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Feature Article

Attitudes, perceptions and experiences of mealtimes among residents and staff in care homes for older adults: A systematic review of the qualitative literature

Ross Watkins, MSc [a,b,*], Victoria A. Goodwin, PhD [a,b], Rebecca A. Abbott, PhD [a,b], Amy Backhouse, MSc [a,b], Darren Moore, PhD [a,b], Mark Tarrant, PhD [a,b]

[a] University of Exeter Medical School, College House, St Luke's Campus, Heavitree Road, Exeter EX1 2LU, UK
[b] National Institute for Health Research (NIHR) Collaboration for Leadership in Applied Health Research and Care (CLAHRC) South West Peninsula

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ABSTRACT

Addressing problems associated with malnutrition in care home residents has been prioritized by researchers and decision-makers. This review aimed to better understand factors that may contribute to malnutrition by examining the attitudes, perceptions and experiences of mealtimes among care home residents and staff. Five databases were searched from inception to November 2015: Medline, Embase, PsychINFO, AMED, and the Cochrane Database. Forward and backward citation checking of included articles was conducted. Titles, abstracts, and full texts were screened independently by two reviewers and quality was assessed using the Wallace criteria. Thematic analysis of extracted data was undertaken. Fifteen studies were included in the review, encompassing the views and opinions of a total of 580 participants set in nine different countries. Four main themes were identified: (1) organizational and staff support, (2) resident agency, (3) mealtime culture, and (4) meal quality and enjoyment. Organizational and staff support was an over-arching theme, impacting all aspects of the mealtime experience. Mealtimes are a pivotal part of care home life, providing structure to the day and generating opportunities for conversation and companionship. Enhancing the mealtime experience for care home residents needs to take account of the complex needs of residents while also creating an environment in which individual care can be provided in a communal setting.

PROSPERO Registration: CRD42015025890.

Background

Approximately 15,600 facilities in the United States provide residential care for an estimated 1.4 million older adults.[1] In the UK, more than 400,000 older people live in a care home,[2] including almost 20% of the population aged 85 and over.[3] According to the 2011 Census of Population in Canada, nearly 30% of over 85 year olds live in special care facilities compared to about 1% of the population aged 65–69, illustrative of the increasing need for care facilities among the oldest old.[4] As the number of older people increases globally, there is likely to be a greater demand for residential care. In Australia, care home places have grown steadily since 1995 to reach approximately 185,000 in 2011, including an increase of more than 2500 over the previous year.[5] In less developed countries where there is not an established infrastructure of residential care facilities, family members have traditionally borne the responsibility for the care of their elderly relatives. However, as the inhabitants of developing countries move to urban centers in search of greater employment prospects, the need for residential care is likely to increase in the communities they leave behind, highlighting the burgeoning global nature of care provision for older adults and the issues that accompany it.[6]

Over half the people admitted to hospital in the UK from care homes are reported to be malnourished,[7] having low body weight,

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* Corresponding author.
E-mail address: Ross.Watkins@exeter.ac.uk (R. Watkins).

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unplanned weight loss or diminished nutritional intake.[8] The causes of malnutrition are complex and involve a number of (often inter-related) factors associated with underlying medical conditions (e.g., dysphagia, gastrointestinal disorders, drug interactions, cachexia).[9] Physical factors (e.g., disability, poor dentition), psychosocial factors (e.g., anxiety, depression) and food choice, quality and access issues can all also adversely affect food intake and increase the risk of malnutrition.[9–12] Malnutrition is particularly prevalent among (although not restricted to) residents with cognitive impairment, and this can exacerbate the decline in their functional abilities.[13] Critically, because it is associated with a poorer quality of life, increased morbidity and ultimately a greater risk of mortality,[14] malnutrition is a key indicator of the health and wellbeing of older adults in care. Therefore, there is a need for a greater understanding of these various influences on food intake in order that interventions may be developed to reduce the risk of malnutrition. The current systematic review examined the potential environmental, cultural, social and behavioral influences on nutritional status based on the views and opinions of mealtimes held by residents and staff in care homes for older adults. As mealtimes are an integral part of day-to-day life in care homes, these psychosocial 'ingredients' may be an important catalyst for the health of residents, in terms of food delivery and general wellbeing.

