Malnutrition is a common and serious problem in nursing homes. Dietary strategies need to be augmented by person-centered mealtime care practices to address this complex issue. This review will focus on literature from the past two decades on mealtime experiences and feeding assistance in nursing homes. The purpose is to examine how mealtime care practices can be made more person-centered. It will first look at several issues that appear to underlie quality of care at mealtimes. Then four themes or elements related to person-centered care principles that emerge within the mealtime literature will be considered: providing choices and preferences, supporting independence, showing respect, and promoting social interactions. A few examples of multifaceted mealtime interventions that illustrate person-centered approaches will be described. Finally, ways to support nursing home staff to provide person-centered mealtime care will be discussed. Education and training interventions for direct care workers should be developed and evaluated to improve implementation of person-centered mealtime care practices. Appropriate staffing levels and supervision are also needed to support staff, and this may require creative solutions in the face of current constraints in health care.

**KEYWORDS** long-term care, mealtimes, person-centered care

Poor nutrition is a common problem in nursing homes, which can lead to increased infections (1), slower wound healing (2), greater risk of falls and
fractures (3), and lower health-related quality of life (4). According to a systematic review including 32 studies of institutionalized older adults, 5%–71% of residents were malnourished and 27%–70% were at nutrition risk as assessed by the Mini-Nutritional Assessment (MNA) (5). Many factors contribute to this persistent problem of malnutrition. Physiological changes with age are known to include reduced appetite and taste alterations that lead to decreased intake (6). Poor dentition, dysphagia, chronic illness, and medication effects also contribute to malnutrition in nursing home residents (7, 8). Concerns have also been raised that regular menus may not meet residents’ micronutrient requirements (9), and that pureed diets do not consistently provide adequate protein (10). In addition, neurological problems and cognitive impairment often lead to greater dependence on feeding assistance; inadequate staffing to provide the assistance and supervision needed contributes to the problem of low food intake (11).

Malnutrition in nursing homes is a complex issue requiring multifaceted solutions. Nutrition interventions typically include providing snacks, using flavor enhancement, increasing meal energy density, and providing micronutrient or oral liquid nutrition supplements (12, 13). Yet, even with the best nutrition interventions in place, if interest in eating is poor or residents are not skilfully assisted, it is very difficult to improve nutrition status. Therefore, another key to resolving the problem of such high rates of malnutrition is to focus on the mealtime environment and ensure that dining experiences are pleasant for residents.

There has been an increasing trend to create a more homelike living environment in nursing homes (14), and this includes changes in dining room design, decor, and style of meal service. Food can be portioned on residents’ plates in the dining area rather than in a centralized location, with the aim of encouraging eating and socializing (15). Further, creating a smaller, homelike environment can help prevent overstimulation that may occur in a large, busy dining room (16). Yet simply making changes to the design of the dining room and how food is served does not ensure that the dining experience will be pleasant, or that the social side of eating will be enhanced. Much depends on the way staff interacts with residents and how they facilitate conversation at the table (17, 18). Pleasant dining experiences are created when staff value the social aspect of meals and find ways to honor residents as individuals.

At the heart of mealtime care is the need to uphold residents’ personhood. Defined by Kitwood (19), personhood is “A standing or status that is bestowed upon one human being, by others, in the context of relationship and social being. It implies recognition, respect, and trust” (p. 8). Mealtimes that are focused merely on meeting residents’ physical needs fail to support all aspects of personhood. Mealtime care should be holistic, meeting residents’ biological, social, psychological, moral, and spiritual needs (20). According to Brooker (21), care that is truly person-centered has four main qualities: valuing every resident, using an individualized approach, seeing
things from the resident’s perspective, and creating a supportive social environment that meets psychological needs.

This review will focus on literature from the past two decades on mealt ime experiences and feeding assistance in nursing homes. The purpose is to examine how mealtime care practices can be made more person-centered. It will first look at several issues that appear to underlie quality of care at meal times. Then four themes or elements related to person-centered care principles that emerge within the mealt ime literature will be considered: providing choices and preferences, supporting independence, showing respect, and promoting social interactions. A few examples of multifaceted mealt ime interventions that illustrate person-centered approaches will be described. Finally, ways to support nursing home staff to provide person-centered mealt ime care will be discussed.

