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## Knowledge to Practice: Nursing Home Staff Intentions for Learned Communication Skills

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### Abstract

**Background**—Staff education is critical to improving nursing home dementia care practice. However, a lag in translation to practice is a barrier to improving care. As part of a clinical trial testing effects of a communication intervention on behaviors of residents with dementia, participant-reported likelihood of using learned skills in practice was evaluated in relation to organizational and individual factors in ten nursing homes.

**Hypotheses**—We hypothesized that organizational and individual factors would influence staff intention to use new skills in practice.

**Results**—Pre and post-training comparisons confirmed that staff gained knowledge about communication effectiveness. Staff reported high likelihood for using skills in practice based on modified Duke Diffusion of Innovation (DOI) Scale scores. Care organization was correlated with total DOI scores ( $r = .82, p < .01$ ). DOI subscales correlations to organizational and individual attitudes are reported.

**Conclusion**—Evaluating quality improvement interventions in relation to translation to practice is essential in today's nursing home environment.

### Keywords

Nursing Home; Inservice; Translation to Practice

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As the number of older adults with dementia continues to grow, educating professional and paraprofessional nursing home (NH) staff in evidence based practices and innovations is essential for assuring quality care (Alzheimer's Association, 2015). Educational programs

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are typically used to transmit new knowledge to staff. However, a lag in translation to practice is a barrier to improved care (Institute on Medicine, 2009). Discovery of innovations and knowledge for improved care is wasted if bedside clinicians do not receive this information in a timely manner and then enact it in practice.

A variety of disciplines have studied knowledge transfer and organizational learning as key factors in practice change (Moullin, Sabater-Hernández, Fernandez-Llimos, & Benrimoj, 2015; Wisdom, Chor, Hoagwood, & Horwitz, 2014). Diffusion of Innovation (DOI) theory was developed by Rogers (2003) and initially used in fields such as agriculture and public health but more recently has been applied to clinical health care and long term care settings (Berta et al., 2005; Kovach, Morgan, Noonan, & Brondino, 2008; McConnell et al., 2012). Key to this theory is the perception of the clinician, communication about the innovation (new skills), and system and environmental factors that may affect implementation in practice.

Research has established a link between NH staff communication and challenging or resistive behaviors of residents with dementia who they care for. Notably, challenging behaviors more than double when staff used a patronizing speech style called elderspeak (Williams, Herman, Gajewski, & Wilson, 2009).

The Changing Talk (CHAT) intervention was designed to increase staff awareness of elderspeak (communication that sounds like baby talk) and to practice more effective communication. CHAT was designed to promote implementation by staff in busy NH settings because staff can self-monitor and modify communication in practice using simple CHAT communication techniques (Williams, Kemper, & Hummert, 2003). As part of clinical trial testing effects of a communication intervention on behaviors of residents with dementia (Williams, Perkhounkova, Bossen, & Herman, 2015), participant-reported likelihood of using skills learned in the training was evaluated in relation to organizational and individual factors.

This paper reports the evaluation of staff knowledge gained from the CHAT program, staff reported likelihood of using new communication skills in practice, and relationships to factors that impact the diffusion of innovations in LTC settings. Using the DOI framework can help to identify needed modifications and barriers to overcome in promoting implementation knowledge and skills in practice.

## METHODS

The study was approved by the University IRB, by individual administrators in each NH, and by corporate NH administration as applicable. NHs participated on a rotating basis over a three year period from 2011–2014.

### Sample

A regional chain of NHs was recruited for the study. Additional NHs in Kansas were added using snowball sampling. Eleven NHs participated in CHAT training and completed data for evaluation. The CHAT program was made available to all staff in these communities with

each of the three sessions offered multiple times in one week on several shifts to accommodate staff schedules. Staff attended on paid time, although some had to attend outside their normal work hours. Not all participants attended all sessions.

A subset of attendees in the CHAT program (n=39) were invited to participate in research using video recordings as a tool for measuring staff communication and resident behaviors. Those study participants additionally provided descriptive information about themselves, completed surveys about their supervisor's leadership style, their attitudes toward persons with dementia and confidence working in dementia care, and their mutuality or perceived closeness to care recipients.

