Feeding Beliefs of Certified Nurse Assistants in the Nursing Home

A Factor Influencing Practice

CNAs are often responsible for feeding nursing home residents. It is important their training include all factors that can influence feeding practices.

Cathy A. Pelletier, PhD

ABSTRACT

In this study, the author examined the feeding beliefs of 20 certified nurse assistants (CNAs) working in nursing homes using Q methodology and semi-structured interviews. Beliefs are defined as a combination of CNA feeding knowledge, experience, and values. Two groups of CNAs with contrasting belief systems emerged from the analysis. “Social feeders” believe feeding is a time to socialize with residents and “technical feeders” believe providing adequate nutrition is the main goal when feeding. CNAs felt their beliefs influenced their feeding practices. Training programs need to include all factors that may influence CNA feeding practices, such as CNAs’ beliefs, resident characteristics, and institutional factors.

Certified nurse assistants (CNAs) are the frontline staff who provide the majority of social interaction and physical care to nursing home residents. They are entrusted to implement many aspects of the individualized resident care plans developed from the Minimum Data Set (Health Care Financing Administration, 1992) and to manage extremely difficult situations involving conflict, ethical decisions, and the dying process. Long-term care nurses are responsible for training and supervising CNAs as they implement the individualized resident care plans.

One of the important tasks CNAs perform is feeding residents, with up to 45% of residents requiring some form of feeding assistance (Kayser-Jones, Schell, Porter, Barbaccia, & Shaw, 1999; Keller & Hirdes, 2000).

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Feeding dependency is associated with malnutrition, dehydration, aspiration pneumonia, and decreased self-esteem (Cooper & Cobb, 1988; Langmore, Skurupski, Park, & Fries, 2002; Langmore et al., 1998; Sidenvall, 1999). These undesirable outcomes may be caused by CNAs’ inadequate feeding knowledge and pressure to feed many residents within a short period of time (Langmore et al., 1998; Musson, 1994; Sanders, Hoffman, & Lund, 1992). In addition, inadequate staffing and nursing supervision during meals appears to contribute to poor feeding practices and sub-standard quality of care (Harrington et al., 2000; Kayser-Jones, 1997; Kayser-Jones & Schell, 1997; Simmons, Osterwell, & Schnelle, 2001).

The institutional culture of nursing homes can also present ethical conflicts for CNAs caring for residents as CNAs balance nursing home policies and procedures against residents’ values and norms related to many daily activities of living, including eating (Powers, 2001). Studies of nursing home mealtime procedures show residents are typically fed according to task-oriented institutionalized norms and practices, rather than resident-oriented approaches (Kayser-Jones, 1996; Sidenvall, 1999). According to Wiener and Kayser-Jones (1989), instead of providing an individualized frame of reference to resident care, institutional culture appears to encourage defensive care practices to avoid state citations and negligence accusations. These protective practices lead to skewed priorities when providing care and result in the acceptance of sub-standard care.

A conceptual framework proposed by the author outlines the complex, contextually dependent factors influencing CNA feeding practices (Figure). It is hypothesized that CNAs want to provide adequate nutrition with safety and dignity, but they need to prioritize these goals under certain situations. For purposes of this study, CNA beliefs about feeding are defined as a combination of feeding knowledge, previous feeding experience, and values related to feeding residents, especially the importance of providing adequate nutrition. Although feeding knowledge is an essential component to good feeding practices, it is only one of several variables influencing the feeding process. That is, how a CNA feeds a certain resident in a particular situation is based on an evolving integration and modification of their knowledge, experience, and values over time (Ford, 1992). Given this model, CNA training programs that only address feeding knowledge will be inadequate to improve CNA feeding practices.

The purpose of this study was to explore the feeding beliefs of a small, select sample of CNAs and how their beliefs influence their feeding practices. In other words, why do CNAs feed residents the way they do? This exploratory study examined the personal beliefs of CNAs feeding residents, using Q methodology (Brown, Durning, & Selden, 1999). The results of this study may prove useful in designing CNA feeding training programs that can anticipate how CNAs will feed residents, given their particular beliefs.