FACTORS UNDERLYING QUALITY OF CARE

Silent Recipients of Care

Nursing home residents often do not voice their concerns or desires at mealtimes. They are silent, not expressing their wishes for specific foods or ways of being presented food. For example, patients in a rehabilitation and long-term care hospital tended to be quiet and not complain about the food because this was an embedded cultural value of their generation (22). Likewise, it has been observed that even though staff accommodated requests, residents were hesitant to ask for anything (18). Being a silent recipient of care is potentially more pronounced for those that are a minority within the institution. Chinese residents in an American nursing home did not want to complain because of their cultural values of collectivism and saving face (23). These Chinese residents did not expect their cultural food preferences to be met because they were aware that the nursing home’s chief purpose was to meet everyone’s medical needs. Further, many residents with severe cognitive decline are unable to verbalize their needs or preferences. In the face of this silence, it is the responsibility of the staff to try to understand what residents are feeling and how to improve the mealt ime experience for them.

A Need for Reflection

Understanding a resident’s point of view requires staff to stop and reflect on the way they do things and how they would feel if they were in the resident’s place. Gastmans (20) stated, “To be open to the resident’s perception is a sign of professionalism and reveals a willingness to be critical of one’s own care practice and to adapt it if necessary with an eye to the resident’s well-being” (p. 234). It is easy for busy direct care staff to go about their work
without this reflection taking place. For example, Schell and Kayser-Jones (24) observed ten residents who required complete feeding assistance, and findings of these observations were interpreted through a lens of symbolic interactionism in which role-taking (the ability to put oneself in another’s shoes) explained differences in how mealtime care was provided. Care was marked with compassion when staff seemed to understand and see the meal from the resident’s perspective. In contrast, when the staff did not exhibit good role-taking abilities, their manner of caregiving was routine and mechanistic. Similarly, Sidenvall (22) described how “defective nursing” occurred at mealtimes when residents kept quiet and nursing assistants went about their usual mealtime work routines automatically with little reflection on things from the residents’ perspectives. It is not easy work to see things from another’s point of view. Nursing assistants tend to assess and react to what they observe in the dining room according to their experience and common sense, but this requires constant attention (25). Without this vigilance, feeding could become task-focused, rushed, or stopped too soon.

Staff Attitudes and Beliefs about Mealtimes

The way mealtime care is provided is also tied to the attitudes and beliefs that staff hold. For example, some nursing assistants have been described as “social feeders” who believe that meals are a time to socialize, whereas others are considered “technical feeders” who believe that ensuring adequate intake is the top priority (26). Some of the nursing assistants may not fall clearly into either group, perhaps equally valuing the nutritional and social sides of eating. A recent study on staff perspectives of mealtimes in a geriatric-psychiatric hospital ward in Belgium found that staff tried to keep a balance between the desire for a patient-oriented approach and the functional or organizational aspects of meals (27). They recognized that mealtimes provide a place for social interaction and promoting independence, and are a time for relaxation and enjoyment. Yet, on the functional side, ensuring things ran smoothly and efficiently required making agreements with residents about how, when, and where meals would be served, and following mealtime rituals or routines was important. In some homes, the balance may be lost and the social aspects of meals suffer. For example, Wu and Barker (23) identified how staff practices were narrowly focused on the goal of treating or managing medical conditions. This was reflected by the commonly used terms of “nourishment and hydration” rather than “food and drink” within the home. In this environment, opportunities for interaction and community-building among residents at meals were limited.

Staff training can help promote appropriate attitudes and beliefs regarding mealtimes and feeding assistance. A study evaluating an education program for nursing assistants providing mealtime care for residents with dementia found significant improvements in knowledge, attitudes, and
behaviors in those who received the training compared with a control group (28). The study, however, was limited by a very small sample size. There is a need for further research on staff education and other strategies to influence staff attitudes and beliefs about mealtime care.

Inadequate Staffing

Not having enough staff appears to be at the root of many problems with the quality of care at mealtimes in nursing homes. Marked differences between mealtimes during the day and evening shifts have been observed and attributed to differences in staffing levels (29). At lunch, each nursing assistant fed two residents and assisted one to two others. There was extra supervision and assistance at lunch time from other staff, including the social worker, director of nursing, charge nurse, dietitian, and dietary manager. One of the nursing assistants during the day shift was also more highly trained than the rest, having a background in nursing in another country. This nursing assistant was a good role model when providing feeding assistance. In contrast, the nursing assistants on the evening shift were responsible for five to seven residents at meals and had no role model and less supervision. While lunches were pleasant, supper times were overwhelming for staff, and they learned to cope by using mechanistic, assembly-line strategies and taking short cuts. Less attention was given to helping residents stay clean, communication was minimized, and residents were fed quickly and forcefully (29).

