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Improving Dementia Care in Assisted Living Residences: Addressing Staff Reactions to Training

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Abstract

This article presents issues that affected the implementation and response to STAR (Staff Training in Assisted-living Residences), an on-site training program specifically designed to improve care of persons with dementia in assisted living residences. We discuss how unlicensed assistive personnel responded to this program and how we addressed staff concerns and the challenges that arose during training.

Introduction

More than 1 million older adults, many with significant cognitive impairment, receive care in assisted living residences (ALR), and their numbers are increasing. Despite this, ALR staff are often inadequately trained to manage the complex emotional, behavioral, and functional impairments characteristic of these residents. Nurses are in a unique position to improve this situation by training and supervising ALR staff. To facilitate such training, an understanding of staff reactions to receiving training as well as a systematic yet flexible method for training is needed. This article provides information on one such program (STAR—Staff Training in Assisted-living Residences), discusses challenges that arose when offering this program across

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3 states in 6 diverse ALRs (rural, urban, for-profit, and not-for-profit sites), and describes how these challenges were addressed. We illustrate how nurses can successfully train ALR staff to improve resident and staff outcomes and offer guidance for those interested in providing such training. (*Geriatr Nurs* 2008;29:XXXX)

More than 1 million older adults currently live in assisted living residences (ALRs), and more are entering each year.¹ The average ALR resident is 85 years of age and requires assistance with 1 of more activities of daily living;² more than one third are incontinent, half require assistance with bathing, and 75% require assistance with medications.^{3,4} More than half are demented;^{3,4} and even more have cognitive impairment significant enough to require daily memory aides.⁵ Depression symptoms, anxiety, and agitation are common, with behavioral problems evident in two thirds of residents with cognitive impairment.^{4,6} Cognitive, behavioral, emotional, and functional impairments are likely to increase over time as more and more older adults reside in ALRs and as the adults now residing there continue to age.

Unlicensed assistive personnel (UAP) have the primary responsibility to assist ALR residents with daily care. However, they receive little, if any, training to manage the cognitive and behavioral problems that complicate such care.⁷ Indeed, their inability to deal effectively with the behavioral problems that present themselves during these tasks often leads to increased distress for residents, staff, and family,^{8–10} as well as increased potential for physical harm between residents and staff.¹¹

To increase the skill of UAPs working in ALRs with residents who have dementia, we developed STAR (Staff Training in Assisted-living Residences), a multimodal, on-site, dementia-specific training program designed to accommodate real-life clinical care issues that arise in ALRs and accommodate the diversity of ALR contextual needs (such as staffing and resident mix, philosophy of care, etc.).¹²

In the course of providing STAR training to a variety of ALR sites, including those located in rural and urban settings, those for-profit and not-for-profit, those part of a larger chain and independently owned, and those with or without high staffing ratios and skills, it became clear that certain challenges and staff responses to training were somewhat predictable. The purpose of this article is to discuss these common challenges, responses to them, and how we addressed them.

Recently, numerous leaders in nursing have indicated the need for effective staff training in ALRs and discussed the important role nurses can play in this area.^{13–15} As this need for training becomes more widely recognized, more programs will be developed to provide staff training in ALRs. A number of states are already beginning to require such training. It is our hope that by sharing our experiences, we can help nurses and others who will be providing training to improve care for this underserved population of older adults.

Methods

Overall Plan and Design

After success in conducting STAR in one geographic area (Seattle, Washington),¹² we sought to investigate whether this training would be feasible and relevant to other areas of the country. Specifically, we were interested in investigating STAR in an urban multicultural site (Chicago, Illinois/C. Farran, site principal investigator [PI]) and a rural, predominantly African American/minority site (Little Rock, Arkansas/C. Beck, site PI) as well as replicating the success at various sites in the greater Seattle area (Seattle, Washington/L. Teri, site PI). We were also interested in determining whether relatively novice trainers could be taught to train

staff consistently and effectively and whether outcomes obtained by these trainers at these diverse ALR sites would be comparable to the positive outcomes obtained in earlier trials.