METHOD

Study Design

Q methodology is a method that uses factor analysis to try to make sense of the actions of individuals in context (Brown et al., 1999). It uses a matrix of columns of persons (in this case, CNAs) and rows (Q-sort statements) in factor analysis. Factor analysis results in a number of factors representing groups of individuals who sorted the statements similarly. The resulting groups identify individuals who share similar beliefs within a group, but opposing or distinctive viewpoints across groups. According to Q method procedures, initial interviews are conducted with a diverse, small sample to develop the instrument (i.e., Q-sort statements) used in the study. The goal of these interviews is to assemble the greatest diversity of views within the population of interest on a given topic (Brown et al., 1999, p. 601). These views are represented in the Q-sort statements.
In this study, the author identified 52 verbatim q-sort statements about feeding beliefs from the initial interview responses of a diverse, select group of eight CNAs from five nursing homes in upstate New York. These CNAs participated in 1-hour, semi-structured interviews conducted by the author about their feeding knowledge and beliefs. The CNAs involved in the initial interviews to develop the q-sort statements were younger (mean = 30.6 years, SD = 11.6) than the national average of 36.4 years (Yamada, 2002). They were more racially diverse (2 White, 3 Black, 2 mixed race, 1 Asian) than the national average as well. Four CNAs worked the 7 a.m. to 3 p.m. shift, two worked the 3 p.m. to 11 p.m. shift, and two reported typically working both shifts. They had been employed as CNAs for a mean of 4.4 years (SD = 6.7). The professional transcriber, who also was an RN with extensive long-term care experience, reviewed the q-sort statements identified by the author. She agreed they accurately represented the diversity of views expressed by the CNAs.

Participants

The majority of CNAs working in nursing homes are women, with a larger number of minority members than other work forces, and a mean age of 36.4 years (Pillemer, 1996; Yamada, 2002). In an attempt to reflect this diversity and provide “information-rich cases for study in depth” (Patton, 1990, p. 169), purposeful sampling was used to identify 20 female CNAs to complete the q-sorting task. These CNAs were all different from those initially interviewed to develop the q-sort statements. This sample of 20 CNAs from four nursing homes varied in race (White versus other), length of CNA employment (< 1 year and > 1 year) and shift worked (day versus evening). These CNAs were also participants in a larger study examining CNA knowledge of dysphagia and feeding nursing home residents (Pelletier, 2004). In addition to the q-sorting task, the larger study included non-participatory structured feeding observation of these CNAs during one meal on the job, critique of staged feeding behaviors on film, and semi-structured interviews on their feeding strategies and beliefs.

Although the sample completing the q-sort task was more racially diverse than the national average (11 White, 9 Black), the mean age of these CNAs (mean = 37.8 years, SD = 11.0 yrs) was similar to the national average (Yamada, 2002). Sixteen of 20 CNAs were employed more than 1 year, with one CNA at each nurs-

ing home employed less than 1 year (mean = 9.0 years, SD = 7.3). Half of the CNAs worked the 7 a.m. to 3 p.m. shift with the remaining CNAs on duty from 3 p.m. to 11 p.m. CNAs were compensated for their participation in the study.

To reduce researcher-as-instrument bias in the interpretation of the data (Weller & Romney, 1988), 4 of 20 CNAs were re-interviewed for their interpretation of the q analysis. Two CNAs from each group reviewed a narrative description of each factor that emerged from the data and provided feedback about their interpretation. They suggested names for each factor (i.e., group of CNAs), and described personality characteristics they perceived of each group.