In a survey of 99 nursing assistants and 44 nurses from five American nursing homes, 73% of nursing assistants and 93% of nurses agreed that when the nursing home was short staffed, residents did not get enough assistance with eating (30). Chang and Roberts (31) also reported that of the 31 nursing assistants they interviewed and observed during meals in a Taiwanese nursing home, 93% felt there wasn’t enough staff and they lacked the knowledge needed to feed residents well. Further, a study focusing on residents’ perspectives found that residents felt there were inadequate staff numbers to cook food properly, assist them during meals, monitor their intake, and return them to their rooms after eating (32).

Certainly in an environment where health care budgets are tight, a clear understanding of minimum staffing requirements at mealtimes is needed. Also needed are creative solutions for assessing a quality experience for residents despite the limitation in resources. Simmons and coworkers conducted a series of studies testing the time required to provide quality mealtime care using standardized feeding assistance protocols, shedding some important light on these issues (33–35). This program of research focused on residents identified to have low food intakes. The goal of the feeding assistance interventions in each of these studies was to improve residents’ intakes by at least 15%. The feeding assistance protocol in the first study involved one-on-one continuous assistance, prompting to promote self-feeding abilities, and social
Time spent providing assistance increased to almost 40 minutes per person when this intervention was added. Thirty-nine percent of the residents improved their intake by more than 15\%, and 11\% of residents improved by 10\%–15\%. However, half of the residents showed little to no change in intake with the intervention. Additionally, for those who did respond well, the helpfulness of providing the feeding assistance in groups of three was assessed. Eighteen residents participated in the group feeding trial, and all but four had even better intakes in this setting.

The second study on staffing examined residents’ responsiveness to different graduated levels of feeding assistance and the time required to provide this help (34). Levels of assistance included social stimulation and encouragement, nonverbal cuing, verbal cuing to eat, physical guidance such as helping to hold a cup or utensils, and full physical assistance. To improve residents’ intake by at least 15\%, 35–40 minutes of staff time were needed regardless of the level of feeding assistance. Interestingly, residents were more likely to have a 15\% or more increase in their intake if they were cognitively impaired and required full feeding assistance. A third study showed that providing snacks with assistance was commonly more effective than the mealtime feeding assistance protocol (35). Among residents whose intakes increased by at least 15\%, three quarters had the best intakes with the snack intervention. Under usual care, assistance was provided for less than 10 minutes per person per meal and less than 1 minute per person per snack. When the interventions were added, staff time for feeding assistance increased to approximately 42 minutes per person per meal and 14 minutes per person per snack.

What does this mean for practice? No single strategy works for all residents. Some will eat best with one-on-one assistance; others do just as well or better when feeding assistance is provided in small groups. Offering snacks with extra assistance may be the best strategy of all for some residents. When examining the number of staff needed to help in the dining room, the individual needs of residents should be taken into account. Where possible, to best support increased intakes, self-feeding abilities, and social interaction, feeding assistance should be provided over at least a 40-minute period in small groups with one staff person to two or three residents. If residents are more responsive to one-on-one assistance, this should be provided, being mindful of the time required. If residents respond to snacks, then staffing levels and routines should be reconsidered to allow for extra assistance at snack times.

Providing adequate assistance may require creative strategies. One potential solution to the problem of low staffing is to encourage help from volunteers. This was the approach of the Dining with Dignity Program, which aimed to provide greater assistance and create positive mealtime experiences for residents (36). A three-hour training session was provided for interested volunteers and family members on how to provide feeding
assistance and deal with disruptive behaviors they may encounter. Although perspectives of staff and residents were not reported, volunteers found it very meaningful to assist residents at meals.

ELEMENTS OF PERSON-CENTERED MEALTIME CARE

Valuing residents as individuals and creating a sense of belonging by attending to the social side of eating is at the heart of mealtime care. Although there are certainly some challenges to overcome, actions to uphold residents’ personhood need to be pursued to improve mealtime experiences and help address ongoing problems of poor food intakes. Four key elements of person-centered mealtime care are illustrated in Figure 1 and described below.