Procedures

Consent—This study was approved by Institutional Review Boards (IRBs) of the three research Universities involved (University of Arkansas, Rush University, University of Washington) and, when available, the ALRs in which this study took place. (Some ALRs do not have such a governing body in place.) All staff and residents who participated in training agreed to participate and signed informed consent. To ensure IRB protection for subjects with cognitive impairment, both assent (from the resident with cognitive impairment) and consent (from their legal guardian) were obtained.

Training the trainers—Before working in the ALR, a 2-day orientation and training session was held with each of the STAR trainers to familiarize them with the procedures for conducting training, including all presentation materials, training DVD, and staff handouts. Discussion centered around issues identified during earlier trainings as well as addressing concerns the new trainers had about conducting STAR in their particular site. We brainstormed how to address these issues and shared information from prior training sessions that was relevant to the discussion.

Following this intensive meeting, trainers were encouraged to review all the materials distributed, and follow-up phone calls were scheduled between these new trainers and the original STAR trainers to answer any questions that arose. This included ways to observe interactions between staff and residents, strategies for keeping staff engaged, and how best to monitor progress within each site. These phone calls varied in frequency, beginning every week and then tapering off as the need diminished. Phone calls included all trainers so that the opportunity to learn from each other was maximized.

Training UAPs in the ALR—STAR was specifically designed to teach ALR staff how to identify the factors within the environment and within their own interactions with residents that could be altered to enhance care, thereby improving resident outcomes, reducing dementia-related problems, increasing staff skill, and improving their job satisfaction. Training was conducted on-site at each ALR. UAPs participated in 1) two 4-hour group workshops that provided training using multiple methods to stimulate learning, including didactic content, case studies, discussion, and group exercises; and 2) four 1-hour individualized sessions that allowed on-the-job practice of training skills. Training topics included 1) realistic expectations for residents with dementia; 2) effective communications; 3) identifying and using the ABCs (activators, behaviors, and consequences) to improve resident care; 4) problem-solving dementia-related problems; 5) identifying, establishing, and increasing pleasant events; 6) understanding and altering the environment's effect on residents; and 7) identifying issues related to teamwork and resident family issues. Training content was systematic and standardized, yet flexible to the specific needs of staff, residents, and the particular ALR. Sessions included lecture and discussion, role-playing, observation of video case vignettes, overheads, and handouts. The group format allowed staff to share experiences and learn from each other as well as from STAR trainers. Individualized sessions between trainer and trainee reinforced material covered in the workshops, allowed more attention to specific staff-resident issues and facilitated on-the-job practice of training strategies.

Throughout training, we capitalized on our skill as educators to ensure that all participants were able to participate to the greatest extent possible. We offered individual sessions for those who seemed too reticent to speak up in class. We demonstrated respect and seriousness of intent while also interjecting humor when appropriate and encouraging playfulness during training.

Training the leadership—Licensed staff (when available) participated in 3 on-site sessions (30–45 min in duration) that provided them with basic information on STAR and the tools to facilitate their supervision and ongoing implementation of the program. Also conducted in group format, the focus of these meetings was to allow licensed and administrative staff to learn about STAR and to learn how to support and supervise the UAPs as they implemented their new skills. In this way, we hoped to facilitate the sustainability of STAR.

Supervisors of the staff had varying levels of knowledge regarding behavioral interventions, as well as varying levels of comfort with their supervisory role as STAR training progressed. For example, during the leadership in-services, some supervisors reported that they had received no information on effective interventions to use with cognitively impaired residents. Furthermore, they had received no formal instruction on how to motivate or support the people they were assigned to supervise. Thus, part of STAR was to provide support—however cursory—for their supervisory role as well as for the ongoing application and growth of the STAR program.

For more detail on STAR, readers are referred to Teri et al., 2005.¹² A copy of the training manual and all supporting staff materials are available from the senior author.