Q-Sort Procedures

The typed q-sort statements were placed on index cards and randomly presented to the participants. Participants were instructed to sort the 52 verbatim statements in a forced quasi-normal distribution according to how much they agreed or disagreed with each statement (Brown et al., 1999) using a −3 to +3 rating scale. They were informed there was no right
<table>
<thead>
<tr>
<th>CNA Group A</th>
<th>Most Distinguishing Q-Statements</th>
<th>z-score</th>
</tr>
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<tbody>
<tr>
<td>1.</td>
<td>During feeding, you get time to get to know this person and see how it is to be them.</td>
<td>+1.03</td>
</tr>
<tr>
<td>2.</td>
<td>When I get to feed them, it seems like I can finally sit down and take time with my residents.</td>
<td>+1.20</td>
</tr>
<tr>
<td>3.</td>
<td>Some residents have interesting stories to share with you at dinnertime, if you ask them a question.</td>
<td>+1.29</td>
</tr>
<tr>
<td>4.</td>
<td>I know how to feed people.</td>
<td>+1.05</td>
</tr>
<tr>
<td>5.</td>
<td>Feeding is actually a very simple little thing; it's pretty surprising that it's not as bad as everyone thinks it is.</td>
<td>+0.64</td>
</tr>
<tr>
<td>6.</td>
<td>Feeding residents might come natural to some people, but for me, I had to get used to it.</td>
<td>-1.53</td>
</tr>
<tr>
<td>7.</td>
<td>There aren't any residents that are easy to feed; they all have their moments.</td>
<td>+1.03</td>
</tr>
<tr>
<td>8.</td>
<td>I have a couple [of residents] that don't want to talk; it's hard because you are supposed to sit there and talk to them, no matter what.</td>
<td>-1.30</td>
</tr>
<tr>
<td>9.</td>
<td>I actually get happier when the families come in to feed because I feel like they are getting more; they actually eat better for their families.</td>
<td>+1.52</td>
</tr>
<tr>
<td>10.</td>
<td>Sometimes when you are short [staffed], you have to be in a hurry to feed.</td>
<td>-1.73</td>
</tr>
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<tr>
<th>CNA Group B</th>
<th>Most Distinguishing Q-Statements</th>
<th>z-score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Our biggest problem is the menu because it seems to me it's the same stuff every week.</td>
<td>+0.78</td>
</tr>
<tr>
<td>2.</td>
<td>Nothing I did in CNA class on feeding is the same here.</td>
<td>-1.08</td>
</tr>
<tr>
<td>3.</td>
<td>Feeding residents might come natural to some people, but for me, I had to get used to it.</td>
<td>+1.00</td>
</tr>
<tr>
<td>4.</td>
<td>When a resident isn't eating, the nurses don't understand exactly what we're saying when we tell them; we just have to say, &quot;Come here. I'll show you what I mean.&quot;</td>
<td>-0.80</td>
</tr>
<tr>
<td>5.</td>
<td>When another CNA does not do her job, I feel let down and angry.</td>
<td>+1.92</td>
</tr>
<tr>
<td>6.</td>
<td>Sometimes when you're short [staffed], you have to be in a hurry to feed.</td>
<td>+0.77</td>
</tr>
<tr>
<td>7.</td>
<td>I would personally rather drive myself crazy trying to feed them, rather than have them sent to the hospital and get a g-tube; I think those are one of the worst things in the world.</td>
<td>+1.44</td>
</tr>
<tr>
<td>8.</td>
<td>When a resident reaches a certain point in their life and they decide to give up, I don't feel that I should have to keep pushing them on it; they're tired and they want to go.</td>
<td>-1.26</td>
</tr>
<tr>
<td>9.</td>
<td>I believe we need to keep trying to feed as long as they're here, every day of their life.</td>
<td>+0.83</td>
</tr>
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or wrong answer and each statement was previously expressed by a CNA. No time limit was imposed. At the completion of the q-sort, CNAs explained to the author why they chose those statements at the extreme tails of the scale to aid interpretation. The interviews were audio-taped, transcribed, and coded using Ethnograph v. 5.0 for analysis (Seidel, 1998).

Q Analysis
The q-sort statements were analyzed using the centroid method and varimax rotation with Q software called PQ Method (Schmolck, 2000). The results from this analysis calculated the average score CNAs gave each statement in a factor (−3 to +3) and converted each score to a z-score to standardize the distribution across all 52 statements. The statements were arranged in terms of highest agreement (highest positive z-scores) to least agreement (lowest negative z-scores). Inductive qualitative analysis was conducted with the Top 10 agree and Top 10 disagree statements, and the most distinguishing statements associated with each factor (20 to 22 statements total each factor).

RESULTS
Q analysis showed that two factors emerged from the data, suggesting there were two groups of CNAs with distinctive feeding belief systems in this sample (Table). Group A CNAs believed feeding residents is a time to socialize, while group B CNAs believed it is most important to make sure residents eat adequately.

It is important to emphasize the factors generated by Q method represent general viewpoints of this particular sample (Brown, et al., 1999, p. 623). In other words, the two factors
(groups) that emerged from the data represent two different ways CNAs think about feeding residents and the qualitatively dissimilar beliefs will "retain their distinctive features no matter how many individuals of each kind are included in a study" (Brown, et al., 1999, p. 623). It is equally important to acknowledge that different CNA samples may reveal additional factors, and the two factors identified might not appear in every future study.

**Group Characteristics**

Eight CNAs were members of Group A and seven were members of Group B. Five CNAs were not sufficiently similar to either group to be categorized into group A or B, and in keeping with Q methodology procedures, were excluded from further analysis. This means these five CNAs held dissimilar feeding beliefs from each other, and from the beliefs held by the other group members. This does not mean their individual beliefs are not valid or important, but they were idiosyncratic to this sample. Because the goal of Q analysis is to understand the dominant viewpoints of groups of individuals, in-depth analysis was conducted only on the two CNA feeding viewpoints identified. Groups A and B had similar mean ages and length of CNA employment, and represented all four nursing homes.

The four CNAs re-interviewed for their interpretation of the data labeled group A CNAs as “social” feeders and group B CNAs as “technical” feeders. According to these CNAs, social feeders are “flexible, relaxed people...[who] go with the flow.” Technical feeders are “more emotional, perfectionists...[who] want to go by the book.” These CNAs stated they could recognize themselves associated with one group (matching the Q analysis) and knew CNAs who fit both group descriptions. They believed the narrative was an accurate description of their beliefs.