The need to improve the nutritional status of older people living in care homes has long been recognized.[14–16] However, it is unclear which interventions are most effective at reducing morbidity and improving wellbeing. Two recent systematic reviews suggested that simple changes to the mealtime environment (e.g. the style of food service, seating arrangements and the playing of music) can positively influence nutritional outcomes in care home residents and the behavioral and psychological symptoms of dementia (BPSD).[17,18] However, the conclusions of the reviews were limited because of the small sample sizes, lack of randomization, and inadequate control for confounding variables of included studies.[12,17,18] Furthermore, descriptions of mealtime interventions often lacked detail, limiting understanding of how they work and how they can be replicated. Even in those studies where a more comprehensive account of interventions was given, an emphasis on single intervention components, such as food quality improvement or an altered dining environment,[12] likely fails to account for the complexity of malnutrition causes[9] or the diverse range of influences on the mealtime experience more generally.[12] The lack of specificity is a common problem when reporting on intervention studies,[19] and this has implications for their practical effectiveness: it is important to account for the whole effects of an intervention, how it varies among recipients, between settings and over time, and what causes this variation.[20]

The aim of this review was to extend the research on mealtime interventions by synthesizing the available qualitative data from interview studies involving care home residents and staff. By uniquely bringing together the attitudes, perceptions and experiences of mealtimes in care homes as reported by residents and staff themselves, the review aimed to document experiential components that may structure the implementation of mealtime interventions, and more generally highlight some of the features of mealtimes that can ultimately impact the nutritional status and health and wellbeing of care home residents.[21]

Methods

The systematic review was conducted in accordance with Centre for Reviews and Dissemination (CRD) guidelines on undertaking reviews in healthcare.[22] The protocol was registered with the International Prospective Register of Systematic Reviews (PROSPERO) (CRD42015025890).

Literature search and eligibility criteria

The search strategy used a combination of MeSH and free-text terms (Supplementary Appendix 1). Five databases were searched from inception to November 2015: Medline, Embase, PsychINFO, AMED, and the Cochrane Database. Searches for grey literature were conducted in the Health Management Information Consortium (HMIC) and the Social Policy and practice (SPP) databases. No date or language restrictions were applied to the database searches. All qualitative studies, or mixed-method studies with a qualitative component, which used a recognized method of data collection (e.g., focus groups, interviews) and analysis (e.g., thematic analysis, grounded theory, framework analysis), and explored the attitudes, perceptions and experiences of mealtimes in care homes for older adults were included. This encompassed studies set in both care homes and nursing homes that accommodated residents with and without cognitive impairment. Studies with a purely quantitative design, conference abstracts and commentaries were not included in the review.

Two reviewers (RW, AB) independently screened titles and abstracts, and then full-text articles. EndNote X7.0.2 software was used to manage references throughout the review; duplicates were removed and forward and backward citation checking of each included article was conducted.

Data extraction

Data on each study's population, setting, study methods and focus were collected using a bespoke data extraction form (Table 1). Data were extracted by one reviewer (RW) and checked by a second reviewer (AB). Study quality was assessed using the Wallace criteria for qualitative studies[23] by one reviewer (RW) and checked by a second (AB).

Data synthesis

Thematic analysis was used to synthesize the data across studies. This approach offers a flexible, yet rich and detailed account of data, enabling the researcher to identify, analyze and report patterns within it.[24] The results sections of each paper were considered the primary source of data, and each line of text was coded according to its meaning and content. This line-by-line coding generated a code bank from which data could be organized into meaningful groups (themes) based on their similarities and differences.[25] Two of the included studies were also coded and organized into themes by a second reviewer (AB) to ensure that both reviewers (RW and AB) were deriving similar meaning and content from the text. These themes were then independently reviewed, categorized and defined as themes and sub-themes by both reviewers. Sub-themes provided structure to complex themes, and allowed inference of a hierarchy of meaning within the data.[24] Participant quotes are used to illustrate emergent themes.

Results

The systematic search returned a total of 253 articles, all of which had title and abstracts available in English. The titles and abstracts were screened for relevance by two reviewers (RW and AB), who independently classified each paper using the eligibility criteria. Full text copies of all potentially relevant studies were then obtained and independently double-screened. EndNote X7.0.2.

Table 1
Description of included studies.

