REVIEW ARTICLE

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Older patients' perspectives on mealtimes in hospitals: a scoping review of qualitative studies

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The increasing age of populations throughout the world means that healthcare services are faced with new challenges, not least regarding the provision of food during hospital stay. There is a lack of knowledge of how hospital mealtimes are experienced by older patients, and so the aim of this article was to review current knowledge regarding mealtimes in hospitals from the perspectives of older patients. A literature search was performed using seven databases: PubMed, Web of Science, Scopus, Sociological Abstracts, SweMed+, ASSIA and CINAHL with no limits regarding publication date. The inclusion criteria were peer-reviewed articles in English or Swedish that used qualitative methods to examine older patients' (>65 years) mealtime experiences. The Five Aspect Meal Model (FAMM) served as a framework for understanding the complexity behind a mealtime experience. Qualitative content analysis was used as a guide when analysing the material. The search produced 415 studies, 14 of which were included in the review. The findings generated three main themes for understanding how older patients experience mealtimes while in hospital: (1) the food and the food service, (2) mealtime assistance and commensality during mealtimes and (3) the importance of retaining one's independence. The review also clearly indicated a shortage of studies that solely focus on older patients' experiences of their mealtime. More research is therefore needed to be fully able to understand the complex task of providing meals in hospitals.

Keywords: five aspect meal model, hospital, literature review, mealtime experience, older patients, qualitative studies.

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Introduction

The older population in Europe (EU-27) is expected to almost double from 87.5 million in 2010 to 152.6 million in 2060 (1), and in 2050 will likely comprise approximately 30% of the European population (2). In Sweden, it is estimated that one in four inhabitants will be over 65 years of age by 2050 (3), which will present new challenges for Swedish society and its welfare system. One of these challenges will be the increased burden on the healthcare sector. Reasons given include the process of natural ageing and to the onset of diseases that may increase the need for hospital care. In Sweden in 2016, approximately 380,000 patients above 65 years of age were admitted to hospital, with a mean stay of 5.9 days (4). Since the older generation is more prone to malnutrition and malnutrition-related disorders (5), hospitals need to be prepared to meet the changing needs of the population, not only in relation to emergency treatment and general care but also regarding the need to provide adequate nutritional care during hospital stay. Merged data from 12 developed countries revealed that the reported prevalence of malnutrition among older inpatients was 38.7% (6). Malnutrition has been reported to affect length of hospital stay and to reduce quality of life (7), clearly showing the importance of trying to find ways to prevent malnutrition and promote well-being. Nutrition should be seen not only as a significant part in the treatment of malnutrition, but also as a preventative action (8). However, the entire mealtime experience is important, and studies have shown that even if adequate nutrition is provided to the patients, the food is not always consumed (9). This implies that more effort is required to promote positive nutritional care, from production to the serving of the food by staff (10,11). Thus, aspects concerning how the food is served, how it is

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presented and where it is consumed become essential (12,13). This is particularly the case for older inpatients (14,15), since older age groups face more food intake barriers in hospitals than the younger population (15).

There has been increasing research interest in hospital meals and how they are provided to patients. Studies have been performed within the hospital setting to evaluate and explore patients' satisfaction with, for example, mealtime assistance (16,17), protected mealtimes (18), food distribution systems (19-21) and meal-ordering systems (22-24). Other studies have examined how patients rate hospital food in relation to different aspects such as taste, temperature, aroma, texture, variety, portion size and overall satisfaction with food service and service staff (25-30). The most valued aspect for patients regarding the mealtime experience, which also correlates with their overall satisfaction with the food service, differs in the literature; some studies found it to be the overall food quality (13,25-26,29), while others reported that the serving experience was more important (30,31). However, these studies were primarily quantitative studies or did not focus on the older patients' own experiences, and hence can provide only limited understanding of the patients' own voices regarding their mealtime experiences. Qualitative studies, on the other hand, give an opportunity to examine the phenomenon in more depth, to ask follow-up questions if needed and to allow the respondents to talk more freely about the subject at hand (32).

One step towards this can be to elucidate what the older people themselves experience during their hospital stay, and what aspects they find to enhance or diminish their mealtime experience. However, to our knowledge, no literature review has yet been performed with the aim of summarising qualitative studies among older age groups focusing on mealtime experiences in the hospital arena. The aim of this scoping review was therefore to map and review current knowledge regarding mealtimes in hospitals from the perspectives of older patients, by means of the following questions:

- How do older patients experience mealtime in hospitals?
- What do older patients describe as enhancing or diminishing their mealtime experience while in hospital?

Method

A scoping review maps the body of a specific topic and can be used to summarise and disseminate relevant literature, to identify gaps and to suggest further research (33,34). This scoping review followed the steps suggested by Arksey and O'Malley (33): (1) identifying the research question, (2) identifying relevant literature, (3) selecting the studies, (4) charting the data and (5) collating, summarising and reporting the results.