## INTERVENTION

The Changing Talk (CHAT) communication training is intended to assist attendees in identifying effective and problematic communication that occurs in LTC environments. Each of the three one-hour sessions integrates video clips and discussion to illustrate and evaluate staff communication and its impact on residents. CHAT features an interactive format with limited didactic information. Participants observe recordings from nursing homes and critique and discuss, correct, and role play effective communication from the videos. The evidence-based program is described in detail elsewhere (Williams et al., 2004).

## MEASURES

All staff attending the CHAT training were asked to complete a program evaluation at the end of each session. In addition, participants completed the CHAT Intervention Communication Rating Scale prior to the training (beginning of Session 1) and at the end of the training (Session 3). Participants finally completed the modified Duke Diffusion of Innovation in Long Term Care Scale after completing the third training session. See Table 1 for a listing of survey measures used in the study.

### All CHAT Attendees

The CHAT Intervention Communication Rating Scale was administered pre and post-training to assess the knowledge gain of all participants in the CHAT training. Participants watched a video of a staff-resident interaction recorded in an actual NH and individually rated staff communication at the start of session one. After the final (third) session, each participant again rated the same clip. The ratings assess the staff's ability to identify elderspeak, and other appropriate and inappropriate communication practices. Six yes/no type questions measure the ability to identify elderspeak (i.e. babytalk and terms of endearment) and four yes/no questions measure the ability to identify of person-centered communication (i.e. acknowledging the resident). Overall effectiveness and appropriateness of communication are assessed each by one five-point Likert-type question.

A revised version of the Duke Diffusion of Innovations in Long Term Care Battery (DOI-LTC) (McConnell et al., 2012) assessed participant perceptions of the communication practices taught in CHAT and the likelihood that they will use the skills in practice. The revised DOI-LTC scale includes 20 items in four subscales, each rated on a six-point scale.

Subscales include ratings of relative advantage, complexity and compatibility with current care practices, ability to observe new practices and effect on image, and organizational support for the innovation. Participants completed the measures anonymously.

Finally, all CHAT training attendees completed a program evaluation that addressed the value of the information, whether the program objectives were met, and the quality of the instructor. These anonymous evaluations were completed at the end of each session.

### **Participants in Video Recording Research**

The staff who participated in the video recording study provided demographic information about themselves and completed additional surveys, reporting on their perceptions of supervisory style and their satisfaction and efficacy for working with residents with dementia.

The Staff Perceptions of Supervisory Style survey was collected because supervision style is known to influence quality improvement (Forbes-Thompson, Gajewski, Scott-Cawiezell, & Dunton, 2006; Scott, Vojir, Jones, & Moore, 2005). Scott and colleagues (2005) modified a hospital-focused scale focused on communication, teamwork, and leadership to the NH environment. The scale of 11 items developed for use by certified nursing assistants was utilized for this study (Forbes-Thompson et al., 2006).

The Staff Experience Working with Demented Residents measure (Astrom et al., 1991), a 20-item survey rated on a five-point scale that provides a global satisfaction score was also completed. The survey assesses six domains, including attitudes, satisfaction with working in dementia care, and satisfaction with patient contact, expectations, and the environment (Zimmerman, et al., 2005).

Five survey questions, based on research by Zimmerman et al., (2005) were used to query staff about the perceived effectiveness of their skills communicating and managing challenging dementia behaviors. One additional question addressed satisfaction with communication with residents. A one item Likert scale measure to assess satisfaction was adapted from Aiken et al.'s study of hospital nurse satisfaction (Aiken et al., 2002).

Finally, the Mutuality Scale that assesses relational closeness with residents was collected (Archbold, Stewart, Greenlick, & Harvath, 1990; Heliker D. & H., 2010). The scale consists of 15 questions using a five-point rating scale with 0 being "not at all" and 4 being "a great deal." The scale has four concepts (subscales); shared values, affective closeness, shared pleasurable experiences, and reciprocity.

## **ANALYSES**

Replies to all measures were tabulated and total and subscale scores were calculated. The Mann-Whitney U test was used to compare CHAT intervention communication ratings pre- and post-training. For the staff participating in the video clips recording study, paired-sample t-test was used to compare attitudes towards residents, confidence, satisfaction with communication, and mutuality scores before the intervention and one month after.

Pearson correlations coefficients were calculated between pre-training Diffusion of Innovation Scale scores and Attitudes towards Residents Scale scores and responses to surveys of supervisory style, mutuality, and confidence, all averaged for facility.