Study	Country	Stakeholder group	Setting	Setting number/sample size	Study methods	Focus of study
Adams et al (2013)[26]	USA	Nursing home residents	Skilled nursing facility (SNF)	3/104	Standardized interview with two open-ended questions	Dining preferences
Bennett et al (2014)[27]	Australia	Speech pathologists, care managers, nursing staff, assistants in nursing, care, domestic, and support staff	Skilled nursing facility	10/61	Semi-structured interviews followed by qualitative content analysis	Mealtime management
Bennett et al (2015)[28]	Australia	Nursing home residents and staff	Residential aged care facilities (RACFs)	2/43 residents ($n = 14$), staff ($n = 29$)	Questionnaires, observations followed by post-positivist, reality-oriented inquiry	Mealtime management
Bungaard (2005)[29]	Denmark	Residents	Living units (housing 6–8 older adults)	1/5	Ethnography with observation, semi-structured interviews followed by hermeneutic analysis	Mealtime experience
Chaudhury et al (2016)[30]	Canada	Residents, care aides and nurses	Long-term care facility (LTC)	2/27 residents ($n = 10$), care aides and nurses ($n = 17$)	Pre- and post-renovation observations, staff survey followed by thematic analysis	Dining environment
Dunn and Moore (2014)[31]	UK	Care assistants	Nursing homes	2/5	Semi-structured interviews followed by thematic analysis informed by positioning theory	Feeding assistance
Harnett and Jonson (2016)[32]	Sweden	Residents, staff and managers	Nursing homes	5/45 stakeholder numbers not specified	Focus groups, semi-structured interviews, observations using frame analysis	Mealtime experience
Hewitt et al (2007)[33]	Guyana	Residents and staff	Residential care home	1/14 residents ($n = 14$)	Focus groups, semi-structured interviews followed by analysis using a framework approach	Mealtime experience
Kenkmann and Hooper (2012)[34]	UK	Residents and staff	Residential care home	4/48 residents ($n = 16$), staff ($n = 32$)	Observation of meal and drink provision, unstructured individual interviews followed by content analysis	Restaurant-style meal provision
Kofod (2012)[35]	Denmark	Residents	Residential care home	4/16	Semi-structured and unstructured interviews, observations followed by content analysis	Mealtime experience
Kofod and Birkemose (2004)[36]	Denmark	Residents, relatives and staff	Stay-and-living environments (SLEs)	4/26 residents ($n = 19$), staff ($n = 7$)	Interviews and observations followed by parallel analysis of themes	Dining environment
Osinga and Keller (2013)[37]	Canada	Dietetic students	Long-term care homes (LTCs)	Not specified/9	Semi-structured interviews followed by thematic analysis	Mealtime experience and feeding assistance
Palacios-Ceña et al (2012)[38]	Spain	Residents	Nursing homes	4/26	Semi-structured and unstructured interviews using a phenomenological approach and the Giorgi proposal for analysis	Mealtime experience
Pasman et al (2003)[39]	The Netherlands	Nursing staff	Nursing homes	2/106 residents ($n = 60$), nurses ($n = 46$)	Participant observations, interviews followed by case study analysis	Feeding assistance
Philpin et al (2014)[40]	UK	Nursing staff and residents	Residential care homes	2/45 staff ($n = 15$), managers ($n = 4$), residents ($n = 16$), informal carers ($n = 10$)	Focus groups, interviews followed by thematic analysis	Dining environment

software was used to manage references throughout the review. Once the searches had been run, results were exported to EndNote and any duplicates were automatically identified and removed. This process was assisted by hand searching for duplicates. Forty studies were retrieved as full text, ten of which met the inclusion criteria, along with five studies identified through grey literature and forward and backward citation searches[26–40] (Fig. 1). Of the 30 articles discarded at full text screening, reasons for exclusion included incorrect study type ($n = 10$), where there was no qualitative research component to the study, and different outcome measures ($n = 7$), where the attitudes, perceptions and experiences of mealtimes among residents and staff was not a measured outcome. The remaining thirteen articles were discarded either because they were commentaries or because they were reviews of other studies.

Study characteristics

Five of the studies were comparison studies,[29,30,33–35] including a longitudinal study which explored the transition of older adults from their own home to the care home[35]; a mealtime experience study comparing a small living unit to that of a traditional nursing home[29]; a study that assessed the effects of pre- and post-environmental renovations on the mealtime experience[30]; one that reported on the subjective outcomes of changes to the resident menu and food sourcing[33]; and a study that explored the experiences of residents and staff following new 'restaurant-style' meal provision.[34] The other ten studies were cross-sectional studies, four of which incorporated data collection from observations (e.g., field notes) alongside data obtained from interviews and questionnaires.[28,32,36,39] These ten studies elicited perspectives on meals and mealtime management from a broad range of stakeholders, including speech pathologists, care managers, nursing staff, assistants in nursing, care, domestic and support staff. They explored the extent to which the management of mealtimes met the needs of residents, considering factors such as the dining environment, the quality of the food, and the role of staff in providing mealtime assistance and facilitating social interaction. One of these studies was concerned specifically with exploring the problems facing nurses in providing feeding assistance to people with dementia,[39] and another study investigated dietetic students' experiences of providing mealtime assistance to care home residents.[37]

The studies involved 580 participants, of whom more than 300 were residents of care or nursing homes and approximately 250 were managers or staff (the exact number of stakeholder cohorts is unclear because one study interviewed 45 participants, but did not specify how many of these were residents, staff or relatives[32]). Twelve of the fifteen studies included residents, although residents reported their views and opinions in only eight of these. One study included data from the relatives of care home residents.[35]