**DISCUSSION**

Exploratory investigation of CNA beliefs about feeding residents suggested there are two kinds of feeders, which was confirmed by CNAs themselves. These two groups prioritize feeding goals differently. Social feeders believe meeting the psychosocial needs of the resident is just as important as providing adequate nutrition, whereas technical feeders believe providing adequate nutrition is most important in their feeding practices. Technical feeders recognize the value of socialization, but their main job is to get a resident to eat. These two types of staff feeders approach residents differently, especially in how hard they may “push” them to eat. For instance, social feeders stated they may observe a technical feeder “force-feeding” a resident, while the technical feeder believes he/she is just trying to get the resident to consume adequate nutrition. In contrast, technical feeders reported watching social feeders and thinking they are “slacking off” and not trying hard enough to get the resident to eat.

These data suggest CNAs may react differently to various resident characteristics and institutional situations. Both groups appeared to care deeply for their residents, but they held distinctive beliefs that led to different feeding practices. In research examining the nutritional goals parents have for their preschoolers, parental feeding beliefs similar to those expressed by these CNAs were reported (Santi, 2000). In other words, parents of preschoolers also may be “social” and “technical” feeders, which lends support to the idea these belief systems exist across caregivers who feed others.

**STUDY LIMITATIONS**

This study was conducted with a small, select sample of CNAs from one geographic area. Despite efforts to include the greatest diversity of views possible, CNAs with little feeding experience (employed less than 1 year) were not well represented in the development of the q-sort statements or in the sorting task. Thus, the feeding beliefs of these CNAs may not be adequately represented in this study. Given the high turnover in CNA employment nationally, future studies need to investigate methods to increase study participation by less experienced CNAs. It is possible that future studies with different samples may reveal additional or different factors than those identified by this analysis.

This study focused on investigating CNA feeding beliefs and practices. It was not an outcome study to examine the adverse effects of CNA feeding practices with residents. Although feeding dependency appears related to malnutrition, dehydration, and aspiration pneumonia in residents, empirical studies are needed to identify what specific feeding practices are associated with these adverse results. For example, does a rapid feeding rate increase the incidence of pneumonia? There are no data available yet to answer these important questions.

**CLINICAL IMPLICATIONS**

These data suggest that the way CNAs feed residents is based on their personal feeding beliefs, not solely on their feeding knowledge. Depending on their feeding beliefs, it is hypothesized CNAs will modify their feeding practices differently when presented with particular resident and institutional factors. A CNA will react differently to challenging resident feeding behaviors (e.g., not opening mouth to eat) and institutional factors, such as feeding unfamiliar residents when short-staffed. The social feeder may stop trying to feed a resident quicker than a technical feeder, especially if the resident is difficult to feed. The technical feeder may appear to be "force-feeding" a resident if the resident does not readily accept oral nutrition.

CNA training programs should prepare CNAs for the feeding decisions they are required to make.
CNAs may benefit from a discussion with their nursing supervisor about the common feeding problems they are likely to face. In this manner, nursing supervisors can help CNAs anticipate and solve these problems, acknowledging that the "best" solution may vary according to individual beliefs and the specific situation. In-service instructors in one nursing home studied had CNAs submit feeding problems in writing for later follow up. This simple activity provided insight into the CNAs' perceived feeding problems and offered a mechanism for professional staff to respond. Staff in all CNA training programs should consider using this activity, preferably gathering this information prior to the in-service so collective problem-solving can occur within the group.

In addition, CNAs stated it was enlightening to learn about different feeding beliefs. In training programs that share this study's results, tension may be reduced between CNAs who possess contrasting beliefs and feed differently. Better problem-solving skills can occur when individuals are involved in active reflection on their feelings and actions (Sims, 1981). CNAs should be encouraged to reflect on their belief system and actively recognize the decisions they are making while feeding.

As feeding beliefs are shared with CNAs, it would not be appropriate to judge one group as "better" feeders than another. In fact, the ethical decisions and context-dependent situations occurring during each meal make training lists of "good" and "bad" feeding techniques difficult to develop. For example, telling CNAs not to force-feed a resident is important, but it is difficult to state exactly what behaviors constitute force-feeding. How many times should CNAs try to feed before stopping? Each situation will be different and involve a CNA's belief system, as well as residents' characteristics (e.g., familiarity to CNA, weight and nutritional status, alertness, severity of dysphagia) and institutional factors (e.g., short-staffed that day, meal choices not acceptable to resident). Nursing supervisors should discuss all factors that might influence feeding practices with CNAs. In this manner, supervisors can better prepare CNAs for the challenges of feeding residents on a unit and facilitate open discussion of how they might resolve various problems that arise.

REFERENCES