## RESULTS

The eleven NH communities included in this study ranged in size from 43 to 163 beds ( $M = 85$  beds) and were distributed between rural and urban locations (Table 2). Two facilities were for profit and half had at least one Special Care Unit (SCU). Star ratings are taken from Medicare.gov that posts a summary quality rating ranging from 1 to 5 for NHs based on inspection results, staffing data, and quality measure data. Medicaid case mix reflects resident acuity and care needs to determine Medicaid reimbursement rates (Harrington & Swan, 2003; S. Zimmerman et al., 2005).

A total of 250 staff, primarily certified nursing assistants, attended the CHAT training program across eleven facilities. Staff rated the training program highly on a 1–5 scale for overall quality, meeting objectives, and instructor (mean rating ranged 4.5 – 4.8, across the three training sessions). Summary of the program evaluation are provided in Table 3.

Table 4 reports means and standard deviations for the CHAT Intervention Communication Rating Scale ratings, prior to the training (Session 1) and after the training (Session 3). Improved scores from pre to post training were noted on all four ratings of communications shown in the training video clip ( $p = .01$  for evaluating communication effectiveness;  $p < .001$  for evaluating communication appropriateness;  $p < .001$  for recognizing elderspeak; and  $p = .02$  for recognizing person-centered communication). Staff ability to recognize elderspeak improved in three of the six items: babytalk recognition increased from 36% to 66% ( $p < .001$ ), terms of endearment recognition increased from 56% to 72% ( $p = .001$ ), and inappropriate pronoun substitutions identification increased from 34% to 70% ( $p < .001$ ). With regard to recognition of person-centered communication strategies, staying on topic decreased from 54% to 44% ( $p = .05$ ), acknowledging the resident decreased from 54% to 36% ( $p < .001$ ), and using the resident's name increased slightly from 7% to 12% ( $p = .06$ ).

Thirty-nine of the staff who attended the training also participated in the video recording study that evaluated the effect of the training on communication and resident behaviors (Williams et al., 2015 ). Table 5 provides descriptive information for staff participants across ten facilities that participated in the video recording study. Ninety-five percent of the participants were certified nursing assistants, 36 years old on average (ranging from 20 to 69 years), and had, on average, 11 years of experience in healthcare (ranging from 3 months to 46 years).

As hypothesized, responses on surveys of attitudes, confidence, satisfaction, and mutuality showed little change when the surveys were repeated soon after the training. The exception was satisfaction with own expectations that increased ( $t = 2.59$ ,  $p = .01$ ) and confidence with communication skills that decreased ( $t = -2.47$ ,  $p = .02$ ) after the CHAT training.

Correlations between the Attitudes towards Residents and Diffusion of Innovation (DOI) total and subscale scores, averaged for each facility, are provided in Table 6. Note that we

reversed the correlation signs to allow interpretation of higher likelihood for diffusions ratings in relation to more positive attitude scores. Higher attitude scale scores for care organization correlated with higher DOI total scores ( $r = .82, p = .01$ ) and three DOI subscale scores ( $r = .78, p = .01$  for relative advantage of the new skills;  $r = .70, p = .04$  for complexity and compatibility with current work practices; and  $r = .65, p = .06$  for intention to use new skills. Higher satisfaction with the expectations of others correlated with lower organizational support for innovation ( $t = -.63, p = .05$ ) and intention to use new skills ( $t = -.70, p = .02$ ). Not significant at .05 level, but a large correlation ( $r = .59, p = .09$ ) was observed between satisfaction with own expectations and relative advantage of the new skills. Finally, total scores on the Attitudes towards Residents scale correlated with relative advantage of the new skills ( $t = .69, p = .03$ ).

Additionally, associations were discovered between DOI scores and other surveys. Higher affective closeness ratings from the mutuality scale were associated with higher relative advantage of the new skills ( $r = .58, p = .08$ ), while higher shared pleasurable experiences ratings from the mutuality scale were associated with lower complexity and compatibility with current work practices ( $r = -.71, p = .02$ ). Higher ratings of satisfaction with resident communication from the confidence scale were associated with lower organizational support and intention to use new skills (both  $r = -.67, p = .03$ ). Finally, higher ratings of supervisory style were associated with higher relative advantage of the new skills ( $r = .58, p = .08$ ).