Study quality

The quality of the included studies was evaluated using the Wallace criteria (Supplementary Appendix 2), which is intended to enable judgments to be made about the strength of qualitative research.[23] The criteria comprise twelve questions that attempt to address the validity and reliability of studies that vary in design, context or setting, and theoretical perspective, thereby synthesizing the evidence in way that is transparent and explicit. In this review, all of the included studies had clear research questions, used an appropriate study design to address the research questions, and adequately described the context or setting of the study, as specified by the Wallace criteria. The theoretical or ideological perspective of the authors was explicit in ten of the studies and provided a logical link to the design of the study, the methods employed, and ultimately the outcomes. Data collection was adequately described in all of the studies with the exception of Bundgaard,[29] which did not specify any details of the observation. In eight of the studies, the lack of detailed description meant that it was not clear that data collection was rigorously conducted to ensure confidence in the findings, though the findings reported in nearly all the studies were substantiated by the data. Nine of the studies made reasonable claims about the generalizability of their findings, with many reflecting on the impact of the dining environment on mealtimes, the attitudes of staff, the juxtaposition of an institutionalized setting and the pursuit of 'homeliness', and the behavioral, cultural and economic challenges of providing individual care among a collective. Five studies failed to address the limitations of the methods used or findings (Adams et al[26]; Harnett and Jonson[32]; Hewitt et al[33]; Kofod[35]; Pasman et al[39]), and in four studies (Bundgaard[29]; Dunn and Moore[31]; Kofod and Birkemose[36]; Osinga and Keller[37]) it was not clear that ethical issues had been adequately addressed or that the confidentiality of participants had been respected. In summary, the included studies were of mixed quality. Some of the research was reported poorly, insufficiently describing the rigor of data collection, the limitations of the methods used and the data collected, and adherence to ethical practice. On the basis of evaluation using the Wallace criteria, five of the fifteen studies may be considered to be of high quality.

Qualitative synthesis

Of the fifteen studies included in this review, four focused on evaluating the mealtime experience from the perspective of residents only, three elicited the views and opinions solely of carers and eight collected data from a combination of staff and residents.

The analysis revealed four themes that reflect the overall attitudes, perceptions and experiences of residents and staff in relation to mealtimes in care homes: (1) organizational and staff support, (2) resident agency, (3) mealtime culture, and (4) meal quality and enjoyment (see Fig. 2). Organizational and staff support was an over-arching theme, having the most profound influence on mealtimes. Together, these four themes highlight the complex nature of the mealtime experience and its impact on care home residents' health and wellbeing. Participant quotes, used to illustrate themes, are taken directly from their original texts unless stated otherwise.

Organizational and staff support

The role of staff and the influence of care home policy defined this theme. The support provided by staff was undermined in a number of ways, adversely affecting the mealtime experience and resulting in negative perceptions of it. Mealtimes were recognized by staff as directly impacting quality of life: "I would say that in residential care it's perhaps right up there with priority number one or two … it is the one thing they wake up for most days" (Bennett et al, p. 330).[27] At the same time, mealtimes were highlighted as putting particular strain on the provision of care, with staff commenting that there was a lack of organizational support at mealtimes and that they felt pressured to complete routine tasks during long shifts.[27,31]

> *Member of staff – "Doing a twelve hour shift … three days, all after each other … the third day it is really tiring … If we don't have as many residents in then they drop the staffing levels so you're kinda working three of us, instead of maybe four of us and that other person makes a big difference … You go home and its tiring, it's tiring … feeding 'em, that can be a slow process cos they're not very fast at eating … you can't be forcing food down 'em can yer? You*