Literature search

A literature search of electronic databases was performed during May 2019 and updated in January 2020. No limits regarding time of publication were set, in order to enable a broad search. The grey literature was not searched. The literature search was conducted by the first author in the following databases: PubMed, Web of Science, Scopus, Sociological Abstracts, SweMed+, ASSIA and CINAHL. These databases represent areas of medical, sociological, public health, meal and nursing sciences. The search terms were the same in each database[1]: "Meals" OR "Mealtime" OR "Mealtime experience" OR "Meal experience" OR "Dining experience" AND "Aged" OR "Elderly" OR "Older people" AND "Hospital" OR "Geriatric care". The literature search also included reading of reference lists and tracking of suggestions made by the databases.

Inclusion criteria

The following criteria had to be met for a study to be included:

1 *The population and setting* covered patients above the age of 65 years who were served meals within a hospital environment. The patients needed to be able to consume solid food (including texture-modified diets).
2 *Qualitative data methods were used* to collect the older patients' own voices concerning their mealtimes (e.g. the food and service) through interviews, focus groups or written comments (not predefined questions). This could be part of a mixed method design.
3 *Original research* published in peer-reviewed journals in the English or Swedish language.

One author (AJ) searched and screened the articles for eligibility, using version 19 of Endnote to manage the references. Articles were excluded if they did not fulfil all the above conditions. If there were any uncertainties, the entire article was discussed between the authors and carefully assessed before it was included or excluded. Due to the aim of this scoping review, the studies were not assessed in terms of study quality (33).

Data analysis

Data regarding year of publication, country, aim/objectives, setting and participants, method and results/conclusions were extracted from each study and sorted into an Excel spreadsheet. Table 1 provides an outline including a summary of the patients in relation to the objectives of the current review.

A qualitative content analysis (35) was performed to elucidate the patients' voices regarding their mealtime experience. The studies were first read several times to get an overall picture (36). All portions of text that

Table 1 Summary of the reviewed studies (n = 14)

Authors (year), country	*Objectives*	*Setting and participants*	*Method*	*Results/conclusions*	*Results in relation to review*
Hope et al. (2017), Australia (42)	'To explore whether food and mealtime experiences contribute to inadequate dietary intake in older people during hospitalization' (p. 6)	Metropolitan tertiary teaching acute care hospital, 6 wards. Patients (n = 25, 65–98 years)	Qualitative phenomenological study with interviews Purposive sampling (patients included if they were observed to eat less than half of their meal offered at lunch) Interviews lasted approximately 30 minutes	Several barriers influenced inadequate food intake among patients with poor food intake. Two main themes ('validating circumstances' and 'hospital systems') represented how the patients rationalised about their poor food intakes and how they felt obligated to accommodate to the inconvenience associated with the systems and inflexibility in the hospital environment. Meal trays were cleared before participants were finished	Patients said that poor appetite was to be expected when in hospital and that the hospital regimen and food service system made them accommodate inconveniences such as pre-ordering meals, overly large portions and meals getting cold before they finish them. The patients expressed concerns that the staff did not seem to care if they did not consume all the food. There were mixed views regarding the importance of food during hospitalisation; some stated that nutrition was unimportant and others said it helped them get better. Increased physical activity could improve both appetite and bowel movements. Discussed the issue of food waste
Baptiste et al. (2014), Canada (43)	'to understand geriatric patients' perceptions regarding meals in a common dining area versus at the bedside' (p. 38)	Geriatric rehabilitation unit Patients> 65 years (n = 8)	Exploratory qualitative study Interviews Interviews lasted approximately 60 minutes	Patients had different views and preferences regarding communal dining. Choice of location was important. Health status and well-being influenced willingness to eat in the communal dining room	Patients identified benefits of dining in the communal dining room, including opportunities to socialise and practise their walking, but also access to help from staff during meals and more access to food. They appreciated being able to eat in their bedroom if they wanted. However, most of them said they did not feel that they had a choice in relation to dining location

Table 1 (Continued)