Data Collection and Analysis

During training and upon completion of the program, interventionists documented the reactions of staff to various training procedures. This was accomplished with standardized forms that included both broadly phrased, open-ended questions (such as, “How did the staff member apply the ABC/GET ACTIVE concepts?”), as well as more specific checklist-type questions (such as, “Was a problem behavior identified?”) with qualitative follow-ups (“What was it?”). These forms were completed at the end of each workshop and each individualized session. Each interventionist also participated in regularly scheduled telephone conference calls during which time staff responses to training methods, strategies, and implementation goals were discussed. These narratives were then compiled and organized by topical areas; interview and field note data were transcribed and discussed among the supervisory trainers and summarized to form the basis of the findings summarized in what follows.

Results

Trainer Data

Three trainers, one from each state, conducted STAR in the 8 ALRs. Each had specialized training in dementia care, but the level of this training varied from a master’s level degree in social work to a Ph.D. in nursing. There were 2 women and 1 man; age ranged from 38 to 52, with 2 to 8 years experience in long-term care.

ALR Data

ALRs enrolled in this phase were as diverse as the larger population of ALRs across the country; for profit, not-for-profit, chains, and independently owned residences were included; all provided housekeeping, meals, and assistance with bathing, dressing, and medications; all provided some licensed nursing care (Table 1). Each facility had its own method of communication (both verbal and written) relating to care of residents. This created a challenge in conveying resident-specific behavioral plans necessary for the consistent use of STAR. Facilities also varied in how (or if) they recognized and motivated their staff to participate in the STAR training and application. For example, we developed cards to help staff track behavioral plans (called the ABC cards); 1 facility incorporated these cards into their ongoing staff meetings to discuss resident issues, whereas another made no effort to incorporate them.

Staff Data

Forty-four UAPs participated (Table 2). As was expected, they were predominantly female (93%) and ethnically diverse: 41% of staff we trained were from countries outside the United States, and 34% spoke a language other than English at home. Thus, there was tremendous variability in their ability to read, speak, and understand English.

UAPs were also diverse in the level of formal training they had received and in their level of caregiving skills. For example, we had staff with little formal education or training as well as those with extensive health care experience from other countries. Forty-three percent reported attending no training in the year before STAR. Consequently, although we endeavored to keep our language simple, we also wanted to demonstrate our respect for the skills these individuals already possessed and encourage them to participate fully in discussions by reporting ways they successfully handled problems. Individualized training sessions further enabled us to tailor training to the individual's relative strengths and weakness in language, knowledge, and care skills. One hundred per of enrolled staff attended at least 1 workshop, and 92% attended both; 100% attended 2 or more individual sessions and reported finding the training materials helpful.

Leadership Data

The leadership of the ALRs—administrators, supervisors, and licensed staff—were predominantly female (89%), American-born (83%), and Caucasian (72%). The amount of time they had worked in the ALR varied across the 3 sites, although all had relatively stable staff (of more than 1 year's duration), with Seattle having the most stable ($M = 64$, $SD = 72$ months) and Chicago the least ($M = 17$, $SD = 12$).

Resident Data

Residents enrolled in this protocol also were characteristic of ALR residents reported in national studies; they averaged 84 years of age (range: 69–94) and were predominantly female (82%) and Caucasian (77%).

Staff Response to Training

Staff responses to training were, in some ways, as diverse as staff themselves. Some staff members were quite open to new ideas, whereas others were not; some participated actively in discussions, and others only contributed when prodded to do so. There were also interesting commonalities that seemed to occur across each site. These included 1) reactions to time pressures of the job, 2) hesitation to try new strategies, 3) conflicts with prior training and experiences, 4) preconceived and unhelpful notions about the “cause” of resident behaviors, and 5) lack of awareness of the impact of their own behaviors. These are now addressed.

Reaction to time pressures of the job—“I don't have the time”—UAPs have demanding jobs. They are responsible for almost all of the daily care provided to residents and often are juggling multiple demands with minimal support. Any attempt to introduce “something more to do” was, quite naturally, met with reluctance and questioned. We introduced STAR by being explicit that our goal was to improve care of residents without making staff jobs more difficult. We emphasized that although we intended to provide staff with new ideas and skills with which to conduct their jobs, we were aware of their heavy workload and did not want to increase it. Quite the contrary, our goal was to lighten their load and help them provide better care at the same time.