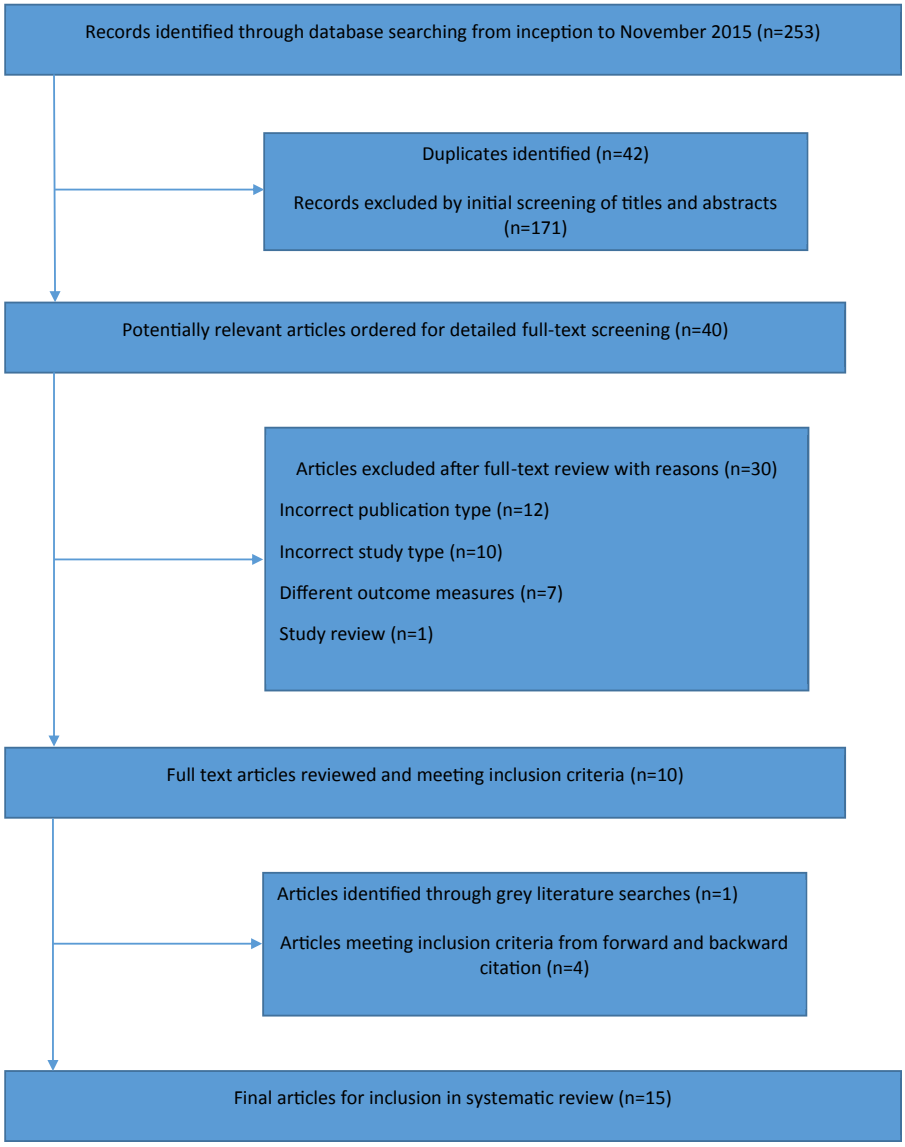

Fig. 1. Prisma flow diagram.

just wish that you could have a bit of extra help [more staff]". (Dunn and Moore, p.5)[31]

It was acknowledged that staff have multiple duties but, at mealtimes, may do little more than serve the food.[34] Time demands, shift changes and a poor relationship between staff was also associated with a breakdown in communication between staff at mealtimes.[27] Perhaps as a result of some of these pressures, staff expressed frustration at providing mealtime support, suggesting that some residents can be ill-tempered or obstructive.

Member of staff – "You take 'em the meal and they say 'Ooo, I didn't ask for that', you have to sort of bite your tongue and say 'well I asked you y'know', as polite as I can be because some o' 'em can be cantankerous, so you have to think, how do I word it? 'you did ask for this meal when I asked you' … but then obviously you just have to take it back and just say, 'they don't want this meal'. Them's the sort of things that you can lose your, to bite your tongue with". (Dunn and Moore, p. 5)[31]

Some staff also said that they felt undervalued, and were not always treated respectfully by residents: "One feels like a servant at this unit … He who sat here, he could very well have taken a spoon himself. But I don't want to be rude" (Harnett and Jonson, p. 16, reviewer edit).[32] In contrast, staff also expressed empathy for residents, adopting a resident-centric perspective on care provision: "You know their self-esteem is poor, if you have a stroke and you can't manage, to have someone, a young person feeding you must be terribly frustrating". (Bennett et al, p. 330)[27]

Resident agency

This theme was concerned with individual choice, control and autonomy. Food choice was linked to personal identity: "To tell me what I have to eat, how I'm supposed to do it and with whom, is like telling me to forget who I am, and to be another person" (Palacios-Cena et al, p. 486).[38] At the same time, resident choice and autonomy was restricted by health and safety policy in the home, which caused frustration and irritation on the part of residents and staff.

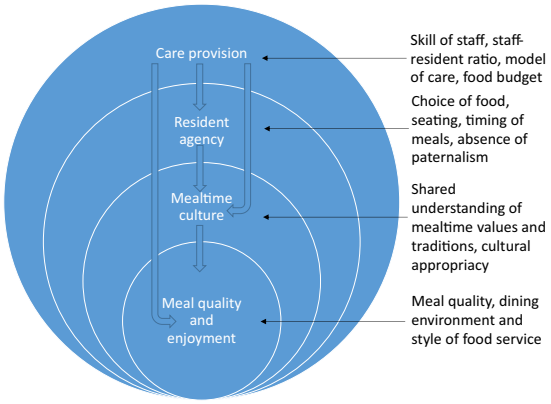

Fig. 2. Conceptual model for mealtime interventions.