Authors (year), country	*Objectives*	*Setting and participants*	*Method*	*Results/conclusions*	*Results in relation to review*
Harrysson (2001) Sweden (44)	'to describe and analyse how meals and the eating environment can be experienced in hospital setting' (p. 35)	Geriatric rehabilitation ward Patients (n = 8, 5 female, mean age 75 years, 66–87 years)	Interviews No data on length of interview	Most of the patients were satisfied with the food, though room for improvement were expressed in relation to the food and its preparation. Other patients could both improve the social connection during meals and be a reason for losing one's appetite due to decline in table manners. Patients were not aware that there were different dinner alternative	Patients were generally satisfied with the meals but mentioned some possible improvements regarding how the food was cooked/ prepared. They did not know that they had dinner choices, and did not really think that this would be appropriate. Meal companions could both benefit and worsen one's appetite. They preferred to eat in the dining area, but also wanted the option of eating alone. Their appetites were not at the same level as previously. They expressed wishes for assistance during mealtime, for example a meal host
Sidenvall et al. (1996) Sweden (45)	'to investigate how patients' culturally imprinted values and ideas concerning table manners were expressed in relation to their own deficient ability as well as that of their table mates. Furthermore, the aim was to study the elderly's perceptions of food habits in contrast to food served in the common dining room' (p. 213)	Rehabilitation and long-term care clinic with four wards Meals consumed in a common dining room Patients (n = 42, 23 female, mean age 76 years).	Ethnographic study with interviews The first part of a larger study The interviews covered several areas (eating habits and food habits, covering dishes and drinks, laying a table and manner of serving, table manners and eating competence); in all areas, eating at home was compared to eating in the hospital dining roomop Patients were interviewed on 1–4 occasions Interviews lasted 30–60 minutes	Private perspectives of table manners and food habits were centred around three themes: 'mind your manners', 'appetite for food' and 'be contented and do not complain'. The habitus (cultural perspectives) greatly reduced patients' well-being and satisfaction at common meals. Nurses need to be aware of elderly patients' culture (in relation to meals) and ways of expressing themselves to be able to accommodate and provide culturally congruent care	The older patients strove to keep their independence and simplified their procedures in relation to mealtime. In some cases, this meant eating and drinking less than they would have if they had better motor functions. Table manners were considered important; both their own and those of others. Other patients' table manners could produce discomfort even when the reasons for poor manners were understood. Did not want to waste food, but had difficulty eating all the food on the plate. Did not want to complain: 'When in Rome, you must do as the Romans do' (p 219)

Table 1 (Continued)

Authors (year), country	*Objectives*	*Setting and participants*	*Method*	*Results/conclusions*	*Results in relation to review*
Heaven et al. (2013) UK (46)	'to understand and describe processes that promote or inhibit nutrition in hospitals' (p. 628)	Four UK hospitals across two regional locations focusing on older patients admitted with dementia, for stroke or for fractured neck or femur National Health Service staff (n = 47), stakeholders (n = 6), former patients (n = 2), carers (n = 3)	Interviews with staff and stakeholders, and observations No data on length of interview or observation duration Focus groups with former patients and carers Part of a larger study (the Multidisciplinary Approach to Addressing Malnutrition in hospital, mappmal)	That food work is seen as common sense and the most mundane task to perform	Patients identified mealtimes as a moment when dignity could be threatened, especially if one needed help during the meal
Sidenvall et al. (1994) Sweden (47)	'to investigate individual patients' meals in geriatric care with respect both to the intentions of the nursing staff and assessments of patients, as well as to those patients' experiences and the extent to which they expected to be able to influence the meal situation regarding behaviour and table manners, eating competence and diet' (p. 614)	Two rehabilitation and long-term care wards Meals consumed in a common dining room Patients hospitalised for> 3 weeks (n = 18, 13 female, mean age 81 years), enrolled nurses (n = 21)	Ethnographic study with interviews, observations and recorded data regarding the nurses' documentation of eating and eating prescriptions The interviews lasted 30–60 min and took place on admission and before discharge (or after 6 weeks if the patient remained hospitalised). The interviews covered several areas: eating habits, table manners, eating competence, nursing staff interventions, menu and experiences in the dining room Observations were conducted in the dining room once a week for every patient; no data on observation duration The second report in relation to a previously conducted study in 1991	Staff and patients represented different cultures with respect to table manners and conduct at the table. The staff saw the dining area as part of their workplace, which led to problems in recognising the older patients' needs and wishes. Patients were categorised in relation to eating capability: severe eating problems, moderate eating problems and eating with ease. Each category reflected different perceptions of the meal situation	Patients expressed different opinions about eating in the dining area and were seen in relation to eating ability. The patients did not wish to be involved in menu choices. They wanted to be as independent as possible. Their table manners were often highlighted. The patients expressed concerns in relation to their eating capabilities (eating competence), personal standards of table manners and how they interacted with others

Table 1 (Continued)

