

# Designing for dining:

In the first of a new series on design for dementia (see below), Margaret Calkins and Jennifer Brush describe how one woman's unhappy mealtime experiences led to an appraisal of the whole dining room environment



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### Design for dementia

This column will explore different aspects of building design for individuals with Alzheimer's disease or related dementias. The focus will primarily be on modifications and adaptations that can be made to existing facilities, although occasionally solutions better suited for new construction will be featured. We welcome your ideas, thoughts, queries, and will try to incorporate them into future columns. You can contact us through our websites: [www.IDEASconsultinginc.com](http://www.IDEASconsultinginc.com) [www.IDEASinspire.org](http://www.IDEASinspire.org)

physical frailty, and the drugs that may have been prescribed to alleviate it, may have to be added communication problems consequent upon her dementia. We are only at the beginning of trying to find out the effects of this upon the person. Perhaps in some people this leads to a lack of awareness which, though it inhibits our attempts to get close to them, may shield them from knowledge of what is happening to them. It may, of course, be that some individuals experience dementia as a waking nightmare from which sleep offers them little relief. It could be possible that the condition in some obscure way prepares people for the inevitable when it occurs. Whatever the cause, the effect may present itself as a process of withdrawal.

But there are other possible causes of withdrawal. Suppose this woman is withdrawn because others have withdrawn from her. Her present isolation would then be a response rather than an inevitable consequence of her condition. Other people may be responsible for what I observe in her, she could be fulfilling a role, playing out their desires. If she has been offered no chance of relationship then there is a sense in which her mind has been condemned to death in the same way as disease or age have condemned her body. Even if I could establish that what I am witnessing is withdrawal I have no way of knowing the cause or causes of that state.

Now, if what I am witnessing is withdrawal, have I any way of knowing the intensity or otherwise of her inwardness. Whether the withdrawal goes further, involves perhaps a reaching out towards a state which succeeds this, is also something about which I can only speculate.

The ends of our existence dissolve into pure mystery. And would we have it otherwise? It lends a sense of challenge and excitement to our lives. Without travelling out from and towards the unknown we might be tempted to lapse into the kind of mindless habituation which can beset our middle years. It keeps us on our toes intellectually, sharpens our spiritual reflexes. Why were we given consciousness of self if not to ponder the dissolution or enhancement of the spirit? Mystics and other contemplatives may have leaned too far in the other direction and neglected the body's demands, but they perhaps win out in being more prepared for what may follow. Throughout my reflections the woman on the chair in front of me does not appear to have moved. She has vouchsafed no clue as to her awareness or otherwise of her situation. She remains half in bed, half out of it; perhaps half in life, half out of it? My empathy goes out to her in her profound isolation. My hand goes out to her in reassurance... do I imagine a slight presence of hers in response?

# the secret of happier mealtimes

changes to this routine may be emotionally and functionally disruptive. Long-term care facilities, however, cannot realistically cater to every resident's complete personal preferences. Group living, almost by definition, requires some level of compromise. This does not, however, mean that care providers should set policies and practices solely to suit their preferred organisational structure. Standards in nursing homes and market pressure make understanding and catering to your residents' preferences related to dining increasingly important. This includes, at a minimum, some choice in the timing of meals and some choice in what is served. More progressive facilities are also offering a choice of meal location, table companions and a greater array of food options.

### Evaluating the dining area

Let's go back and examine the case study of Grace. In her original location, staff worried she was not eating enough. The SLT evaluation showed no swallowing problems. The SLT began the evaluation by beginning a friendly, casual conversation with Grace as they walked to her office. Grace, delighted by the attention and wanting to please her new friend, was happy to eat almost all the food put in front of her, although she was a little disappointed that the therapist wouldn't share any of her food. In this situation, her mealtime abilities appeared quite functional.

Yet when returned to the dining room and relocated so staff could more easily observe her and encourage her to eat, Grace was clearly overwhelmed and failed to cope. An examination of the new situation will show what happened:

● **Visual stimulation.** Being in the middle of the dining room and along the main path that staff walked meant Grace was constantly surrounded by people moving briskly about. Having lived alone for many years before moving to the facility, Grace was used to eating in peace and quiet. Staff also seated her early, because it took her so long to eat. This she was constantly greeting other residents as they walked in after her, or left before her. It seemed rude to Grace to ignore her friends and acquaintances.

● **Lighting.** Although care had been taken to light the dining room evenly, when Grace sat by the wall, the fixture above her table shed light that bounced



The dining room at the Willows at Bethany Lutheran of LaCrosse has good natural light. Some residents might benefit from extra perimeter lighting and a dark tablecloth to contrast with the white dishes.

off the light-coloured wall, making her place setting just a bit brighter. The window behind her back added further light, especially during the midday meal in the middle of the room, the light dissipated and did not seem very bright except directly under one of the fixtures.