Member of staff – "If he's at risk of choke he should be on a soft diet … because of this Mental Health Act that has come into y'see, we keep havin' to go back each time 'n' ask 'em again … obviously if they get annoyed then you walk away and you write in his notes, has refused … He knows he can't walk on the corridors without a frame, but he will … he'll say 'I know I 'aven't got me frame, but I'm nearly in't dining room', and I'll say 'that's not the point [resident's name], you need your frame'." (Dunn and Moore, p. 6)[31]

Being able to choose when, where and how to eat gave residents control over their lives: "Sometimes I feel like eating in my room, being able to choose what to eat … It makes me feel like I am at the wheel." (Palacios-Cena et al, p. 486).[38] However, the very essence of communal living necessarily limited choice for the individual and compromised resident autonomy:

Interviewer – "How is the menu designed?"

Participant – "Well, we have meetings we do, and we get residents' suggestions for what they would like to eat. And then we try to build a menu together with the residents and the officer in charge."

Interviewer – "Are there any difficulties with that?

Participant – You always get one that's not happy don't you?"

Participant – "You can't please everyone can you?" (Philpin et al., p. 782)[40]

Even in care homes where residents were consulted on their food preferences and were involved in designing the menu, compromise over meal preferences was inevitable and individual choice or traditional values were sometimes overlooked for the sake of collective provision.

Member of staff – "Some care recipients are old fashioned, you know, chicken on Friday. It can't be on a Saturday. You explain, yes but that was the way you had it at home. We can't do it like that here." (Harnett and Jonson, p.8)[32]

There was a suggestion that resident choice could be undermined by the paternalistic attitude shown some by staff who claimed to know what residents liked when discussing menu-planning: "… it's a combination … the team (name of staff member) and the kitchen staff. 'Cos we know what they like. If they like curry we'll put it on. But not many of them like curry so it's an option. We know what they like you see" (Philpin et al, p. 782).[40] In contrast, paternalism was also perceived in a positive light, indicative of staff 'knowing' their residents and harnessing a sense of belonging among those in their care, as one resident asserted: "The girls know what I want and they don't bring me things I don't like" (Philpin et al, p. 782).[40]

Another issue affecting resident agency was mealtime seating arrangements, which appeared to be based on a number of factors including the judgment of staff, resident behavior, and the opinions of residents.[32] Residents had mixed feelings about their table companions with some expressing indifference ("We talk when we meet at the dining table and apart from that we have nothing in common"), others harboring a negative view ("I don't like to have my meal in the company of strangers and people I don't like"), while others struck a more conciliatory tone ("of course there are residents you prefer to others, but we are all friends") (Kofod and Birkemose, p. 131).[36] Relations between residents, which are often brought into focus at mealtimes, highlight the challenge of generating a convivial and tolerant atmosphere in an institutional setting for residents with physical and emotional needs:

Resident – "She was at my table, where I used to eat, she started crying. I said, "What's up with you?" – There's no tears, but she started crying all the time and that Thai, that Chinese woman, when she coughs, she can't half cough! Sticks her tongue right out and coughs all over the table, you know, so I like to get in and out now." (Kenkmann and Hooper, p. 102)[34]

This scenario is also indicative of a mealtime culture that is often defined to some extent by residents' illnesses and the challenges that their resultant behavior may present. Furthermore, it demonstrates how the themes of resident agency and mealtime culture are interwoven, and in particular, how resident interactions can impact on the mealtime culture.

Mealtime culture

The socio-cultural significance of mealtimes emerged as a clear theme in the literature, with residents and staff expressing shared meanings and memories of food, and perceiving mealtimes as offering a sense of social normality and an opportunity for social interaction. Mealtimes were regarded as a focal point by residents and staff, around which all the other daily activities were scheduled[27,38]:

Resident – "I don't need a clock, when we are called for breakfast it is 9 o'clock, lunch is around one, and in the evening when the noise of carts is heard in the kitchen it's eight o'clock …" (Palacios-Cena et al., p. 485)[38]

As well as providing a structure to the day, mealtimes were seen to contribute to the broader "social fabric" of the care home.[36] Indeed, a mealtime culture that encouraged social interaction was recognized by staff as being critical to the health and wellbeing of residents, with one carer (a speech-language pathologist) suggesting that the psychological and social needs of residents may outweigh nutritional needs: "I think people would give up optimum nutrition in order to have a meal that's less nourishing in the company of friends". (Bennett et al, p. 330)[27]

The socio-cultural significance of mealtimes was reaffirmed by residents who discussed missing their "home" or "spouse's" cooking,[26] and who described their enjoyment of preparing a "cooked dinner" or "proper meal", invariably consisting of roast meat, potatoes, vegetables and gravy.[40] Notably, the shift in responsibility for meal provision appears to extend beyond the enjoyment of the meal itself to the satisfaction derived from the preparation of it and the role of the cook as provider or host, as one resident articulated: "… I feel less of a woman … I'd been cooking for 70 years … it was my job … and now what is my role?" (Palacios-Cena et al, p. 486).[38] For some residents, meal preparation was an integral part of their everyday life before admission to a care home:

Interviewer – "Before you came in here did you used to do a lot of cooking?"