Providing Choices and Preferences

Food often carries great significance in residents’ lives. The meaning behind residents’ food choices is frequently related to traditions, religion, or personal taste—it is a part of remembering their roots (37). In a study involving interviews with 20 residents about food and food service in the nursing home,

FIGURE 1 Four main elements of person-centered mealtime care for nursing home residents.
residents valued having variety and choice in the menu, being able to choose to eat in the dining room or in their bedroom if desired, and having opportunities to ask for more (38). The same research group also found residents appreciated opportunities to order alternatives, try new foods, return items they disliked, and bring in food from family members or other places (32). Several questionnaires have been developed in recent years to better understand residents' satisfaction with food services and their preferences (39–41). Obtaining input from residents and family through food committees is one means for promoting preferences, and menu-planning typically provides opportunity for this input. However, constraints of cost (both labor and food) and diversity in the resident population impact the ability to incorporate these stated preferences (42).

In one study, the greatest barrier to good nutrition care recognized by staff was that residents sometimes did not like the food being served (30). Bryon and coworkers (27) also reported that staff felt key barriers to patient-oriented care were when residents had to follow strict diets and the food quality did not resemble home-cooked meals. Sometimes efforts to improve menus and food services for residents fall short of their goals. An American nursing home with a large proportion of Chinese residents worked to provide an Asian diet by offering everyday options of a side dish of rice porridge (juk), rice, and tea or hot water (23). In addition, four Chinese entrees were part of the menu cycle for those on a regular diet. Unfortunately, residents did not see the Asian diet choices as Chinese because of the way the food was prepared or served. For example, Chinese tea is traditionally brewed in a pot and poured into small handleless teacups; using tea bags and plastic mugs removed the cultural significance. Despite the nursing home's efforts, the only taste of home residents recognized was when their families brought foods in for them. An important aspect of person-centered mealtime care is providing foods that are personally acceptable and culturally appropriate. This can be a challenge to provide but innovative approaches need to be explored, including flexibility to allow for family provision of key foods, dining clubs, or other events that provide for food preferences.

For residents who need full physical assistance with eating, great care should be taken to give them choices as they are being fed. Residents with cognitive impairment may not be able to recognize foods on their plate, and it is helpful when staff orient them to the meal by describing what is being served. Schell and Kayser-Jones (24) found that some staff who provided feeding assistance failed to help orient residents to the meal and did not support their autonomy by offering choices. Instead of giving the resident a choice of what to eat at the meal, nursing assistants may give food based on their perception of the nutritional quality of foods, offering the most nutritious first (25, 31). It was observed that for some nursing assistants, this meant the main source of protein, while for others it was the soup or oral
liquid nutrition supplement. Residents who are being provided such assistance should be shown how they are honored and valued as individuals by offering opportunities to make choices about what to be fed and in which order. Other preferences such as where to eat and with whom one sits, or which direction one faces (e.g., looking out the window) have been neglected in the literature but are other mealtime opportunities for making decisions and offering choice. When much of the care that is provided to older adults in nursing homes is prescribed, every opportunity to make decisions that are meaningful, such as what and how one eats, need to be provided to promote satisfaction and quality of life.

Supporting Independence

Many older adults in care require some level of assistance at the meal. This can vary from orientation to full assistance. However, feelings of independence, especially with feeding oneself, are essential for dignity. Too often, when full independence is not possible, staff can totally take over this role, disregarding the continuum of assistance that can be provided to promote some level of independence. Osborn and Marshall (43) stated, “Maximizing independence is not the same as giving the least amount of assistance possible. Types of assistance that support self-feeding are more, not less, effortful than spoon-feeding” (p. 254). Promoting self-feeding requires staff to make a careful and detailed assessment of residents’ abilities and find the best ways to support them. This is not a simple task, and it is important for staff to work together and communicate with each other about how to best help each resident. This is especially true during periods of transition, when self-feeding abilities can change from meal to meal. It has been observed that even though staff felt that maintaining independence was important, they did not all judge the residents’ self-feeding abilities the same way (18). Different nursing assistants provided different amounts and kinds of assistance for the same resident.

