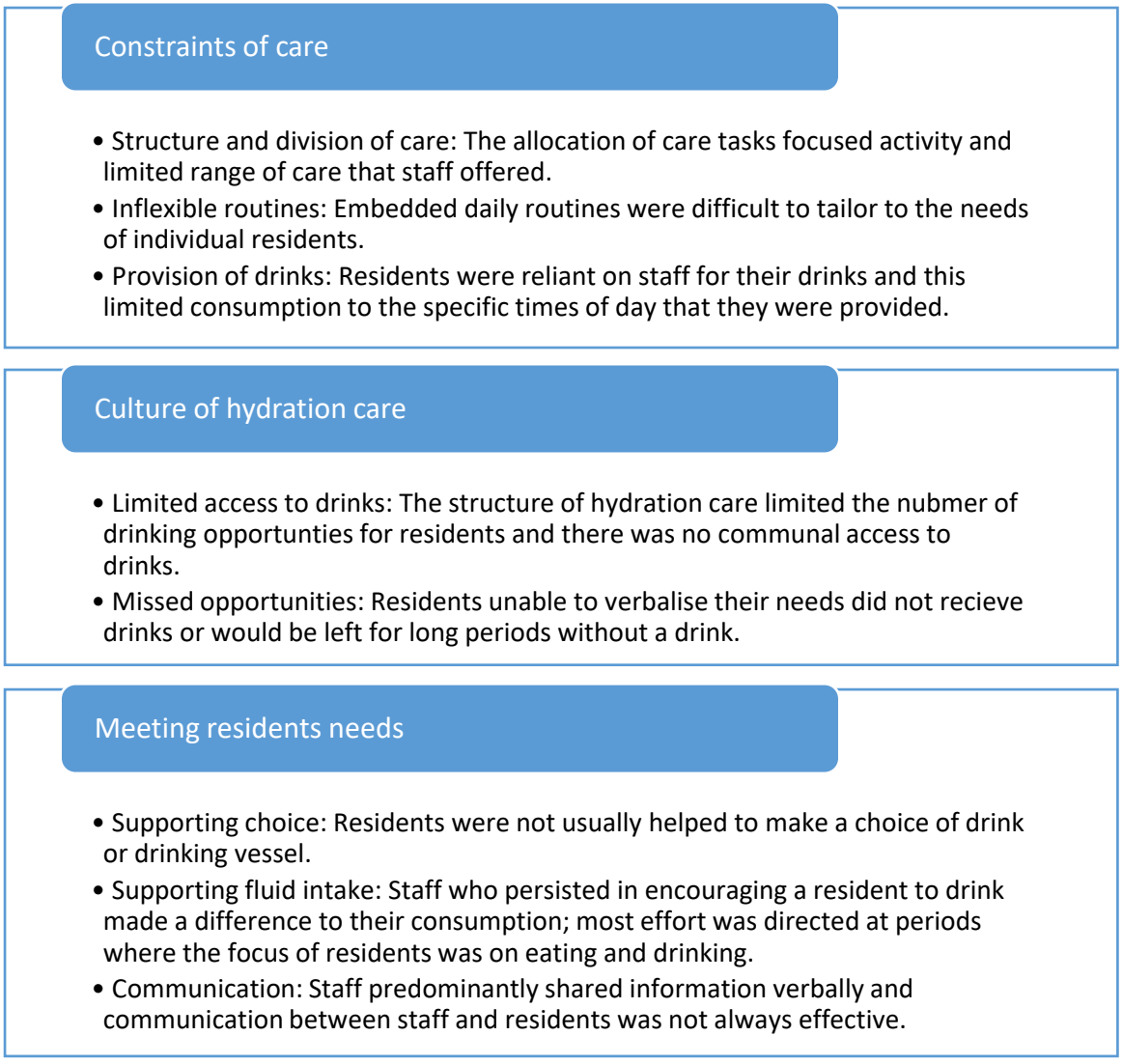

Figure 1: Themes and sub-themes surrounding the experience of hydration care for care home residents living with dementia

1) Constraints of care

Structure and division of care

The organisation of care was built around specific activities, with HCA allocated to specific residents for whom they provided personal care. Assisting residents at mealtimes involved a separate allocation arranged by the SHCA. Ensuring written allocations for each HCA solidified responsibility.

> *(The SHCA) said it needed to be written as people don't do things unless they are written, she said unless the resident was on their allocated corridor the HCA wasn't always interested in feeding them. One HCA said staff should leave that kind of attitude at the door.* [Field note 06]

For small tasks, such as providing a drink, some HCA would assist any resident regardless of their allocation. Others drew a distinction between resident's being 'one of mine' and those allocated to other staff, with activities arising from outside of their allocation seen as burdensome. Thus, some HCA perceived their role as part of a team whilst others were focused on care division according to individual allocations.