Authors (year), country	*Objectives*	*Setting and participants*	*Method*	*Results/conclusions*	*Results in relation to review*
Sellerberg (1991) Sweden (48)	To describe relations between staff and patients in connection with meals.	Two geriatric hospitals, medical facilities specialising in the care of the elderly (8 wards) Patients (n = 87), staff (n = 136)	Interviews and observations Interviews with 223 people (87 patients, 136 institutionstaff) No data on length of interviews or observation duration	Both patients and staff were subordinated to a fixed mealtime. The arrival and departure of the food cart was rigidly fixed. The staff emphasised a working scheme, while the patients felt that it was a mealtime system and they had a right to have their meal on time	Patients wanted to be up and ready for the meal and expected it to be delivered on time. They managed their time in relation to the meal*time*
Xia & McCutcheon (2006) Australia (49)	'to establish what nurses do at mealtimes in relation to the eating practices of elderly patients' (p. 1222)	Two medical wards in a tertiary acute care hospital Nursing staff (n = 50; 26 from ward 1, 24 from ward 2), patients (n = 48 > 65; 23 from ward 1, 25 from ward 2) Of these, 4 nurses and 4 patients were interviewed (2 from each ward), and the others were observed	Descriptive research design Comparative design between two wards, one of which (ward 1) had introduced a change in nursing staff meal break Convenience sampling Observations and interviews, with each ward observed 12 times during one week Interviews lasted approximately 15 minutes	Increased number of staff may not be enough in itself to improve mealtime practice for nurses. Nutrition seemed to receive very low priority on the ward. Nurses need to prioritise mealtime assistance instead of other tasks	The patients said that the hospital food was not bad overall but did not provide enough choice, and some food items were considered be difficult to manage. They felt the meals were too large. They said they received enough help from the nurses
Furman (2014) USA (50)	'to develop substantive theory that describes the social process that influences the eating behavior of hospitalized older adults' (p. 79)	Medical unit of a large acute care hospital in the north-eastern United States. Patients> 65 years (n = 8), healthcare workers (n = 4)	Grounded theory methodology and symbolic interactionism Observation, interview and document review A total of 56 hours of observation, including 30 mealtimes 12 interviews lasting 30–60 minutes Review of eight medical records	The Theory of Compromised Eating Behavior has four stages: (1) older adult self-indication, (2) older adult-health care provider joint action, (3) older adult negotiation with the self and (4) older adult action. 'Enhancing the meaning of food and mealtimes for the hospitalized older adult is imperative if negative outcomes associated with undernutrition are to be ameliorated' (p. 85)	The patients expressed that the food was flavourless and that some of the food provided was not familiar and they did not want to try it. Assistance during mealtime was important, including opening packages, positioning and overall presence and surveillance. They felt that eating while hospitalised helped to maintain health

Table 1 (Continued)

Authors (year), country	*Objectives*	*Setting and participants*	*Method*	*Results/conclusions*	*Results in relation to review*
Dickinson et al. (2005) UK (51), and Dickinson et al. (2008) UK (55)	'to work with staff (using an action research approach) to help them to explore the current mealtime environment on the unit, to explore with staff ways of focusing mealtimes towards the needs of patients and to help staff to make changes to the mealtime environment and their practice' (51: p. 270)	25-bed unit for patients with complex discharge needs. Staff (n = 34), patients (n = 10)	Action research Three focus groups with 19 staff in phase 1 and 15 in phase 3 Interviews with 6 older patients in phase 1 and 4 in phase 3 Observations of six mealtimes No data on length of interviews or observation duration Comments box on the unit for patients, staff and visitors	It is possible to change nursing practice during mealtime. When nurses see mealtimes as important, patients will eat. Three themes influenced patients' mealtime experience: institutional and organisational constraints; mealtime care and nursing priorities; and the eating environment. The action research resulted in changes in nursing practice and the mealtime environment. Staff no longer saw mealtime as a task or a chore that needed to be done	Patients expected the nurses to know about their likes and dislikes. They did not know that they had a choice of eating in the dining room because they had never been asked. They wanted to eat with the staff. They seemed to acknowledge a change in the mealtime regimen, with staff attending more during the mealtime and more choices being presented
Robison et al. (2015) UK (52)	'To obtain multiple perspectives on nutritional care of older inpatients, acceptability of trained volunteers and identify important elements of their assistance' (p. 137)	Two acute wards in the Medicine for Older People Department at a UK university hospital (female patients aged ≥ 70 years) Volunteers (n = 12), nursing staff (n = 17, of whom 3 were interviewed at both baseline and intervention year), patients (n = 10 in baseline year and n = 15 in intervention year), relatives of patients too confused to consent for themselves (n = 5 at baseline, n = 5 in intervention year)	Part of the Southampton Mealtime Assistance Study (54) A qualitative study 1 year before and after the introduction of mealtime assistants on one ward and one control ward Interviews and focus groups Interviews with patients lasted 11–48 minutes; interviews with relatives lasted 20–43 minutes	Introduction of volunteers during mealtime was perceived as beneficial for patients' mealtime care. Results highlighted the contribution of chronic poor appetite to the risk of malnutrition among older people	In the baseline year, few patients had seen the menu, but this number increased after the intervention year. Portion size was a recurring theme. The patients wanted flexibility regarding portion size and wanted to be able to change their current meals. They managed their meals in relation to the loss of appetite they were experiencing. The volunteers were appreciated and thought of as fresh faces

Table 1 (Continued)

