Changing the Philosophy of Care in Long-Term Care: Testing of the Restorative Care Intervention

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Purpose: The purpose of this study was to test the effectiveness of a 12-month restorative care (Res-Care) intervention on the beliefs related to Res-Care, knowledge of Res-Care, observed performance of Res-Care with residents, and job satisfaction among nursing assistants (NAs) in nursing home (NH) settings. Design and Methods: This was a randomized controlled trial including 12 sites and used a repeated measure design with follow-up testing done at 4 and 12 months. An intention-to-treat principle was followed in all analyses, and generalized estimating equations were used to perform repeated measures. A total of 556 NAs consented to participate and completed baseline assessments (265 in treatment and 258 in control sites), 427 completed 4-month follow-up (218 in treatment and 195 in control sites), and 357 completed 12-month follow-up (168 in treatment and 158 in control sites). Results: There was a statistically significant increase in the treatment group participants’ outcome expectations related to Res-Care activities ($p = .04$) and performance of Res-Care ($p < .001$) at 4 months, and an increase in knowledge of Res-Care ($p < .001$) and job satisfaction ($p < .001$) at 12 months. There was no difference between the groups with regard to self-efficacy expectations. Implication: This study provides an important step in understanding the implementation of a Res-Care philosophy in NH settings and the benefit this can have for NAs.

Key Words: Restorative care, Long-term care, Nursing assistants

The focus of care in nursing homes (NHs) is on providing nursing care to individuals who generally require assistance with at least one activity of daily living (Blair, Glaister, Brown, & Phillips, 2007; Vahakangas, Noro, & Bjorkgren, 2006). Unfortunately, providing care associated with bathing or dressing for as opposed to with older adults (meaning helping individuals to complete as much of their own care as possible) may actually facilitate functional decline and cause further deconditioning and disability (Davies, Ellis, & Laker, 2000; Engelman, Altus, & Hosier, 2003). Other factors influencing functional changes and decreased physical activity in NH residents include underlying physical and cognitive function, health status, motivation, cultural expectations, environmental factors, coexisting disease states, and fear of falling (Cameron, Kurle, Cumming, & Quine, 2000; Crews, 2005). To change the philosophy of how care is provided in NHs and slow the commonly noted functional decline among residents, a restorative philosophy of care, as mandated by the Omnibus Budget Reconciliation Act (OBRA) of 1987, is recommended.

Specifically, the OBRA guidelines state that “each resident must receive and the facility must provide the necessary care and services to attain or maintain the residents’ highest practicable physical, mental, and psychosocial well-being” (OBRA,
Consistent with this perspective, restorative care (Res-Care) is a philosophy that helps residents compensate for functional impairments so that they do not progress to disability (Nagi, 1976, 1991). Maintaining optimal function and physical activity for residents in NHs may extend to positively affecting physical and psychosocial health and overall quality of life.

Prior Research in Res-Care

Despite OBRA guidelines, little research has been done to establish effective interventions to change behavior among NH staff related to Res-Care, particularly nursing assistants (NAs), who provide the majority of the direct care. Of the work that has been conducted, prior single-site and other quasi-experimental studies have demonstrated that after exposure to education about Res-Care, NAs were more likely to document that they were providing Res-Care (Galik & Resnick, 2007; Remsburg, Armacost, Radu, & Bennet, 1999). In addition, following exposure to implementation of Res-Care programs, NAs reported that their approach to residents was different, and they were more likely to try to engage them in an activity rather than perform the activity for the residents (e.g., washing the face), they were able to save time by decreasing unnecessary care to residents, and they were proud of their ability to help residents recover or regain and maintain function (Johnson, et al., 2004; Remsburg et al., 1999; Resnick et al., 2006; Resnick, Pretzer-Aboff et al., 2008). Further, the NAs reported that Res-Care needed to be a multidisciplinary team approach incorporating nursing, physical, occupational, recreational, and speech therapy, as well as administration, to create an environment that values engaging residents in personal care and functional activities (Resnick et al., 2006; Resnick, Pretzer-Aboff et al., 2008).