## DISCUSSION

Overall the program evaluation and comparisons of pre- and post-training ratings of communication illustrated the success of the CHAT intervention in increasing staff awareness of communication in dementia care across a sample of nursing homes of varied size, location, acuity, and quality ratings. Program evaluations were consistently high and improved ratings of communication demonstrated knowledge gains. These evaluations identified what features of elderspeak staff became aware of (i.e., identification of babytalk, terms of endearment, and inappropriate pronoun substitutions). These positive evaluations mirror prior research involving nursing staff in eight NHs (Williams et al., 2003; 2006). Specific information about the CHAT intervention and examples illustrating changing communication to reduce elderspeak are detailed in an earlier Journal of Gerontological Nursing article (Williams et al., 2004).

Features of person-centered care that staff did not identify readily post-training (staying on the resident's topic, asking questions to clarify, acknowledging the resident, and using the resident's preferred name) can be emphasized to improve the program in the future. In addition, providing NH staff access to the CHAT training online (Coleman, Fanning, & Williams, 2015) and in interactive online modules is being tested to expand dissemination (contact author for information).

Other interventions have effectively trained staff in communication (Harwood et al., 2012; Vasse, Vernooij-Dassen, Spijker, Rikkert, & Koopmans, 2010). However, the evidence-based CHAT program uniquely focuses on guided practice of specific communication strategies that staff can readily apply and monitor in practice. CHAT training has consistently reduced

elderspeak in recorded staff-resident interactions (Williams, 2006; Williams, Kemper, & Hummert, 2004; Williams et al., 2015 ). In the most recent study, reductions in elderspeak were associated with reduced resistiveness to care (or aggressive behavior) in residents with dementia (Williams et al., 2015 ). CHAT efficiently targets adult learners in 3 sessions using applied strategies tailored to avoid specific aspects of elderspeak that are modifiable. Limiting the focus of CHAT in a single component intervention compared to bundled interventions, permits evaluation of true effects (Conn, Rantz, Wipke-Tevis, & Maas, 2001; Whittemore & Grey, 2002). Limiting content and complexity also minimizes the burden to staff participants and their NH employers and increases the likelihood of skill enactment (Banazak et al., 2000).

The findings suggest that NHs working toward quality improvement or implementation of evidence based practices will benefit from evaluating and strengthening organizational factors before embarking on new initiatives. Helpfulness between coworkers, coordination between shifts, and organization of their supervisor, all components of an organized workplace, were rated by participants as representing care organization. Higher staff ratings on these care organization factors were associated with increased likelihood to use skills in practice and perceived advantage of using learned skills, finding skills compatible with their current practices, and overall intentions to use the skills whether mandatory or not.

Staff who had higher attitudes about satisfaction with expectations of others tended to rate lower the organizational support for innovations and their own intention to use new skills. This may reflect a disempowerment that some staff experience related to job stress and burnout. To support translation of new skills to practice, NHs need to work on staff empowerment prior to interventions to achieve the strongest outcomes.

Assisting staff to value their own expectations may be one way to empower them to implement innovations in practice. For example, supervisors may work with staff to identify their values and to set individual goals for providing care. In this study, staff who reported higher satisfaction with reliance on their own expectations had higher ratings of the relative advantage of using new skills.

Positive associations between relative advantage ratings for new skills and effective supervisors and mutuality with residents approached statistical significance and should be investigated further. A limitation of this study was the small sample size; although the number of individual participants was high, analyses were conducted at the NH level, so that the sample size was actually only 10 NHs (because DOI scale scores cannot be identified by participant). Despite the limited sample, CHAT training yielded positive results for NHs of varying size, acuity, and location.

The use of a convenient sample is also a limitation of this study. Some information describing participants was limited due to using anonymous program evaluations and pre- and post-training ratings to encourage participation. There were differences in attendance between NHs and varying group size. In addition, not all participants attended all three sessions of CHAT training, reducing the dose of the intervention they received. These

limitations reflect challenges to conducting research and evaluating quality improvement initiatives in long term care.

Improving knowledge and awareness of staff about communication did not change their attitudes of satisfaction related to working with residents with dementia, ratings of their supervisor, or ratings of mutuality with residents. However, staff did report significant reductions in confidence in their communication skills after training. This may be due to their needing to practice using the new skills they learned in the practice environment before achieving confidence. Increased satisfaction with their own expectations after the training may reflect beliefs that they can improve the quality of care they provide.