Throughout training, we emphasized that a less depressed and less anxious resident is easier to care for. We discussed, through case examples and video demonstrations, how preventing resident problem behaviors is easier (and takes less time) than having to deal with problems

after they occur and intensify. We enlisted the help of the UAPs being trained to help identify how our ideas might help them improve care and asked them to collaborate with us in ensuring that our suggestions were reasonable and time-efficient.

Hesitation to try new strategies—“It’s not my job”—UAP jobs are relatively circumscribed. They are given instructions about what they should and should not do. Consequently, any attempt to introduce new tasks is met with hesitation and concern about going beyond the scope of their current job requirements (“It’s not my job.”). We addressed this concern directly so that staff members understood that the skills we were training were part of their job. We engaged supervisors and administrators to help underscore the importance of the new skills we were teaching. Administrators were asked to introduce training to staff at the first workshop and to convey the facility’s commitment to STAR. They communicated to the UAPs that the skills we were teaching were “a core element” of their daily responsibilities, not extraneous to these responsibilities. To help reinforce this, we provided administrators and supervisors with outlines and summaries of training content. They were therefore able to model, reiterate, encourage, and reward staff throughout the training period.

One example of how we redefined job responsibility may help clarify this issue. In STAR, one of the cornerstones of our approach is the importance of identifying and increasing the number of pleasant events in which residents engage. Staff clearly saw this as outside their job responsibility. Because most of the ALRs employed an activity coordinator to provide residents with various structured activities, such as scheduled bingo, van rides, and beauty parlor services, trainees saw pleasant events as the job of the activity coordinator and beyond their purview. This was a particularly important attitude for us to change. Therefore, we spent time in the workshops and during the individual sessions reinforcing the notion that “pleasant events are everyone’s job.” Indeed, we went so far as to add this motto to our handouts and spent considerable time discussing it. We encouraged staff to understand that by increasing small pleasantries, everyone’s day (including their own) would benefit. By eliciting specific ideas from trainees regarding ways in which they already try to brighten a resident’s day, they realized they were in more frequent contact with residents than the activity coordinator, and therefore in the best position to increase pleasant events.

Conflicts with prior training and experiences—“Lying is bad”—UAPs had their own value systems that influenced the way in which they provided care. Some had participated in various training sessions before STAR and had opinions that we contradicted in our presentations. We were consistently sensitive to respecting their opinions and prior training experiences. When our ideas contradicted theirs, we asked them to use the resident’s reaction as an indicator of effectiveness. We encouraged them to question whether continuing their method yielded a good outcome and, if not, whether a new method was worth considering. By encouraging UAPs to use the residents’ reactions as their litmus test, we did not challenge their values but rather encouraged them to use those values to help them decide what to do.

For example, most UAPs believed it was important to be truthful with the residents. Although we agreed in principle, sometimes the facts necessitated a change in what truths were shared. The most vivid example of this was 1 UAP who routinely reminded a resident that her mother was dead whenever asked when the mother was going to visit. Needless to say, the resident became distraught at this news, and the UAP felt terrible about evoking this pain. The UAP, however, felt she had no choice but to tell the resident this bad news. Not only was it consistent with her values about always being honest, but it was consistent with her understanding of reality orientation. She thought she was doing the right thing—being truthful and “orienting” the resident to the reality of her mother’s death.

We discussed with the UAP some options she might have in responding to the resident—not lying, but rather being selective in what she said. We encouraged her to see reality orientation as one strategy that could work in some cases but, in this case, did more harm than good. Together, we generated ideas for new responses to the resident’s query, including suggesting that the next time the resident asked about her mother, she be encouraged to talk about things they enjoyed doing together rather than be reminded of her death. After trying this approach, the UAP reported success: the resident cheerfully reminisced about happier times, and the UAP was pleased with their interaction.

Preconceived or unhelpful attitudes about the “cause” of resident behaviors

—**“He’s just being difficult”**—Although many interactions between residents and staff can create conflicts, 2 areas appeared to be sources of significant conflict: medication management and involvement in social activity. Residents often became upset and angry when they perceived staff as “pushing” them to do something they did not want to do; staff became frustrated and annoyed when their attempts “to do their job” were met with “resistance.” Explaining dementia as a disease process opened the door to helping staff understand that residents are not “just being difficult,” a frequent comment when residents resisted staff overtures.