A retrospective analysis of Res-Care in NHs in Finland provides additional insight into the involvement of NAs and other nursing staff in Res-Care (Vahakangas et al., 2006). Results from that study showed that only a small percentage of residents (16%) were recognized by the staff to have Res-Care, or rehabilitation potential, although 64% of the residents did receive some Res-Care nursing. Residents were more likely to receive Res-Care if they were believed to have some potential for improvement in function, were cognitively intact, participated in activities of daily living, had urinary incontinence, and had a history of falls, depression, and more social engagement. Conversely, NAs reported they were less likely to provide Res-Care when they witnessed an acute decline in function or cognition, as commonly occurs after a medical event such as pneumonia or stroke (Galik & Resnick, 2007; Resnick et al., 2006; Resnick, Pretzer-Aboff et al., 2008).

We have not succeeded in providing Res-Care for all NH residents, and in fact, there is evidence that those who need care interactions to optimize function are the least likely to receive them (Blair et al., 2007). Thus, building on prior work and a clear need, we established a two-tiered self-efficacy-based intervention, the Res-Care program. The first tier in the Res-Care program is focused on teaching the NAs the philosophy and skills associated with Res-Care, and the second tier is focused on motivating the NAs and residents to engage in Res-Care activities in real-world clinical settings. The purpose of the related evaluation as reported in this article was to determine the impact of Res-Care on the NAs’ knowledge of Res-Care, confidence in their ability to provide Res-Care to all residents in the NH, beliefs in the benefits of Res-Care for themselves as well as the residents, performance of Res-Care, and job satisfaction over the course of a 12-month period.

Theoretical Basis for the Res-Care Intervention

The theory of self-efficacy (Bandura, 1997) was used to develop the Res-Care intervention. This theory predicts and explains behavior using two key concepts: self-efficacy and outcome expectations. Self-efficacy expectations are individuals’ judgment of their confidence to carry out specific behaviors. Outcome expectations are the beliefs that carrying out a specific behavior will lead to a desired outcome. The stronger the individuals’ perceived self-efficacy and outcome expectations, the more vigorous and persistent their efforts. Change in self-efficacy and outcome expectations through mastery experiences, verbal persuasion, vicarious experiences, and addressing physiological feedback (e.g., uncomfortable sensations such as anxiety or pain) can improve adherence to the desired behavior (Bandura, 1997). The Res-Care intervention used these approaches (Table 1) toward the goal of increasing NAs’ knowledge of Res-Care, self-efficacy, and outcome expectations, and thereby increasing performance of Res-Care activities with residents and improving job satisfaction.
Res-Care Intervention

The Res-Care intervention is a two-tiered self-efficacy-based motivational intervention that focuses in Tier 1 on teaching the NAs the underlying philosophy of and skills associated with Res-Care, and in Tier 2 motivates the NAs and helps them motivate and engage residents in functional and physical activities. We identified one other Res-Care intervention that was theoretically based and used Orem’s Systems of Nursing Care and Applied Behavioral Analysis (Blair et al., 2007); however, no other Res-Care interventions used a two-tiered self-efficacy approach that focused on behavior change. The details of the Res-Care intervention have been published elsewhere (Resnick, 2004; Resnick et al., 2006; Resnick, Pretzer-Aboff et al., 2008). Briefly, the first tier of the intervention included a 6-week educational series for NAs and nurses or other facility staff interested in attending. The sessions were developed and implemented by advanced practice nurses (members of the research team) and were held for 30 min weekly (Table 2). The second tier of the Res-Care intervention focused on ongoing motivational interventions and included the direction and oversight of a “champion” Res-Care nurse coordinator (RCN), a research team member who worked with the facility staff 20 hr a week over the 12-month study period. The RCN participated in the training and ongoing supervision and encouragement/motivation of the NAs related to Res-Care activities, helped the NAs to develop short- and long-term goals for the residents, and served as an interface between the NAs and the nurses, resident families, and administrative staff as needed. The RCN also provided informal one-on-one and small-group education with respect to ways to integrate Res-Care activities into routine care, verbal encouragement, and reinforcement for engaging residents in Res-Care activities; highlighted successful restorative activities; recognized NAs’ knowledge and expertise with awards (e.g., gift baskets); and intervened as appropriate with nursing administration and others to support the NAs’ work.