As with other areas of care, staff behaviors may more frequently support dependence rather than independence at meals (44). This is likely due to the time restrictions as well as lack of priority given to meals. Six residents were systematically observed for 3 minutes during 20 mealtimes, and behaviors of both residents and staff were coded. Two-thirds of staff behaviors supported dependence by such actions as encouraging requests for assistance or discouraging attempts at self-care. There are many ways that staff can promote self-feeding abilities, and a lot have to do with setting residents up for the meal and giving ongoing prompts and encouragement. Positioning residents properly to eat and also being mindful of times of day when they are at their best for self-feeding are important. Conditions of inadequate staffing may contribute to the problem of residents being positioned poorly and lead to being served meals in bed (45). In this study it was observed that a poorly
positioned tray often led residents to eat with their fingers, and a lot of food fell down rather than being consumed. Residents may not even be able to see or reach some items on their trays when eating in bed. Staff could see this as inadequate ability to self-feed, when in reality it was a relatively simple issue of where the person ate that influenced their independence.

Bonnel described an educational program for nursing assistants to support independent eating behaviors in a group dining environment (46). The training was based on a metaphor that described eating as work, where the right tools and supervision make the job easier for residents. It involved a single one-hour meeting that covered ways of simplifying the task of eating, using resources and creating an environment to support self-feeding, and providing supervision. Despite lack of a formal evaluation, site of training was found to be relevant; staff trained in the dining room commented that this specific setting made mealtime challenges vivid. Increased staff training on supporting independent eating would help create mealtimes that are more person-centered, and future work needs to develop educational strategies that are effective.

Showing Respect

Showing respect stems from viewing mealtimes from the resident’s perspective. Evans and coworkers (38) found in their study of 20 nursing home residents that they appreciated courteous, experienced, truthful, caring, and responsive staff. It was important to them to have meals on time, to know they would receive enough help, and to be served adequate portions. Residents also appreciated when staff were there to listen to their needs and intervene when mistakes were made (32). Staff should slow down, approaching residents in a relaxed way and greeting them courteously (16). They need to understand the residents’ reality and show empathy. Schell and Kayser-Jones (24) observed that when nursing assistants were empathetic, they addressed the resident before starting to assist with feeding, and searched for meaning in patterns of behavior.

Unfortunately, studies on mealtimes have often also described examples where respect is lacking. Sitting down while feeding residents is a small way to show respect, but some staff may be indifferent about whether they sit down while providing assistance (18). It would seem that inadequate staffing affects the level of respect shown and influences personalized care. In a time-restricted environment, the dining room can take on a “sick room” atmosphere because residents may be brought to the meal without first being dressed in day clothes, having their hair done, or receiving oral care (45). Insufficient training can also be a problem. Pelletier (47) observed and interviewed 20 nursing assistants from 4 nursing homes and found they lacked training on dealing with difficult eating behaviors, and generally learned strategies on the job from other nursing assistants. Some of these strategies,
such as mixing all the solid foods together, compromised the residents’
dignity and showed a general lack of respect for the resident. This practice
was also observed in two other studies (31, 45). Residents should be treated
with the respect that staff would wish to receive if they were in the residents’
position; effective education for staff could be a step towards a more respect-
ful environment.

Promoting Social Interaction

Mealtimes are about much more than the food provided and consumed. In a
study of residents’ perspectives on the meaning of mealtimes, participants
saw eating with others as a way to develop and maintain relationships
(37). Social interaction may also have positive influences on food intake.
The communication behaviors of 32 patients in a Canadian geriatric hospital
ward were observed, and it was found that energy intake was associated with
the total number of interactions (48). The relationship was only partially
explained by meal duration. Regular social interactions, by frequently
making comments about the food and the mealtime experience, along with
non-verbal cuing, may also help residents who tend to wander from the table
to sit longer and have better intakes (49). Based on participant observation in
retirement homes, a range of social interactions among tablemates were
identified. These included making conversation, providing assistance, shar-
ing, humoring, non-verbal expressions, appreciation, and affection, as well
as negative interactions such as rebuffing, ignoring, or excluding (50).