Although it is important in all care delivery systems for staff to learn how to communicate with residents, it seems particularly complicated in ALRs in which the service-delivery model promotes resident privacy, autonomy, and independence, despite potentially compromised resident judgment due to dementia. By directly addressing the frustration staff members experienced and providing specific communication skills for them to employ, they became better able to approach and interact with residents in a positive manner. Residents, in turn, were able to accept or refuse care in a more congenial atmosphere of mutual respect. Thus, the entire interaction became less conflicted and more pleasant for both residents and staff members, and, more often than not, residents received the care they needed.

Staff also had to learn how to approach residents to encourage social activities. Often times, residents would not engage in social activities because they did not remember when they were scheduled, were fearful of leaving their room, or were too depressed to initiate the actions that were required for participation. By helping staff identify what the barriers were to the resident’s increased social engagement and what types of social activities the resident was most likely to enjoy, we were able to help staff members develop plans to encourage resident participation. Again, staff and resident interactions became more pleasant and both benefited.

Lack of awareness of the impact of their own behaviors—“I didn’t do anything”

—Often, UAPs did not make the connection between what they did and what the residents did. It was critical to help staff members understand the reciprocity of their interaction while being careful not to assign blame. This lack of awareness was a double-edged sword. Staff members saw neither how their behavior contributed to problems nor how their behavior contributed to improved outcomes. The latter was often the focus of our discussion because in seeing their impact on successful outcomes, they often made the connection to the negative outcomes without requiring our intercession. For example, time and time again, after initiating an ABC plan, we would learn that the resident improved (i.e., the problem targeted for treatment had resolved), but when we queried the UAP on how they had contributed to this improvement, their initial response was, “I don’t know. Nothing, I guess.” Frequently, they would attribute the improvement to chance, stating, that the resident “is having a good day.” It was only after carefully guiding them through their actions and having them explain to us what they did (i.e., how they followed the plan) that they began to see their role in improving behaviors.

It is an empirical and conceptual question as to whether UAPs need to understand their role in behavior change (whether that change is positive or negative). We think they do. By understanding their role, they can play a more active part in helping other residents and other UAPs to improve care. By not understanding their role, the process may seem mysterious and arbitrary. Therefore, we believe that it is important for trainers to underscore the role the trainee had in creating effective change and to decrease their sense of wonder. In STAR, understanding the ABCs of behavior change helped staff members understand that they could change resident behaviors and that often, they were the source of such change.

Discussion

This article presents issues that affected the implementation and response to STAR (Staff Training in Assisted-living Residences), an on-site training program specifically designed to improve care of persons with dementia in assisted living residences. We discuss how UAPs responded to this program and how we addressed staff concerns and the challenges that arose during training.

As more diverse sites and trainers became involved, we were struck by the almost universality of issues that arose at each site—issues that had to be resolved to maximize training effectiveness. These issues are unlikely to be unique to STAR because they seem to reflect larger training-related challenges that any program in ALR will face. Consequently, although we addressed these issues within the STAR training program, we provide this information in an attempt to inform other trainers entering this area.

STAR did not occur in a vacuum. It took place in actual ALRs that were confronted with all the day-to-day issues characteristic of ALRs. Emergencies and incidents happened; turnover occurred at every level; renovations and remodels changed the very environment in which we worked. These issues created opportunities for trainers to demonstrate flexibility and support. Training had to be a priority, but it also had to be a realistic aspect of the ongoing life of the UAPs, their supervisors, the residents, and the ALR.

There are a number of lessons learned from this experience and recommendations that can be made to facilitate others interested in providing staff training in ALRs. The key staff issues we encountered were 1) time pressure, 2) hesitation to try new strategies, 3) conflicts with prior training and experiences, 4) preconceived or unhelpful attitudes about the “cause” of resident behaviors, and 5) a lack of awareness of the impact staff behavior may have on residents. By becoming aware of these potential obstacles to staff implementing our program, we were able to address these concerns successfully and help staff view the program as worth the initial additional effort and as something that ultimately would save time and improve the quality of care provided.