Methods

Design

This study was a randomized controlled trial using a repeated measure design with treatment sites randomized to either treatment (Res-Care) or placebo control (education only). Outcomes were evaluated at baseline and at 4 and 12 months after the initiation of the Res-Care intervention. One of our six trained RCNs was assigned to a treatment facility and remained within the facility for the full 12-month period. Training was done as per our training manual (available from first author), and
the RCN team and investigative leaders of the intervention core of the study met monthly to review RCN activities and implementation to ensure treatment fidelity. The specific motivational techniques used were similar across all sites.

The control sites were provided with a placebo intervention that included only a single 30-min training session for all NAs related to managing behavioral symptoms of residents. This session, which was taught by an advanced practice nurse who did not participate in the Res-Care intervention, was offered twice within a single day at times that were designated as convenient by nursing administration. No other Res-Care information was provided to the control sites during the course of the study.

Sample

Nursing assistants were recruited from 12 NHs in the greater Baltimore area (Figure 1). The facilities all housed at least 100 residents; 2 were independent facilities, with the remaining 10 from three different facility chains; and 8 were for profit. Facilities were matched based on ownership as appropriate and randomly assigned to intervention or placebo control. Nursing assistants were eligible to participate if they had worked in the facility for at least 6 months, worked day or evening shifts, and could read and write English. Across all sites, a total of 1,006 NAs were approached (not all of whom were eligible), 30% of whom refused to participate. Among those approached and eligible, 556 NAs consented to participate, 283 from treatment sites and 273 from control sites. A description of recruitment and reasons for loss to follow-up are shown in Figure 1. The project was approved by the Institutional Review Board of the University of Maryland School of Medicine.

Measures

NA Self-Efficacy for Restorative Care Activities.—The NA Self-Efficacy for Restorative Care Activities (NASERCA) Scale (Resnick & Simpson, 2003; Resnick, Galik, Pretzer-Aboff, Rogers, & Gruber-Baldini, 2008) is a 10-item measure that focuses on confidence performing specific Res-Care activities, including confidence in the ability to perform these activities in the face of common challenges (e.g., when staffing is low). Prior work with the NASERCA demonstrated internal consistency and test–retest reliability, as well as validity based on hypothesis testing and contrasted groups (Resnick & Simpson). In the current study, there was evidence of reliability with an alpha coefficient of .74 and validity based on a good fit of the items to the model (Resnick, Galik, et al., 2008).

NA Outcome Expectations for Restorative Care Activities.—The NA Outcome Expectations for Restorative Care Activities (NAOERCA) Scale (Resnick & Simpson, 2003; Resnick, Galik, et al., 2008) is a nine-item measure that focuses on the perceived benefits of Res-Care from the perspective of the NA and asks respondents to state the extent to which they agree or disagree with the item statements on a scale of 1 (strongly disagree) to 5 (strongly agree). This measure was a revision of the six-item NAOERCA previously tested. In the current study, there was evidence for internal consistency (alpha coefficients from .89 to .93) and validity based on confirmatory factor analysis (Resnick, Galik, et al., 2008).