● **Visual contrast.** Grace also had a hard time seeing her plate clearly. The tables were set with white tablecloths, so it was hard to see the white china and silverware. This may have been due to her glaucoma and cataracts. The problems she faced may also have been exacerbated by her early dementia. Research has shown that people with Alzheimer's disease have decreased ability to perceive colour contrasts and have impaired depth perception. This means that when objects that are close together or on top of each other are close in colour or value (the lightness or darkness of an object on a gray scale), it is harder to see the edges of those objects. This is why, for instance, some facilities paint door frames a contrasting colour so the doorways are more visible. This same research has shown that people with Alzheimer's disease read more quickly and easily when contrast is increased (Koss & Gilmore, 1998).

● **Auditory stimulation.** By sitting near the main path, Grace heard a lot of pieces of conversation as people walked past. Sometimes Grace found it hard to keep the conversations separate as they seemed to run into each other. Her new

table companions, while quite friendly, spoke in loud voices to each other because one lady was growing deaf but was not ready to wear a hearing aid.

Compounding the problem was the background noise of the ice machine discharging ice cubes into plastic jugs, and the metallic clanging of silverware as the drawer was restocked during the meal. Being used to eating alone, Grace found it hard to cope with the noise.

### Designing the solution

After the second evaluation, a care plan meeting was scheduled with the SLT, dietician, nurse, personal care assistant who routinely helps Grace in her apartment, and Grace's daughter. They wanted to brainstorm how best to help Grace eat well and enjoy her meals more. They started by listing what was different about her new location in the dining room from her old one. Debbie, the care assistant, said she had been thinking about the meeting, but since she typically didn't help Grace with meals, she had been unsure how she would be able to help. But then she thought that maybe if she sat where Grace sat, she might learn something. So one day for five minutes she sat at Grace's old table, and then pulled up a chair to sit at her new one. Debbie said what struck her immediately was how busier and noisier the new table was. Even she had trouble concentrating, and she wasn't trying to focus on a meal.

Debbie said in her experience with Grace, things worked best if you did one task at a time, and didn't distract her while she was concentrating. The nurse, having reviewed the chart, indicated that with both glaucoma and cataracts, Grace's vision was quite poor. Cataract surgery had been discussed, but Grace, at 87, didn't feel she wanted to undergo surgery at her age. John, the dietitian, commented that breakfast was Grace's 'worst' meal, from a consumption perspective. Her plate almost always came back with almost all of her food still on it. Grace's daughter said her mother had never been much of a breakfast eater—a banana or bowl of cold cereal and a cup of coffee was all she ever had, and that was usually around 10.00am or so. Traditionally, dinner had been her big meal of the day, but she'd noticed recently that her mother had been tired in the later afternoons, sometimes saying she was too tired to go.

Armed with this information, they brainstormed some ideas for how to help Grace. They wanted to come up with ideas to present to Grace, and ask her which she thought she would like. First, they thought they would move Grace back to her quiet corner, and add an additional light on the wall above her table. They also decided to put a dark blue tablecloth on her table, so the white plate, napkins and cups would stand out and be easier to see. They asked whether she'd rather be seated early or late in the meal. Grace said she'd rather have breakfast later—'Something light please'—and into the dining room earlier for dinner. In the evening, she thought getting there early would give her plenty of time to eat, since she liked to eat slowly.

Staff were still concerned about the

general noise level of the dining room. Debbie said she had been in the dining room a lot, but it wasn't until she sat there for 10 minutes just looking and listening and thinking about it from Grace's perspective, that she realized how noisy the room was.

Some of the noise they could address immediately. For instance, several staff members had a tendency to treat the dining room like a fast-food restaurant, calling loudly to other staff when they wanted or needed something. An in-service training session was scheduled to work on this.

But some of the other noise was harder to manage, such as the ice maker. It was handy having it in the dining room so staff could quickly fill jugs to serve residents water. They looked for a new location, but the only practical one was too far away. Then someone suggested buying extra jugs, since they are not very expensive, and filling them all up before the meal. That way staff wouldn't have to use the machine during the meal itself. They also looked into adding a few movable wall partitions covered with highly rated acoustic materials to block the entrance to the kitchen a little. This way, the noise from the kitchen would not seep into the dining room.

After several weeks, it was clear the changes were working. Grace's caloric intake was up, and she was clearly enjoying her meals more. Occasionally she would invite someone to share her small table, while at other times she seemed to enjoy the peace and quiet of eating alone. She was no longer overwhelmed by too large breakfasts, eating her cold cereal or banana quite happily. Other residents also commented on how pleasant the dining room was, now that it was not so noisy.