Good social interactions can be encouraged by appropriately grouping
residents at tables in the dining room. Seating arrangements were seen by
staff to promote social interaction and increase comfort for the residents
(18). Cherry and coworkers (51) proposed a model providing guidelines
for appropriately grouping residents with dementia according to their social
needs, but the model has not yet been tested. It is hypothesized that there
should be four different groupings: (1) residents who are aware of their
social environment and usual social boundaries, (2) residents with less
awareness of social boundaries, (3) residents with greater tendencies for
disruptive behavior, and (4) residents who respond to stimuli but have no
awareness of their social environment. While it is common practice for
residents to have regular tablemates, the staff who assist them may not be
as consistent (25). Having the same person assisting a resident to eat on a
regular basis may promote better relationship building at meals, although
in one study staff expressed that they disliked feeding the same resident all
the time and felt it was unfair to do so as some residents were more difficult
to feed than others (18). There should be further research on the benefits of
having consistent staff feeding assignments.

Often, however, very little social interaction takes place during meals.
The need for further staff action to promote social engagement was clearly
exemplified in a study involving systematic mealtime observations of six residents (44). Only 6.8% of residents’ behaviors showed independent social engagement such as taking initiative to talk to others or passing food. Further, only 5.7% of staff behaviors were considered supportive of social engagement, by showing awareness of and responding to residents’ social needs. In the case of those requiring total assistance, social interaction may actually be enhanced, as this provides a face-to-face interaction with a staff for a dedicated amount of time. Pearson and coworkers (18) found that residents who needed little assistance during the meal had very little conversation with staff compared with those who had full feeding assistance, although it also depended on how responsive individual residents were to participate in conversation. Not having enough room for staff to sit down as they provide feeding assistance was a problem observed in one study that led to little or no interaction with residents (31). This suggests that the physical mealtime environment needs to be considered if social interaction is to be promoted. Also, with conditions of inadequate staffing, it was found that more residents ate in bed where they lacked social interaction (45).

Relatively little research has focused on tablemate interactions. In an observation study in retirement homes, various factors were found to influence tablemate interactions: tablemate roles (i.e., dominant vs. supportive), resident characteristics (i.e., language, health), staff (speaking to individuals vs. the whole table), and the environment (50). Interaction at the nursing home level among residents often does not occur unless it is encouraged by staff. Simple ways of facilitating some interaction at the table might include having a general knowledge quiz at lunch time or placing a more talkative resident with several residents who tend to be quiet (18). Resources on strategies and techniques should be developed to help staff facilitate social interactions among residents at meals.

Switching from regular pre-plated foodservice to family-style meals, where food was served from platters at residents' tables, was found to increase participation and communication during mealtimes, and there was an even greater improvement when nursing assistant training was provided (17). This was a small study, however, including observations of only five residents and one nursing assistant. Yet, it was also observed in a study of Chinese residents that when they were taken out for a meal to a local Chinese restaurant, they had a very different experience compared with mealtimes at the nursing home (23). There was much more social interaction in the restaurant as they sat around a large table, poured tea for each other and chatted, and served their food from common platters. Individualization of meals by tray service reduced social opportunities and community-building among residents within the nursing home. Another way to promote social interaction may be to provide more opportunities for staff to eat with residents or simply sit down with a cup of coffee or tea as the residents eat. Nursing assistants, whose care was marked by empathy and compassion, were observed
to sometimes share in the mealtime experience by eating with the resident as they attended to the social side of eating (24). Future research could identify more effective ways to help improve staff interactions with and among residents at meals, especially with those who are cognitively impaired.

Carpiac-Claver and Levy-Storms (52) studied how nursing assistants communicated with residents at mealtimes using video observation. They identified different types of affective communication, which helped with rapport or relationship building. One form was personal conversation, which included not only talking about things like visits from family members, but also pleasantries, laughter, and singing. Affective communication was also shown by addressing the resident by name or using terms of endearment; checking in about the resident’s comfort, hunger, thirst, or preferences; and giving emotional support or praise. In this study, the nursing assistants tended to use more imperative instrumental statements such as “You drink it, okay? You gotta finish this” (p. 63) than affective ones when assisting cognitively impaired residents who did not speak. Likewise, other research found that nursing assistants had good communication skills with residents who could carry on a conversation, but experienced discomfort when trying to talk with residents who didn’t or couldn’t talk back—their communication was often reduced to commands to eat or drink (47). These direct care providers had little knowledge of how to communicate with these residents. Notably, it was found that this topic was poorly covered in their certification training. There appears to be a great need to better prepare staff to engage in some way in social interactions at meals with all residents so they feel valued and connected with others.