Inflexible routines

Staff found it difficult to adapt care activities to fit residents with disrupted routines, such as sleeping during the day. Although staff expressed some flexibility in providing meals and care to suit residents, in reality this was difficult to achieve.

> *(HCA3) says they try to adapt to the resident, but it is hard. She says it must be harder for the resident as they don't know what is what. She says it is hard for staff also as they want*

to help them and carry out their personal care and give them food and drinks. [Field note, HCA 03]

It appeared staff felt an expectation to provide care as indicated by normal daily routines. This pressure seemed to arise from within the carers themselves, there was no observed insistence from senior staff. Staff wanted to actively provide care as this was central to their role and felt powerless when unable to do so.

Provision of drinks

Residents were reliant on staff to provide all of their drinks. Most hydration activity occurred at specific times: breakfast, mid-morning, lunch, mid-afternoon, dinner, and evening. During mealtimes residents in the dining room were served a drink after sitting down. Drinks were refilled if the HCA remained vigilant to noticing empty glasses, but this varied between staff. Residents who ate in their own rooms received meal trays and HCA needed to prepare a drink to take on the tray.

(SHCA) says the HCA must make sure there is a drink, she says everything needs to be on the tray otherwise you may mean to go back to get a drink but you could get called away and the resident may not then get a drink. [Field note 07]

In practice drinks were not always taken on meal trays. This was particularly evident for new or agency staff as there was no supervision by other staff to ensure that this practice occurred.

2) Culture of drink provision

Access to drinks

Each resident room had a plastic jug, usually filled with water, and a glass. These were often located on a side table and residents were not observed to serve themselves using these items. Other drinks

were kept in the kitchenette which was designated as a staff-only area, this meant residents, relatives and visitors relied on staff to obtain drinks for them.

> *(A relative) said family used to be allowed in the kitchenette but now there is a sign on the door saying no family or visitors are allowed in. She says there is usually someone in the kitchenette she can ask for what she wants, or she will go and find a member of staff to help her.* [Field note 01]

Staff were not permitted to consume the food or drink provided by the home thus staff did not drink socially with residents.

Missed opportunities

Following mealtimes or tea rounds residents' drinks tended to be cleared away and additional drinks were not offered until the next opportunity.

> *Breakfast has finished, there are two residents sat in wheelchairs in the lounge. They are sat in front of the television … One resident shouts 'help' repeatedly. This resident has no drink. The other resident is holding an empty glass of milk in his hands.* [Field note 02]

Some residents were able to verbalise their needs and were observed to request drinks from HCA, whereas those that could not ask were often left without a drink between opportunities.

3) Meeting residents needs

Offering choice

When drinks were served preferences were not often sought from residents. Drinks rounds consisted of the verbal offer of a cup of tea and no other options. Specific requests expressed by residents were not always fulfilled, resulting in decisions being made on their behalf.

> *One resident asks for coffee, but the HCA offers apple juice instead, the resident says 'ah have you run out?' and the HCA says 'something like that' … Afterwards the HCA said to me that she didn't really want the resident to have coffee as she thought it might keep her awake.* [Field note 06]

There was also a lack of choice around drinking equipment. Some residents received their drink in a teacup one day and feeding cup the next. Lack of clear information regarding what type of drinking vessel suited each resident contributed to provision of unsuitable equipment.

Supporting fluid intake

If a resident refused the offer of a drink, the HCA would usually serve one anyway. However, fluid consumption increased when HCA persisted in encouraging residents to drink:

> *The HCA asked Paul if he wanted a cup of tea, Paul said no, he asked if he wanted juice, Paul said no … The HCA left the bedroom … He returned with a feeding cup of apple juice, he sat on the edge of the bed next to Paul and asked again if he would have some apple juice. Paul took a sip from the feeding cup, and another until he had finished the cup. The HCA then asked if he would like a cup of tea, Paul said yes.* [Field note 06]

Times when residents were in the process of drinking or eating were recognised by HCA as key moments to promote further intake as residents were concentrated on the task. One of the HCA

talked about needing to "*catch residents when they are ready to eat, you need to make the most of the opportunity*" [Field note 08].

Communication

Communication between staff was primarily verbal, with key information shared at shift handovers. Staff relied on verbal communication when seeking specific information about residents, such as drink preferences. Conversations between staff and residents tended to be repetitive, often consisting of repeated questions. Residents unable to request a drink or unable to express a clear answer to the offer of a drink were sometimes left without one.

> *A HCA removes a resident's plate and asks him repeatedly if he wants more milk, or a juice, or water, the resident has no coherent answer. The HCA leaves and does not bring the resident another drink, he sits brushing crumbs off the tablecloth in front of him and looking out of the window at the rain.* [Field note 01]

One HCA took the evening drinks round as an opportunity to ask each resident how they were feeling before offering them a drink, this gave them an opportunity to share their feelings and concerns.