Designing effective interventions may be improved by evaluating likelihood of diffusion of innovations into practice as well as actual outcomes. For example, interventions such as CHAT could be improved by emphasizing the relative advantage of the new skills and other positive aspects such as image and compatibility with current work practices. In addition, adult learners benefit most from educational activities that are readily applicable, interactive, and engage them. Providing feedback to staff as they implement new skills in practice can reinforce their learning and its value to improve care.

Within the Diffusion of Innovations Framework (Cain & Mittman, 2002), 10 critical dynamics that support diffusion of innovation are met by CHAT. CHAT alerts participants to the relative advantages of CHAT communication and provides an opportunity to try out and self-monitor their communication. Adoption is facilitated by the limited focus on a few features of elderspeak, resulting in communication that complements person-centered care. CHAT leads staff through the innovation-decision process by actively engaging them in taking the perspective of the resident in viewing and correcting actual vignettes of NH communication. Participants evaluate and confirm their decision to improve communication with residents through role play while practicing new skills to implement in practice.

Providing direct care staff with the latest knowledge of evidence based best practices is an essential first step to providing quality care for persons with dementia. Evaluating implementation of interventions is part of quality improvement and is an indication of translation to practice, an essential process for improving dementia care in today's nursing home environment (Alzheimer's Association, 2009).

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**Table 1**

## Study Measures

<b>Measures completed by all CHAT training attendees</b>	<b>Number of items</b>	<b>Scale reference</b>
CHAT Intervention Communication Rating Scale	12	(Williams, 2001)
Communication effectiveness	1	
Communication appropriateness	1	
Recognizes elderspeak	6	
Recognizes person-centered communication	4	
Program evaluation	8	(Williams, 2001)
Diffusion of Innovation in Long Term Care Scale	20	(McConnell et al., 2012)
Relative Advantage	7	
Complexity & compatibility	6	
Image	3	
Organizational support	2	
Intention to use	2	
<b>Additional measures completed by research participants</b>	<b>Number of items</b>	<b>Scale reference</b>
Supervisory style	11	(Forbes-Thompson et al., 2006)
Attitudes Towards Residents Scale	20	(Astrom et al., 1991)
Experience of feedback at work	6	
Care organization	3	
Satisfaction with own expectations	2	
Satisfaction with patient contact	3	
Satisfaction with expectations of others	3	
Satisfaction with the environment	3	
Confidence & satisfaction with communication	3	(S Zimmerman et al., 2005)
Mutuality	15	(Archbold et al., 1990)

Note: Program evaluation and Diffusion of Innovation in Long Term Care scale were administered at the end of each of the three training sessions. CHAT Intervention Communication Rating scale was administered pre and post-training. Additional measures were collected before the intervention, and 1 month after.

Participating Nursing Home Characteristics

Table 2

Facility	Resident Beds	Special Care Units	Medicaid Case Mix	Locale	CMS Star Rating	Average CHAT session attendance
Nursing home A	60	1	0.92	metro	4	11
Nursing home B	60	0	1.02	micro	4	32.3
Nursing home C	163	6	1.07	metro	3	12
Nursing home D	156	2	0.96	metro	3.7	39.7
Nursing home E	90	0	1.21	metro	5	17.7
Nursing home F	60	1	1.03	micro	5	27
Nursing home G	43	0	1.05	micro	5	14
Nursing home H	60	0	1	micro	5	9.7
Nursing home I	70	0	1.03	metro	1	30
Nursing home J	90	1	1.03	metro	2.7	20.3
Nursing home K	60	0	1	metro	5	32

Note: Metro area contains a core urban area of 50,000 or more population; micro area contains an urban core of at least 10,000 (but less than 50,000) population. Each metro or micro area consists of one or more counties and includes the counties containing the core urban area, as well as any adjacent counties that have a high degree of social and economic integration (as measured by commuting to work) with the urban core.