Authors (year), country	*Objectives*	*Setting and participants*	*Method*	*Results/conclusions*	*Results in relation to review*
Howson et al. (2018) UK (53)	'to determine the numbers of volunteers required to deliver mealtime assistance across […] four departments and how best to recruit and retain volunteers; to describe and compare the activity and demographic profile of volunteers in the different clinical areas; to determine the barriers and enablers to the mealtime assistance programme from the perspectives of patients, nursing staff and the volunteers themselves and to assess the costs associated with the introduction of volunteer mealtime assistants across these hospital departments' (p. 2)	Nine wards across Medicine for Older People, Acute Medical Unit, Orthopaedics and Adult Medicine departments in one English hospital Patients> 70 years (n = 8), staff (n = 7), volunteers (n = 9)	Extended from the Southampton Mealtime Assistance Study (54) Mixed methods quasi-experimental prospective study with quantitative, qualitative and economic data analysis Evaluation of an intervention with volunteers during mealtime Interviews with patients and staff who had been in contact with the volunteers Focus group with volunteers No data on length of interview	Trained volunteers can provide high-quality mealtime care, releasing valuable nursing time for clinical tasks. The programme was cost-effective. Many patients were in need of mealtime assistance. Patients and staff valued the presence and help from the volunteers. 65 volunteers were in total recruited and helped at 846 meals	Trained volunteers were highly valued by the patients. One patient felt it was particularly important that the volunteers were appropriately trained, managed and monitored (p. 7). Most patients agreed that the nurses had too much to do to provide effective help at mealtimes. Patients suggested that a lack of physical activity contributed to poor nutrition

Table 1 (Continued)

Authors (year), country	Objectives	Setting and participants	Method	Results/conclusions	Results in relation to review
Roberts et al. (2014) UK (54)	'To determine the feasibility and acceptability of using trained volunteers as mealtime assistants for older hospital inpatients' (p. 3240)	Acute female medical ward at a teaching hospital (female patients aged ≥ 70 years) Volunteers (n = 12), Staff (matrons, ward managers, staff nurses and health care assistants) (n = 17), patients (n = 9)	Mixed method evaluation of a training programme for volunteers Part of the Southampton Mealtime Assistance Study Interviews and focus groups No data on length of interview Interviews centred on appetite, making food choices, managing at mealtimes, food intake during this hospital admission, and snacks, drinks and supplements	Volunteers were valued by the patients and the nursing staff. The programme was feasible and acceptable. Volunteers can be recruited and trained to provide mealtime assistance to unwell older inpatients. Twenty-nine volunteers completed the programme and delivered mealtime assistance	The volunteers were highly valued by the patients, providing fresh faces on the wards and promoting good relationships

explicitly discussed the patients' views or that quoted the words of patients >65 in the results sections of the studies were seen as units of analysis (35,36) and were coded in MAXQDA 2020. These units were reread several times by two of the authors (AJ and ÅÖ) and then coded under the aspects in FAMM and by inductive coding as suggested by Graneheim and Lundman (35). These initial codes were then condensed into broader categories based on similarities and meaning by AJ and checked by MN. Finally, the categories were jointly discussed by all the authors and linked into common themes that addressed the question 'How?' and that could illustrate the underlying picture of the patients' experiences (35).

Theoretical and analytical framework – the Five Aspect Meal Model

The Five Aspect Meal Model (FAMM) was developed to serve as a guide when planning meals in commercial settings, to help in creating and understanding what underlies a pleasant meal (37,38). It has been described as a 'tool for understanding and handling the different aspects involved in producing commercial meals and offering the guests the best possible meal experience' (38: p. 90). The FAMM includes the *room* (where the food is consumed), the *meeting* (between the guest and staff as well as between the guests themselves), the *product* (food and beverages) and the *overall management control system* (laws, regulations and the logistics of providing the meal) that together result in the *atmosphere* (37). The FAMM thus covers multisensory aspects of how meals can be understood (39). In recent years, the FAMM has also been used as a valuable framework when approaching meals in hospital settings as well as in the home and in residential care (39-41). The model will therefore be used in this review as a theoretical and analytical framework, since it recognises that a mealtime experience is more than the food presented on the plate. The FAMM will be used when discussing the findings in the studies and will serve as a foundation to understand the complexities of mealtime.

Findings

In total, 14 studies were included in the literature review (see the flow diagram outlined in Fig. 1). The most common reason for exclusion was that the study focused on nutritional interventions or that the main outcome was the patient's food intake, meaning that the focus was not on the patient's mealtime experience. Several articles were also excluded due to solely focusing on the perspectives of other actors such as staff and relatives.