Participant – "Well yes, I used to. Lived with my mother didn't I (laughs). So I did what she said … and the family, the boys, liked their food, always have."

Interviewer – What kind of things did you cook for them?

Participant – "Well dinner … cook a dinner and soups they used to like – home-made soups. Laver bread we used to like – oh yes …. laver bread oh yes we used to love laver bread."

Interviewer – "How did you cook it?"

Participant – "Well you fry it in the frying pan … lovely". (Philpin et al., p. 776)[40]

Traditional or familiar food in the care home, as rooted in national culture, was reflected on positively by residents and staff alike.[26,40] The time-honored meal appeared to provide a significant association with their collective memories of family mealtimes before coming into care, reinforcing residents' identities, and the socio-cultural importance attributed to family meals. As one resident stated: "There is no greater wealth for somebody than being able to eat and feed his family" (Palacios-Cena et al, p. 486).[38] Traditional foods and customs also played an important role in helping to maintain social cohesion[41] and, for some, contributing to wellbeing.

Member of staff – "And of course we were putting sherry in with the mince pie mix and some of the residents were having a sherry. Things were lovely. We had Christmas carols on at the time we were doing it, and obviously the Christmas decorations. And it was a lovely, lovely atmosphere, you know". (Philpin et al., p.779)[40]

Meal quality and enjoyment

The final theme that emerged from the analysis was concerned with the physical aspects of the mealtime, and referenced meal quality and the dining atmosphere, including meal options, menu variety, food palatability and sensory appeal, and also the physical dining environment and the type of food service.

For staff, meal quality was associated with a healthy, balanced diet: "We look to try and give them the five vegetables a day and all this you know, health options and … They're pretty lucky, they have fresh meat every day, they have plenty of vegetables, five a day" (Philpin et al, p.778).[40] However, it was acknowledged that promoting a healthy diet in the care home could be at odds with resident choice, and that ultimately, it was important that residents were offered what they perceive as a pleasurable diet: "They like the same things as us – the bad things. But if they're not going to eat anything healthy it's better for them to have a bit of something" (Philpin et al, p.783).[40] For their part, residents alluded to the pleasure derived from the tastiness of food, a marker not just of meal quality, but also a connection to their past.

Participant: "[The chips]… which are not tasty again. Everybody says that. Well the majority of them – the people that I've spoken to – they say there's no taste with the chips at all. What it is I think they cook them in oil… I think, I don't know …"

Interviewer: "And what did you cook yours in?"

Participant: "Well you know if I cooked bacon and I'd put the fat from the bacon with the chips then it was nice and tasty."

Interviewer: "Oh my – very nice (both laugh)." (Philpin et al., p. 777)[40]

Meals were discussed in relation to their presentation and variety, which staff expressed a desire to enhance.[27] The quality of the food was described in one study as unpalatable[33] and in another by staff as indefensible at times.[32] Despite this, staff reported presenting a united front to mitigate resident complaints,[32] conscious of the repercussions.

Member of staff – "Sometimes there is quite a wastage in some of the meals … it makes you feel uneasy when they complain … they [residents] can go down and complain to the, err, boss". (Dunn and Moore, p. 5)[31]

Staff also implied that offering residents an appealing meal can be challenging, particularly when they require a soft food diet.

Member of staff – "She looked at the [pureed] food a bit as if to say, 'what's that?' but then we explained to her, you know, this is what you've got to have because you nearly choked, y'know, an' now she's, 'oh right' an' she'll eat it". (Dunn and Moore, p.6)[31]

Enhancing the décor of the dining room was associated with improving meal enjoyment in a number of studies,[42–46] contributing to positive experiences that extend beyond nutritional intake alone. In one study, care staff reported improved resident mood following the introduction of new furnishings and lighting, and the addition of wooden-look flooring, decorative items and wall paintings to create a more homelike environment.

Members of staff – the "better physical environment with good furniture and with matching colour has better effect on residents' mood. High backed chairs, and beautiful dining tables give a homelike feeling"; "Dining is not just eating and going, let them (residents) celebrate it"; and "residents and staff feel more 'life' in there now". (Chaudhury et al., p. 13, reviewer edit)[30]

The provision of a restaurant-style service which focused on meal presentation, improved surroundings, a wider range of choices, and extended dining-room opening hours was valued by residents in the study by Kenkmann and Hooper.[34] However, while residents appreciated the good food and choice, the restaurant-style service was acknowledged as having its limitations, with some residents expressing a desire for a quieter, more intimate dining experience in the evening.