### How well designed is your dining room?

- **Lighting.** There is often insufficient lighting in dining rooms (as well as other areas of care facilities). If you do not have access to a light meter, try wearing a pair of sunglasses smeared with a little petroleum jelly or lip balm. If after 15 minutes or so you find your eyes are tired, or you are taking the glasses off without thinking, then the dining room probably does not have enough light. Older individuals require three times the amount of light as younger people. So a dining room that is well lit for residents may seem overly bright to younger caregivers. Corners and areas around the perimeter of the room are often not as well lit as the centre of the room. Try adding lights and directing the light so it bounces off the walls.
- **Acoustics.** Pay attention to both people-generated and environmental sources of noise. Some are easier to address than others. Since dining rooms seldom are carpeted, it's important to look to other surfaces to absorb noise. If there are many windows—glass is a hard surface which bounces noise instead of absorbing it—use full drapes or curtains around them. The folds of the fabric will help absorb some noise. If the ceiling is high enough (usually 10 feet or more) fabric-covered acoustic panels that hang down several feet will both absorb noise and keep it from reverberating around the room. If ceiling panels are not feasible, add acoustic panels to the wall. They can be given an old-fashioned, elegant panelled effect if they are framed in with a little wood trim.
- **Visual environment.** In addition to lighting, consider other aspects of the visual environment. Be sure to provide high contrast between the plate and the table or place setting. Research projects have shown that this, along with increasing light levels, can be effective in increasing independence and caloric intake (Brush 2001; Koss & Gilmore 1998).
- **Presentation.** Also consider how the food is served. Some people will do better if they are given one course at a time. Too many choices may be overwhelming. You also need to consider the visual acuity of each resident. Someone who has had a stroke may not be able to see one side of the plate as well as the other.

### Meals – not just for eating

Thinking back on your life, how many memorable occasions involved a meal? Do you treasure a quiet meal at the end of a long day, either alone or with your family? Or are your meals full of fun and laughter, a chance to renew your balance.

Think about your residents, and ask about their preferences. Find creative ways to help them continue to find meals more than just an opportunity to eat.

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# How technology can help people feel safe at home

John Woolham and Brian Frisby describe the Safe at Home project, which used technology to help people with dementia to remain in their own homes in Northampton, and the results of a formal evaluation of the scheme.



Dr John Woolham (left), senior research officer, and Brian Frisby, locality commissioner, Northamptonshire Social Care and Health Directorate

The Northampton Safe at Home project was set up to find out if the use of new technology could help a small number of people with dementia to remain living independently for longer. It builds on the knowledge and expertise gained through Northamptonshire Social Services' role in an EU-funded project that produced the *ASTRID Guide* (Marshall 2000). The idea of setting up the project was a practical response to issues facing Northamptonshire Social Care and Health Directorate in reducing the use made of residential care and promoting independence among older people. The arguments for using technology in the care of older people with dementia have been presented elsewhere (Woolham J & Frisby B 2002; Marshall 2000; Gilliard 2001; Hagen *et al* 2002).

It was clear from the outset that the project needed to be a multi-agency collaboration. Three local organisations have contributed time and expertise. Partners included Northampton Borough Council, Northamptonshire Healthcare Trust and the Central Region Alzheimer's Society.

The project obtained a £60,000 grant from the corporate centre of the county council, which enabled it to employ a part-time project worker, purchase items of technology and rent a house in which the technology could be installed. The house was provided by the borough council housing department at a reduced rent and once redecorated and furnished, played an integral role in demonstrating to local carers and professionals how the technology available to the project could be used.

Before the start of the project, a promotional leaflet was designed and widely distributed within social and primary care agencies in Northampton, and operational protocols were designed. In particular, it was agreed that case accountability for people referred who were already open cases to the local care management or community psychiatric nursing service would remain with the CPN or care manager concerned. Although the project worker might assume case accountability for new cases, they would otherwise be accountable only for the work they did under the aegis of the Safe at Home project.

Criteria for referral were a formal diagnosis of dementia and that those referred lived in the borough of Northampton.

Some thought also went into the referral

and assessment process that was used in the project, and a series of documents were designed to mirror this process, and to collect data to support an evaluation.

The first of these documents was a short referral form that collected basic information about the referral, including the reasons for referral, relatives or others who might be prepared to respond if needed, and whether the person being referred was aware that the referral had been made. If the referral met the criteria and was accepted a series of linked documents were completed during a subsequent assessment phase. The main instrument used was an assessment schedule developed by the Alzheimer's Society. This instrument worked well in the project as it focused not only on what the person being assessed could no longer do, but also upon what they could do, or could do with support. This also reflected an early intention of the project to focus upon the person first and the technology second, rather than to try to fit the person into technology that might be available.

### Identified needs

Following assessment, a 'summary of response' form was developed. This summarised the needs identified in the assessment, the ways in which these needs were being addressed before the assessment, and the proposed solutions following the assessment—specifically, how technology might be used to address these needs. For example, an issue might be a tendency for the service user to get up during the night, become disoriented in time and go downstairs or even leave their home. A response before using technology might have been to lock the service user's bedroom—thereby effectively imprisoning them until morning, or to install a simple baby alarm, in which case the carer would hear all sounds coming from the service user's bedroom—creating a situation in which the carer's sleep would be impaired. The technological solution might be to install a 'bed-leaving' monitor to notify the carer only if the person got out of bed. A pressure mat placed by the bed, or a passive infra-red sensor placed on a door threshold could be used to the same effect.

At this stage in the process, the project officer would meet with the technical officer working from Northampton Borough Council's housing department to discuss