Most of the studies in this review aimed to explore or evaluate the feasibility of using volunteers during mealtime and patients' satisfaction with mealtime assistance (see Table 1). Four studies included solely the voices of

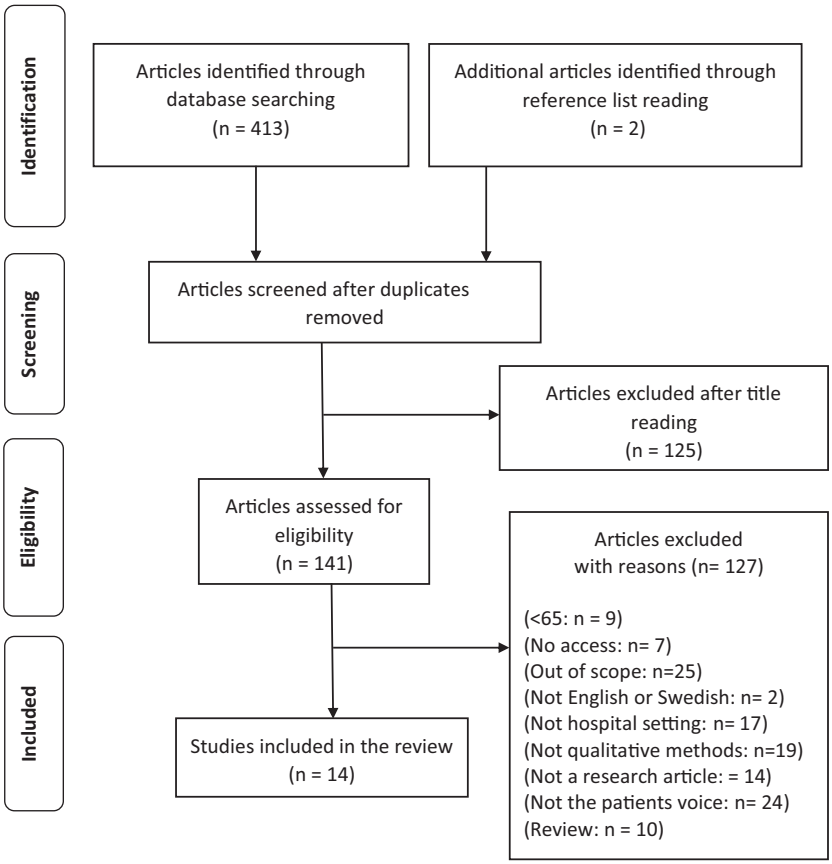

Figure 1 Flow diagram of the search strategy (76).

older patients; these aimed to elucidate the patients' mealtime experiences in relation to inadequate food intake (42), location of the dining area (43) and the overall experience of meals and the eating environment (44,45). The 14 studies were conducted in Australia (n = 2), Canada (n = 1), Sweden (n = 4), the UK (n = 6) and the United States (n = 1). The included patients were admitted to different wards and rehabilitation units representing geriatric care, acute medical care and surgical wards. All 14 studies used qualitative methods to collect their data and used interviews to elucidate the patient perspectives, except for the study by Heaven et al. where focus groups were used (46). Five studies also included observations (45,47-50).

Qualitative analyses of study findings

The themes that emerged from the studies revealed that the patients experienced their mealtimes in relation to three aspects: (1) *food and the food service*, (2) *mealtime assistance and commensality during mealtimes* and (3) *the importance of retaining one's independence*.

Theme 1: The food and the food service. The patients were overall satisfied with the meals during their stay (44-45,47,50). However, there was room for improvement in relation to *portion sizes*, *menu choices* and, to some extent, *how the food was prepared and cooked* (42,44-47,49-52). The ability to choose from a menu was highlighted by some patients, and a wish was expressed to be able to change items in the current menu (52). The patients had different opinions regarding the need or the right to actually have a say in relation to menu choices. Some of them thought that being provided with choices in a large hospital organisation was not something that could be expected (44,47). One study revealed that not all patients were shown the menu; instead they were asked a series of questions about what they wanted to have for lunch and dinner (52).

The hospital organisation and the structures surrounding the meals were also discussed by the patients when they reflected on what could influence their mealtimes (42,46,50,51), with examples of meal trays being taken away before they had finished their meals or even food being placed out of reach: '[The food] was never close enough...and if I couldn't reach it nobody else tried to give me it (...)' (46: p. 633). Shortage of staff could negatively influence their overall mealtime experience, but at the same time they stated that the staff did a good job considering their work load (53). The patients explained

that their poor appetite was to be expected due to their current health status and in relation to their hospitalisation (52). In one study, the patients did not think that nutrition played an important role as medical treatment (42), while other studies showed the opposite (44,52).

Theme 2: Mealtime assistance and commensality during mealtimes. Mealtime assistance was reflected upon in relation both to the nursing staff and to the volunteers during mealtimes. The service by different staff categories during mealtimes was appreciated overall, but some studies highlighted that the nursing staff did not seem to care how much the patient ate (42), or raised the importance of the staff's presence for the patient eating anything at all (50): '(. . .) If they [health care providers] come in [to the room] I'll eat; if they don't I won't. I won't even look at it, so that's another factor' (50: p. 82). This exemplifies that the mere presence of the staff had a direct impact on the patients' willingness to eat.

Mealtime volunteers were highly valued by both patients and staff (53,54). The patients saw the volunteers as providing both 'a fresh face' on the ward (52) and valuable assistance. The volunteers were seen to be extra beneficial for patients who needed help opening packages or needed their food to be cut into smaller pieces.