Discussion

The importance of understanding how complex interventions work across a diverse range of groups and settings has been emphasized.[20] By synthesizing the views and opinions of residents and staff in care homes, this systematic review reveals the complexity of the mealtime experience and highlights some of the 'active ingredients' of mealtime interventions.[47] The multifaceted nature of mealtimes, from the provision of nutritious food through to the creation of a dining atmosphere that provides opportunities for social interaction and resident agency, suggests that food intake, and the wider health and wellbeing of residents, may be unlikely to be improved through the implementation of single-component interventions, such as enhancing meal quality or dining room décor. Rather, this research suggests that care provision, resident agency, mealtime culture and meal quality and enjoyment are all important, interacting factors structuring residents' experiences of mealtimes (see Fig. 2). Organizational and staff support emerged as an over-arching theme in the data and was felt to impact resident agency, mealtime culture, and meal quality and enjoyment directly. Fig. 2 also illustrates the linear relationship between themes, with organizational and staff support impacting resident agency, which in turn help to define

the mealtime culture, and which ultimately influence residents' enjoyment of meals. Although all four themes are important and independent experiential components of the mealtimes, they have a knock-on or cumulative effect on meal quality and enjoyment.

Several studies have sought to increase care home residents' enjoyment of food through changing features of the environment (e.g., creating family-style mealtimes or a restaurant service[34,45,46]). However, while some environmental interventions may reduce anxiety among residents[30] and increase food intake,[42,46,48] the collective nature of mealtimes can restrict the creation of a relaxed and intimate atmosphere,[49,50] and such interventions can undermine resident agency because they may fail to account for individual preferences (e.g., to eat alone).[51] Indeed, a key theme emerging from the current review was that of resident agency and the importance of individual choice, such as when to eat, what to eat, where to eat and with whom. A clear challenge highlighted by this review, therefore, relates to how individual choice and autonomy can be accommodated in mealtime environments which are communal and routinely perceived in a medical in context.[52,53]

A further feature of this review is its highlighting of the pivotal role played by staff in enabling resident nutrition and enjoyment of food. Feeding difficulties are often reported to be a physical barrier to food intake and the maintenance of good nutritional status,[17,27,39] but much depends on the skill of the carer providing feeding assistance, ensuring a consistent and focused approach to eating, and promoting autonomy and dignity.[37] It has also been suggested that the company of care home staff at mealtimes can positively influence residents' nutritional intake[44–46] and social interaction.[53] However, a recent independent inspection of health and adult social care services in England carried out by the Care Quality Commission (2012)[2] found that one in six care homes did not always give residents a choice of food or support them to make a choice, and did not ensure that there were enough staff available to assist residents who needed help to eat and drink.[49] Our review supports these findings and reveals several staff and institutional factors that can undermine the mealtime experience, including insufficient staff support for mealtimes, time/role pressure, confusion over roles and responsibilities, and poor relations with residents.[27,31,32,34]

Drawing on data from nine different countries, this is the first systematic review of qualitative literature in this area and considered a broad range of residential care settings. Future qualitative research should explore how different settings, care models and cultural factors affect the provision of care and the impact that this has on resident and staff experiences. Despite care home residents being the central focus of mealtime interventions, only eight studies included in this review sought the views and opinions of residents themselves. Gaining greater insight into the resident experience is essential to identifying ways of improving care provision and can highlight the potential barriers and facilitators to the implementation of future interventions. Additional insight could also be sought from family carers or the relatives of care home residents, particularly as some residents may be unable or unwilling to articulate their experiences of mealtimes. Finally, given their influence on the mealtime experience, and their ability to inform and affect change, future research should include more input from stakeholders including care home owners or managers, occupational therapists, nutritionists and dieticians, and nursing staff. Involving these cohorts in future research will help to determine the feasibility and acceptability of mealtime interventions, and pave the way for effective implementation.

Conclusion

Mealtimes are a pivotal part of care home life, ensuring good nutritional status, providing structure to the day and generating opportunities for conversation and companionship. However, enhancing the mealtime experience for care home residents is problematic because of the complex needs of residents and the desire to create an environment in which individual care can be provided in a communal setting. This research highlights the areas in which particular attention might be focused: staff recognized the impact of mealtimes on residents' quality of life and stressed the need for greater mealtime assistance; residents coveted choice and valued their autonomy; and both staff and residents alluded to shared mealtime values rooted in traditions and memories of family mealtimes.

Supplementary data

Supplementary data related to this article can be found at http://dx.doi.org/10.1016/j.gerinurse.2016.12.002.

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