Discussion

This study found a complex interaction of individual, organisational, and environmental factors which impacted hydration care. Activity on the unit was tightly structured, with routines based around various tasks. This task-oriented culture is typical in the sector (McGreevy, 2016). The inherent inflexibility of this structure meant staff struggled when resident's behaviour did not follow conventional patterns. Previous research by Persson and Wästerfors (2009) found nursing home staff reported competing priorities between the need to individualise care for residents and the

pressure to work to an institutions expected schedules. This study observed that when staff needed to adapt their caring routine for residents with disrupted schedules this appeared to conflict with the way they perceived their active caring role.

Drinks were provided at specific times of day and outside of these times residents often sat with no drink. Previous research by Godfrey *et al* (2012) found 'repetitive and rigid' routines of drink provision impaired fluid provision for residents. The awkward layout of the unit meant residents in their rooms received fewer drinks than those in communal areas. This demonstrates how the physical layout of care homes can also affect food and drink provision. This is supported by Philpin *et al* (2014) who found care home layout could impact food service and sense of community. This may be an important consideration for care homes when designing and organising mealtimes for residents.

Allocations to tasks formed an important role in the division of care and recognition of responsibility. The allocation of tasks is often key in embedding activities and ensuring they are performed (Wilson *et al*, 2020). The approach to hydration care was inconsistent, with some staff willing to assist residents regardless of their allocation. Thus, hydration of residents was not a common goal and differing approaches led to confusion, and sometimes resentment, between staff. Key to teamwork in care settings is a respect for others and willingness to assist one another to achieve a common goal (Forbes-Thompson *et al*, 2006). This may be a key area to focus upon in staff training with the aim of integrating it as part of the work culture in this setting.

The unit kitchenette was industrial in design and designated as a staff-only area. This led to a dependence on care staff and lack of autonomy for residents. Research suggests that residents benefit from safe equipment which allow for drinks to be dispensed independently (Winterburn, 2009). In addition, staff were unable to drink with residents which led to a loss of the social aspect of

drinking. The act of sharing a drink with others can promote acknowledgment and a sense of caring between staff and residents (Fjær and Vabø, 2013). These offer potential areas of focus for the dementia care setting which may help to encourage fluid intake.

Opportunities to provide residents with drinks were missed by care staff, residents who were unable to verbalise their needs were at particular risk. In addition, reliance on verbal communication resulted in a lack of choices presented to residents and had the potential to generate inconsistencies in care. This supports Milte *et al* (2017) who note that as dementia progresses, and the ability to verbalise one's needs diminishes, individuals are vulnerable to experiencing a loss of opportunity to express choice. One idea which may foster choice and decision making with relation to hydration is that of creating a simple Drinks Menu for care staff to use with residents (Wilson *et al.*, 2018). Another aspect where lack of choice was observed was with the provision of assistance and assistive devices such as feeding cups. Previous research suggests that the design and availability of appropriate drinking vessels can influence fluid intake (Bak *et al.*, 2018; Wilson and Dewing, 2019).

Some care staff did however employ different techniques to encourage fluid intake. Individualized strategies and verbal encouragement are key when assisting residents with dementia (Chang and Roberts, 2011). One HCA was observed to use the time when offering drinks to interact meaningfully with the residents, though from our observations this was unusual. Godfrey et al (2012) found that although care staff may see offering a drink as an opportunity for personal interaction, in practice this did not occur.

Conclusion

Although this picture of hydration care emanates from one care home unit it is likely there will be commonalities found in similar settings across the health and social care sector. Exploring the provision of care from within the setting allows for identification of areas for improvement.

Key areas highlighted in this study include building flexibility into the care routine in order to promote fluid provision and developing staff skills in recognising and supporting resident's hydration needs. This requires a greater focus on resident experience, including provision of choice, support for decision making, and suitable equipment. Alongside this, systems are required which support ease of information sharing and communication within teams. The findings from this study have the potential to inform training of care staff and the development of interventions to optimise hydration care.

Key words

Older persons; Dementia care; Hydration; Drinking; Residential care

Key points

You must supply 4–6 full sentences that adequately summarise the major themes of your article.

- Exploring the experience hydration from the perspective of those living with dementia is important in order to optimise care practices to suit their needs
- Routinised practices around fluid provision in care homes are inherently inflexible which negatively impacts fluid provision
- Care home residents experienced few opportunities to express individual choice and preferences regarding drink provision
- Ineffective communication had the potential to lead to missed opportunities to provide fluids to residents

Reflective questions

Please supply 3–5 questions based on your article that readers can use for reflective notes or discussion, which may be used to count towards their NMC revalidation. These should be open-ended questions.

1. How do you know whether the fluid intake of your patients/residents is too low?
2. What practical changes to hydration care could you implement in your work setting to improve your patients/residents' fluid intake?
3. What are the support needs of your patients/residents with regards to hydration? Do you think you need different strategies depending on their level of need?

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