Table 3

## Training Program Evaluation

	Session 1		Session 2		Session 3	
	n	M ± SD	n	M ± SD	n	M ± SD
Overall Program Rating	248	4.6 ± 0.5	216	4.6 ± 0.5	181	4.7 ± 0.5
Meets Program Objectives	249	4.6 ± 0.5	216	4.5 ± 0.5	182	4.7 ± 0.5
Instructor Rating	250	4.7 ± 0.5	217	4.7 ± 0.5	182	4.8 ± 0.4

Table 4

Ratings of Communication in the Training Video Clip

	Session 1		Session 3		<i>p</i>
	<i>n</i>	<i>M ± SD</i>	<i>n</i>	<i>M ± SD</i>	
Communication effectiveness	196	2.4 ± 1.1	198	2.1 ± 1.0	.01
Communication appropriateness	195	3.0 ± 1.1	195	2.5 ± 1.0	<.001
Recognizes elderspeak	194	0.5 ± 0.2	199	0.7 ± 0.2	<.001
Recognizes person-centered communication	196	0.4 ± 0.3	197	0.3 ± 0.3	.02

Note: Decreased scores on communication effectiveness and communication appropriateness indicate increased awareness of communication ineffectiveness and inappropriateness in the video clips. Increased recognition of elderspeak and decreased recognition of person-centered communication indicate improved ability to identify these communication styles, or lack thereof, in the video clips.

Table 5

## Demographic Information for Staff Participants in Video Recording Research

Facility	n	Role (% CNA)	Age M $\pm$ SD	Years as Caregiver M $\pm$ SD	Gender (% Male)	Race (% White)	Ethnicity (% Hispanic)
Nursing home A	2	100%	41.0 $\pm$ 9.9	7.5 $\pm$ 0.7	50%	50%	0%
Nursing home B	2	100%	41.0 $\pm$ 7.1	15.0 $\pm$ 7.1	0%	100%	0%
Nursing home C	4	75%	32.3 $\pm$ 5.7	5.8 $\pm$ 5.8	75%	50%	25%
Nursing home D	3	67%	46.0 $\pm$ 9.8	7.3 $\pm$ 6.9	0%	67%	33%
Nursing home E	4	100%	44.3 $\pm$ 19.7	12.0 $\pm$ 13.0	25%	50%	25%
Nursing home F	7	100%	33.0 $\pm$ 10.2	11.2 $\pm$ 10.7	14%	86%	14%
Nursing home G	3	100%	41.3 $\pm$ 3.2	16.0 $\pm$ 4.0	0%	100%	33%
Nursing home H	9	100%	35.9 $\pm$ 15.8	14.8 $\pm$ 15.3	22%	89%	0%
Nursing home I	4	100%	24.0 $\pm$ 4.1	4.6 $\pm$ 2.2	0%	100%	25%
Nursing home J	1	100%	30.0	9.0	0%	0%	0%
Nursing home K	0	N/A	N/A	N/A	N/A	N/A	N/A
All Facilities	39	95%	36.2 $\pm$ 12.3	10.9 $\pm$ 10.2	21%	77%	15%

Note: Nursing home K did not participate in the video recording study.

Correlations between Attitude Survey and Diffusion of Innovation, Averaged for Facilities

Table 6

	Relative advantage	Complexity & compatibility	Observability & effect on image	Organizational support	Intention to use	Diffusion of Innovation total
Experience of feedback at work (n=10)	.17 (.64)	-.30 (.40)	.44 (.20)	.50 (.14)	.09 (.80)	-.02 (.96)
Care organization (n=9)	<b>.78 (.01)</b>	<b>.70 (.04)</b>	.33 (.39)	.20 (.61)	.65 (.06)	<b>.82 (.01)</b>
Satisfaction with own expectations (n=9)	.59 (.09)	.51 (.16)	-.14 (.71)	-.38 (.31)	.00 (1.0)	.39 (.29)
Satisfaction with patient contact (n=10)	.54 (.11)	.17 (.65)	.38 (.28)	-.04 (.91)	-.09 (.80)	.26 (.47)
Satisfaction with the expectation of others (n=10)	-.35 (.33)	-.23 (.53)	-.22 (.54)	<b>-.63 (.05)</b>	<b>-.70 (.02)</b>	<b>-.48 (.16)</b>
Satisfaction with the environment (n=10)	.17 (.65)	.26 (.46)	.18 (.63)	.38 (.28)	.31 (.39)	.34 (.34)
<b>Attitudes Towards Residents with Dementia total (n=10)</b>	<b>.69 (.03)</b>	.31 (.39)	.44 (.21)	.15 (.69)	.16 (.65)	.47 (.17)