An Overview of Multifaceted Mealtime Interventions

Many strategies can be used to promote the four elements of person-centered mealtime care, and some examples are listed in Figure 2. In addition, there are good examples in the literature of mealtime interventions that are multidimensional or holistic in nature. Although not necessarily described as “person-centered” by the authors, each of these interventions incorporates a number of elements of person-centered care such as those described above—providing choices and preferences, supporting independence, showing respect, and promoting social interactions.

Although most studies with these types of multifaceted interventions have had major limitations in study design and sample size, one has recently overcome many of these weaknesses. Family-style meals were evaluated in a relatively large randomized controlled trial in the Netherlands (53). The study included five nursing homes, and in each home one ward was randomized to the intervention and another to the control group. In all, 94 residents received the family-style meals intervention and 84 continued with usual pre-plated tray service. The intervention involved a number of changes to
the mealtime ambience through a new protocol. Tables were prepared nicely with a table cloth and subtle flower arrangements. Regular plates, drinking glasses, and cutlery were used rather than plastic. Food was placed in serving dishes on the table, and there were choices of two vegetables, meat, and potatoes. The staff protocol was to sit down and chat with residents at meals, with at least one staff person at each table. There were to be no staff switches during the mealtime to prevent disruptions, and staff always asked what each resident wanted to eat. Medications were given out before the meal started, and meals began only when everyone was seated at the table, following a moment for reflection or prayer. No other activities took place during the mealtime and the dining room was closed to visitors and other health care providers to prevent interruptions. Carts for meals, medications, and resident files were kept out of view to create a homelike environment. Dining room clean up began when the mealtime was finished. Data were collected at baseline and six months after the intervention began, and comparisons found significant improvements in intakes of energy and macronutrients as well as Mini Nutritional Assessment scores. In fact, the percentage of residents classified as malnourished decreased from 17% to 4% in the intervention group, while malnutrition increased from 11% to 23% in the control group (53).

An earlier study also conducted in the Netherlands with a very similar mealtime protocol was performed with measurements taken at baseline and one year after the intervention began (54). One difference was that rather than providing food in serving dishes on the table, the meal was served course by course per table, or “restaurant style.” Another difference
was that there was one staff person for every two residents. Unfortunately, only 22 of the original 60 participants completed the study; three-quarters of the residents who were lost during follow-up had died during the one-year period. However, with the remaining 10 residents in the control group and 12 in the intervention group, a significant difference in weight change was observed; weight changed little in the control group, but increased significantly for those receiving the intervention. Hemoglobin levels were steady for the intervention group but decreased significantly in the control group. Self-perceived functional status also was stable in the intervention group but declined significantly in the control group (54).

Some study interventions have combined an educational component for staff with changes to the dining environment or style of meal service. For example, a controlled trial was conducted that introduced family-style meals along with a one-week education component with three months of follow-up support for staff (55). The intervention group had 18 residents and the control group had 15 residents. The course focused on promoting resident integrity; in other words, promoting wholeness and meaning as an individual through building trust and autonomy and upholding the resident’s identity. Meal service was changed to create a calm, homelike environment. Serving bowls were provided to each table from which the residents served themselves. Weight change was the primary outcome measure, and it was found that four months after the intervention began, greater weight loss was observed in the control group. Staff reported in diaries that the new family-style meal service increased interactions between residents and made the atmosphere more pleasant (55). Unfortunately, further evaluations of staff satisfaction and knowledge acquisition were not measured.

Another study that involved staff training examined outcomes of a buffet-style meal service program (56). Food was served from a steam table, allowing residents to select what they wanted and they could have second helpings. In addition, there were changes to the dining environment including table cloths, seasonal decor, and background music. Adaptive utensils and plates were available, and nursing assistants had special training to provide the right type and amount of assistance residents needed. Attention was given to positioning residents well for eating and social engagement. Forty residents who were at nutrition risk were randomized to receive either the buffet-style meals at supper or usual tray service for three months. Measures were taken before and after the intervention, but no significant differences were found in biochemical measures or weight change, potentially due to the short time frame and/or small sample size.