Key components of STAR training—realistic expectations, effective communication, pleasant events, and using the ABCs for problem solving—were provided in a pragmatic, practical, hands-on approach. Learning was neither abstract nor academic. It was always tied directly to what staff members experienced as they provided care. For example, realistic expectations enabled staff to apply what they had learned about the disease process to confront unhelpful attitudes and past experience with residents’ dementia-related behaviors. Communication skills coupled with ABCs of behavior change enabled staff to provide care more effectively, decrease resident-staff and resident-resident conflicts, and improve resident affect and perceptions of care. Pleasant events provided staff members with options and ideas for how to improve the overall experience of residents and also made staff-resident interactions more pleasant.

Many of the methods we employed evolved as we endeavored to be responsive to reactions from staff. It is clear that providing effective training on care of residents with dementia in

ALRs is not easy, but there is also no question that it is essential. As more and more persons with dementia reside in ALRs, it becomes increasingly more critical that we provide their caregivers with the skills to insure resident safety, comfort, and quality of life. It is our hope that this article will help others working in ALRs to improve the care of persons with dementia.

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STAR descriptive data.

Table 1

Variable	All Sites		Little Rock, Arkansas		Chicago, Illinois		Seattle, Washington	
	N	%	N	%	N	%	N	%
UAPs								
Total	44		12		14		18	
Gender								
Female	41	93	10	83	13	93	18	100
Male	3	7	2	17	1	7		
Age (<i>M, SD</i>)	37	13	35	13	30	10	44	11
Birthplace								
USA	26	59	12	100	12	86	2	11
Philippines	8	18					8	44
Mexico	5	11			1	7	4	22
Africa	4	9			1	7	3	17
Russia	1	2					1	6
Ethnicity								
Caucasian	13	30	9	75	1	7	3	17
African-American, Black	9	20	1	8	8	57		
Hispanic, Latino	8	18			4	29	4	22
Asian	7	16					7	39
African, Black	4	9	1	8			3	17
Native Hawaiian, Pacific Islander	1	2			1	7		
More than one race	2	5	1	8			1	6
Language spoken at home								
English	28	64	11	92	12	86	5	28
Spanish	6	14			2	14	4	22
Filipino	6	14					6	33
African	3	7					3	17
Refused or unknown ^d	1	2	1	8				
Education								
Less than high school	4	9			1	7	3	17

Variable	All Sites		Little Rock, Arkansas		Chicago, Illinois		Seattle, Washington	
	N	%	N	%	N	%	N	%
High school	19	43	7	58	5	36	7	39
Post high school	21	48	5	42	8	57	8	44
Marital status								
Married	21	48	6	50	3	21	12	67
Divorced or separated	8	18	3	25	2	14	3	17
Never married	13	30	3	25	8	58	2	11
Widowed	2	5			1	7	1	6
Months employed at current facility (M, SD)	41	54	15	17	13	12	81	65
Usual shift								
Day	26	59	7	58	8	57	11	61
Evening	14	33	3	25	5	36	6	33
Mixed	4	9	2	17	1	7	1	6
Leadership								
Total	36		9		11		16	
Gender								
Female	32	89	8	89	9	82	15	94
Male	4	11	1	11	2	18	1	6
Age (M, SD)	42	11	38	9	36	9	47	12
Birthplace								
USA	30	83	7	78	11	100	12	75
Philippines	2	6					2	13
India	1	3					1	6
Romania	1	3					1	6
Thailand	1	3	1	11				
Ukraine	1	3	1	11				
Ethnicity								
Caucasian	26	72	9	100	4	36	13	81
African-American, Black	6	17			6	55		