The findings of the literature review raised the importance of dining companions and the possibility to choose whether to eat in the communal dining room or in the privacy of one's own room (43). Most often, social interactions were seen to be beneficial for the patients' meal experience, since they provided both social connection and extra help during the meals. In two of the studies, the patients expressed a wish to dine together with the staff (51,55). Common mealtimes were also seen as a way to organise the patients' perception of time during their hospitalisation (48). Baptiste, Egan, and Duboulouz-Wilner reported that most of the patients preferred to eat in the communal dining room (43). However, some patients said that other patients' table manners could have a negative impact on their own appetite (43-44,47); for example, if other patients yelled, drooled or spilled food, the privacy of one's own room was sometimes seen as a better option. However, social contact was shown to be beneficial not only for the patients' food intake and willingness to eat, but also for the overall mealtime experience, which was enhanced by the presence of fellow patients (42,45,50). The environment where the food was consumed was also important, and affected the perceived availability of assistance during meals (43,44).

Theme 3: The importance of retaining one's independence. The final theme emerging from the patients' voices in the literature review showed the importance of considering the patients' desire to be independent and to be able to manage their own mealtime situation (44-45,47). Those who had lost the ability to control their dominant hand (e.g. due to a stroke) needed to find other ways to handle their meal situation. Several of the patients mentioned the availability of different aids, but at the same time felt ashamed of their new situation: 'I hardly ever drink anything. If I drink, it will spill out on this side. I can't drink out of a normal coffee cup,. . . you are almost ashamed of yourself' (45: p. 216). Eating problems could also result in ordering food that they knew was easier to manipulate on the plate and to chew and swallow (52). There were recurrent expressions of the patients not wanting to be a burden. Even if patients needed help, they did not ask for it (47). The culture of being content and not complaining was reported in several of the studies; one patient expressed the idea of having to adapt to the current circumstances by stating that 'When in Rome, you must do as the Romans do' (45: p. 219). Other patients also said that one should eat what was served. However, due to a decline in appetite, this could be challenging.

Discussion

The aim of this review was to map current knowledge regarding mealtimes in hospitals from the perspectives of older patients, and to elucidate what older patients describe as enhancing or worsening their mealtime experience while in hospital. The findings indicate that patients were generally satisfied with their meals, which is in line with previous studies (10,14,27,56,57). In relation to this, it is important to highlight that the older patients often said that one should not complain, make a fuss or bother anyone, and instead be satisfied with what is provided (44,45). However, suggestions for improvements were raised, especially in relation to portion size, how the food was served, what assistance was provided and where the food was consumed. Naithani et al. reported similar results in their study concerning hospital inpatients' access to food (14), finding, for example, that older patients viewed large portion sizes as off-putting and had more difficulties in manipulating the food.

This review also supports the findings of previous studies regarding the importance of social relations and commensality during mealtimes for patients in hospitals and nursing homes (58-63). Markovski et al. showed that older inpatients consumed 20% more energy and protein when eating in a communal dining room, which emphasises the importance of commensality during mealtimes. Mealtimes in hospitals and in nursing homes are distinctively different from meals eaten at home or in restaurants, but are still a practice that involves the eating of food, alone or in companionship with others. However, the meal experience in a hospital setting is often characterised by the influence of disease. Previous studies have indicated how illness can impact patients' eating and

willingness to eat (57), and this might also affect the meal experience when eating together with fellow patients. Moreover, if the meal is eaten together with patients with drainage and urine bags on display, for example, other patients might lose their appetite. This shows the intricate 'meal reality' of hospital meals (64).

The complexity of serving meals to patients has been recognised in several studies, emphasising that no single intervention or environment alteration will solely impact on the patients' health or well-being (65). The aspects of the FAMM, as the theoretical and analytical framework of this review, show that the meal is more than food presented on a plate; it is a multisensory experience (38-39,66). The patients in this review gave several examples of this multisensory experience when talking about the presentation of food on the plate (42), the difficulty of sensing taste due to dryness of the mouth (44), or where the food was served (43,44). The aspects of FAMM are thus relevant to understand the meal experience and the factors that the patients considered to enhance or diminish their appetite. The *room* aspect was clear when patients discussed the importance of room décor or stated that the communal dining room provided a better view (43,44), and the *product* was frequently highlighted in discussions of taste (or tasteless food), flavour and overall satisfaction (44-45,47,49-51); nevertheless, the aspect that was found to be recurrent in the studies was related to *the meeting*. The patients raised concerns over lack of assistance during mealtimes, troublesome interactions with fellow patients in the communal dining room, and situations where food was provided but did not produce satisfaction (42-43,46,50,55). Another important aspect that controls and influences the other aspects within FAMM is the *management control system*. This aspect was shown when several patients expressed wishes for menu changes, staff availability and flexibility of food portions (52,53) that were not easily accommodated on the spur of the moment. These issues need to be addressed in the long run both by the food service organisation and by the care providers. The final aspect, the *atmosphere*, was less commonly mentioned in the studies; this finding is similar to the results of Hansen (67). However, the atmosphere did appear in relation to how other patients could 'put the whole group in a good humour' (45: p. 217).