Finally, the Bon Appetit! Program also aimed to improve mealtime experiences through staff training and environmental adaptations (57). The program is designed to support residents’ dignity, identity, and connections with others. Attention is given to the food to preserve and enhance taste, aroma, and visual appeal. Details of the dining room environment are also
considered including space, sound, and decor. Procedures such as timing of meals, menu selection, and serving methods are also examined. Self-feeding is encouraged by providing various levels of assistance as needed. Staff are trained to provide high quality care, and this includes how to interact socially with residents, assess needs for assistance, and feed residents properly. Despite apparent strengths of this detailed program, its evaluation was not rigorous. A retrospective evaluation was conducted 12 months after its implementation at a Canadian nursing home with questionnaires completed by 45 staff members. They reported improvements in meal service and residents’ behavior. Staff commented that everyone was more relaxed, residents were more calm and sociable, the meal experience had improved, and they wanted to continue the program.

SUPPORTING STAFF TO PROVIDE PERSON-CENTERED MEALTIME CARE

Increased staff training for nursing assistants on providing mealtime care and communicating with residents is a recurrent recommendation in the literature (18, 22, 24, 29, 45 52, 58). Schell and Kayser-Jones (24) emphasized educating staff on the importance of the social side of meals and conducting exercises to promote empathy. Staff should be taught to step in the residents’ shoes and see things from their perspective. Sidenvall (22) likewise recommended promoting reflective cultures among nursing staff. Future research should engage front-line staff in active reflection on their mealtime care practices, and develop and test strategies to facilitate such reflection. Nursing assistants also need more training on verbal and non-verbal affective, relationship building communication when working with cognitively impaired residents (52). Pietro (58) reviewed strategies for training nursing assistants to communicate effectively with cognitively impaired residents and recommended that training programs: (1) keep lectures to a minimum, (2) use a variety of active learning experiences, particularly role playing, (3) present information that nursing assistants really need to know, giving them opportunity to suggest topics, (4) provide training on-site, (5) follow up or provide training in short sessions held over several weeks or months, conducted by someone working within the home, and (6) provide emotional support, perhaps by a support group, to help reduce turnover and absenteeism.

Along with increased education and training, researchers have called for more supervision and role modelling by experienced nurses at mealtimes (22, 24, 29). They have also advocated that more staff are needed to provide assistance. One staff person can assist two to three residents at a meal, and it must be recognized that giving this assistance requires about 40 minutes (29, 33–35, 45). Creative planning needs to be done to ensure adequate mealtime assistance is provided; this might mean having an 11 am to 7 pm shift to
cover lunch and supper, or recruiting extra help from non-nursing staff, family, or volunteers (29). Having a protected mealtimes policy can also help to engage more staff in providing feeding assistance and interacting with residents at meals (59). Such a policy ensures that potentially disruptive activities such as answering phones and giving treatments that are not immediately necessary do not take place during designated mealtimes. Instead, the focus is placed on creating pleasant mealtime environments and promoting the social side of eating.

CONCLUSIONS

Person-centered mealtime care practices augment usual dietary strategies to address the problem of malnutrition in nursing homes. This review has illustrated that there is good understanding of what a person-centered mealtime looks like, although there have been relatively few strongly designed controlled trials in this area demonstrating the benefits of this care. In addition to health or nutritional outcomes, resident satisfaction and rigorous methods of measuring social interaction are lacking; potentially developing these forms of outcome assessment will demonstrate non-nutritional benefits of these interventions. It is evident that knowledge translation interventions to increase implementation of person-centered mealtime care practices by front-line staff are needed. Staff education is a noted limitation in mealtime care identified in this review and by others. Further, adequate staffing and supervision to improve mealtime care are prerequisite to a person-centered mealtime environment. Future research needs to focus on creative ways to overcome potential barriers, and tailor knowledge translation interventions to strive for person-centered mealtime practices in nursing homes.

TAKE AWAY POINTS

- Residents often do not voice their concerns or wishes at meals, while staff carry out their tasks without taking time to view their care practices from the resident’s perspective. These issues, as well as staffing levels and staff attitudes and beliefs about mealtimes, influence quality of care.
- Person-centered mealtime care means providing choices and preferences, supporting independence, showing respect, and promoting social interaction.
- Although limited, research demonstrates benefits of person-centered care at mealtimes on nutritional outcomes; future work should also determine if these activities promote social interaction, satisfaction and quality of life for residents.
• There is a need for development and evaluation of staff training programs for person-centered mealtime care.
• Creative strategies are needed to ensure adequate staffing levels and supervision at mealtimes.

REFERENCES