Variable	All Sites		Little Rock, Arkansas		Chicago, Illinois		Seattle, Washington	
	N	%	N	%	N	%	N	%
Asian	3	8					3	19
Hispanic, Latino	1	3			1	9		
Language spoken at home								
English	31	86	8	89	11	100	12	75
Filipino	1	3					1	6
Malaylan	1	3					1	6
Romanian	1	3					1	6
Tagalog	1	3					1	
Ukrainian	1	3	1	11				
Education								
High school	2	6	1	11			1	6
Some college	11	31	3	33	6	55	2	12
AA degree	3	8					3	19
BA degree	13	36	3	33	3	27	7	44
Some graduate school	3	8	1	11	1	9	1	6
Graduate degree	3	8			1	9	2	12
Refused or unknown ^a	1	3	1	11				
Marital status								
Married	21	58	8	89	3	27	10	63
Divorced or separated	7	19	1	11	2	18	4	25
Never married	7	19			5	45	2	12
Refused or unknown ^a	1	3			1	9		
Months employed at current facility (<i>M, SD</i>)	42	56	33	44	17	12	64	72

Residents

Total	44		12		14		18	
Gender								
Male	8	18	2	17	2	14	4	22
Female	36	82	10	83	12	86	14	78

Variable	All Sites		Little Rock, Arkansas		Chicago, Illinois		Seattle, Washington	
	N	%	N	%	N	%	N	%
Age (<i>M, SD</i>)	84	7	86	7	80	8	87	6
Marital status								
Married	8	18	1	8	1	7	6	33
Widowed	28	64	11	92	6	43	11	61
Divorced	5	11			4	29	1	6
Never married or unmarried	3	7			3	21		
Native language								
English	43	98	12	100	13	93	18	100
Other	1	2			1	7		
Ethnicity								
Caucasian	34	77	12	100	4	29	18	100
African-American, Black	9	20			9	64		
Refused or unknown ^a	1	2			1	7		
Dementia status								
Dementia, unknown type	28	64	5	42	12	86	11	61
Alzheimer's disease	14	32	7	58	2	14	5	28
Vascular dementia	1	2					1	6
Other dementia	1	2					1	6
Months at the facility (<i>M, SD</i>)	20	15	21	13	14	12	24	17
Clinical Measures								
Mini-Mental State Exam	16.36	4.61	17.67	6.84	15.14	2.96	16.67	4.38
Neuropsychiatric Inventory	8.68	11.51	4.08	4.74	8.36	10.04	12.00	14.73
Revised Memory & Behavior Problems Checklist (Frequency)								
Total	2.30	1.26	2.68	.78	1.84	1.27	2.30	1.48
Memory	1.48	.88	1.75	.77	1.05	.67	1.53	.99

Variable	All Sites		Little Rock, Arkansas		Chicago, Illinois		Seattle, Washington	
	N	%	N	%	N	%	N	%
Depression	.50	.41	.50	.28	.54	.38	.48	.50
Disruption	.35	.38	.41	.28	.40	.45	.27	.37
Clinical Anxiety Scale	19.30	11.17	23.11	9.81	18.01	8.21	18.35	13.81
Geriatric Depression Scale	3.30	2.34	5.50	2.11	2.29	1.77	2.96	2.20

Note. Percentages may not total 100% due to rounding.
^aSome staff and residents refused to provide demographic data.

Table 2

STAR facility descriptive data.

Variable	<i>N</i>	%	<i>M (SD)</i>	Range
Total	8			
Type of ownership				
For-profit, independent	4	50		
For-profit, part of a chain	2	25		
Not-for-profit, independent	2	25		
Neighborhood location				
Urban	2	25		
Suburban	5	63		
Rural	1	12		
Number of units			74 (29)	38–115
Number of residents			69 (26)	31–115
Medicaid licensed living units				
Yes	5	62		
No	3	38		
Percent of residents requiring significant help with ADLs			33 (41)	0–100
Percent of residents cognitively impaired			36 (32)	3–80
Total number of staff (full and part time)			26 (7)	19–39
Administrative Director or Assistant Director			1 (1)	1–2
Registered Nurses			1 (1)	0–3
Licensed Practical Nurses			3 (2)	1–5
Universal Assistive Personnel			20 (6)	13–32
Activities Workers			1 (1)	1–2
Percent of staff working part time			24 (15)	0–45

Note: Percentages may not total 100% due to rounding