The aspects in FAMM frame the mealtime experience for the patient (or the guest). Although the model does not take the guest's background into consideration, it could be argued that this is included within the meeting aspect, when the guest meets the staff (38). As this review has shown, patients have similar ways of expressing that one should not complain, bother or make a fuss and that during hospitalisation one should adapt and be satisfied with what is provided (44-45,55). This view might be problematic if patients do not disclose their real feelings or expectations to hospital staff during their stay. The notion of *hospitality* (68) is here suggested as a way to raise the issue of meeting patients' needs and desires regarding the meals served. Being hospitable means being able to read the guests and provide service that respects the guests' perspectives and wishes (68,69). The notion of hospitality has previously been studied in the hospital setting (70-74), but not specifically in relation to older patients and their mealtime experience. The notion of hospitality has also been applied in a nursing home study to discuss the meeting between staff and patients (62). Odencrants et al. found that the staff were perceived to be disrespectful when they, for example, started cleaning the table while the residents were still eating, thus displaying the opposite of hospitality. A similar scenario was also described in one study included in the present review (42).

To our knowledge this is the first review that has a focus on the voices of older patients in relation to mealtimes in hospitals, and it clearly illuminates the shortage of studies which solely include the perspectives of older inpatients. The picture of how mealtimes are experienced or perceived by older patients is often given through the lens of actors other than the older patients themselves, for example care staff or relatives. A systematic literature review of qualitative studies in nursing homes and care homes (65) similarly revealed that the older residents themselves were not heard to any great extent, which also calls for more research focusing on older residents and patients. The present review fills a gap in the literature by highlighting older patients' mealtime experiences during hospital stay. Future research should not only include the voices of older patients, but also investigate hospitality during mealtimes and how this can further our understanding of how to enhance older patients' mealtime experiences while in hospital, from the perspectives of those whom it concerns.

Strengths and limitations

This literature review does not claim to be exhaustive in its findings, since studies may have been missed due to the language settings, the databases chosen, the search terms used or the decision not to search the grey literature. However, seven databases were used that covered a broad area of health care, and the search terms covered the meal, hospital setting and patient group of interest.

Ten of the reviewed articles included perspectives from both staff and patients in the same study (Table 1), and it could be argued that these articles should have been excluded due to not meeting the inclusion criteria. Nevertheless, it was possible to extract the patients' perspective from these articles. Studies that included patients of all ages were excluded, which might have led to the loss of important and valuable information, but it was not possible to identify the patients >65 in these studies. This

could also be a strength of the review, as it highlights the shortage of studies that solely include older patients' perspectives and thereby calls for more research to be conducted. Another limitation is the lack of studies from non-Western countries; all 14 studies were conducted in Western countries, and hence, the results do not present a diverse cultural perspective.

A range of theoretical backgrounds can be seen as a strength when interpreting and reporting findings of a studied phenomenon (75). All authors of this review had a background in research within the field of meal science, but from different perspectives. However, none of the researchers had a background in or practice-based experience of nursing or nutritional care. The main author has a public health background, the second author has studied meals and the ageing population in different contexts with a sociology-oriented focus, the third author has a meal culture and society perspective, and the fourth author has a sensory science focus. Since this review shows the complexity of serving meals in a hospital setting from the perspective of older patients, our pre-understanding of how a mealtime can be understood is here identified as a strength and not a limitation.

Conclusion

This review found only a limited number of studies capturing older patients' perspectives of mealtimes in hospitals. Nevertheless, the voices included in this review indicate that patients >65 years are satisfied overall with the food service and the meals served during their hospital stay. However, it could be argued that this satisfaction was expressed in a context of 'not complaining', since some concerns were raised in relation to portion size, wishes for social interaction and need for timely assistance. Volunteers during mealtimes positively influenced the older patients' food intake, and eating in a communal dining area was preferred. It is also essential to acknowledge both the patients' striving for independence at mealtime and the importance of their nutrition intake and overall health.

More studies are needed with an explicit focus on older patients' perspectives of how they experience their mealtimes, both in relation to the food service provided in hospitals in general and how they experience their mealtime situation in particular. The framework of FAMM and the notion of hospitality might strengthen our understanding of how hospital meals are experienced and how mealtimes can be further developed to meet current and future mealtime expectations.

Author contribution

Ann-Sofie Jonsson contributed to the conception of the study, literature search, analyses and interpretation of data and drafting and writing of the manuscript. Maria Nyberg, Inger M Jonsson and Åsa Öström contributed to the conception of the study, analyses and interpretation of data, drafting and writing of the manuscript and overall supervision. All authors contributed to the critical revision of the manuscript. All authors have agreed on the final manuscript.

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Note

1 Except for PubMed, where the search word 'Meals' was also used as a MeSH term, and in SweMed + to broaden the search.

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