Res-Care Behavior.—The Restorative Care Behavior Checklist (RCBC) is an observational measure that was completed by our study evaluators and focuses on whether the NA implemented...
a Res-Care philosophy while conducting 10 care activities (i.e., bed mobility, transfers, ambulation, bathing of upper and lower extremities, hygiene, eating, use of assistive devices, exercise, and communication). The evaluators coordinated with the NA, in both treatment and control sites, to observe him or her during periods of time in which care was being provided. The observation continued for 15 min and, based on clear definitions of Res-Care behaviors (Resnick, Rogers, Galik, & Gruber-Baldini, 2007), the observer indicated if Res-Care was performed, not performed, or not performed because it was not observed during the observation period. Scoring of the RCBC is done by calculating the total number of Res-Care activities that the NA performed/the total number of activities that were observed. There was support for the internal consistency of the RCBC with an alpha coefficient of .77 and interrater reliability with a kappa coefficient of .80–1.00 on each of the care activities. Using Rasch analysis, support for validity was provided based on a good fit of the items to the measurement model (Resnick et al., 2007).
NA Knowledge of Res-Care Theory.—The testing of theoretical knowledge of Res-Care was done using a 15-item paper-and-pencil multiple-choice exam, with each item scored as correct or incorrect (for a total score ranging from 0 to 15). There was evidence of validity of this measure during prior testing with increased theoretical knowledge of Res-Care among NAs who performed Res-Care activities versus those who did not (Resnick & Simpson, 2003).

Job Satisfaction.—Job satisfaction was tested using the Job Attitude Scale, a 17-item measure that addresses the NAs’ attitudes toward five important components believed to influence work satisfaction: pay factors, organizational factors, task requirements, job status, and autonomy (Helmer, Olson, & Heim, 1995). Response options are agree, neither agree nor disagree, and disagree. Validity of the Job Attitude Scale was demonstrated, as scores were significantly related to the Minnesota Satisfaction Scale (Helmer et al., 1995). In the current study, there was evidence of reliability with a Cronbach’s alpha of .84.

Data Analysis

Descriptive analyses were used to describe the sample, and differences between treatment and control groups were tested with t tests and chi-square tests. Generalized estimating equations (GEEs; Liang & Zeger, 1986) were used to perform repeated measures analyses, with the outcome measures described earlier as the dependent variables. The independent variables included in the models were treatment effect, time, and

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Control</th>
<th>Restorative care intervention</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender, n (%) male</td>
<td>17 (6.59)</td>
<td>20 (7.55)</td>
<td>.67</td>
</tr>
<tr>
<td>Race, n (%) White</td>
<td>9 (3.50)</td>
<td>20 (7.58)</td>
<td>.04</td>
</tr>
<tr>
<td>Age, M (SD)</td>
<td>37.70 (12.16)</td>
<td>38.56 (11.87)</td>
<td>.28</td>
</tr>
<tr>
<td>Experience, M (SD) years</td>
<td>11.49 (8.83)</td>
<td>11.67 (8.48)</td>
<td>.82</td>
</tr>
<tr>
<td>Education, M (SD) years</td>
<td>12.50 (1.42)</td>
<td>12.58 (1.47)</td>
<td>.49</td>
</tr>
</tbody>
</table>

Table 3. Description of the Sample by Treatment Group

Table 4. Nursing Assistant Outcomes by Treatment Site at 4 and 12 Months

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Control, M (SE)</th>
<th>Restorative care intervention, M (SE)</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcome expectations</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>36.67 (0.41)</td>
<td>37.15 (0.41)</td>
<td>.428</td>
</tr>
<tr>
<td>4 months</td>
<td>36.21 (0.50)</td>
<td>38.36 (0.46)</td>
<td>.040</td>
</tr>
<tr>
<td>12 months</td>
<td>37.15 (0.47)</td>
<td>38.21 (0.48)</td>
<td>.499</td>
</tr>
<tr>
<td>Self-efficacy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>80.07 (0.99)</td>
<td>80.91 (0.94)</td>
<td>.415</td>
</tr>
<tr>
<td>4 months</td>
<td>80.67 (1.13)</td>
<td>81.23 (1.01)</td>
<td>.876</td>
</tr>
<tr>
<td>12 months</td>
<td>81.37 (1.07)</td>
<td>81.37 (1.08)</td>
<td>.560</td>
</tr>
<tr>
<td>Job satisfaction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>37.61 (0.30)</td>
<td>36.94 (0.30)</td>
<td>.196</td>
</tr>
<tr>
<td>4 months</td>
<td>37.67 (0.30)</td>
<td>37.65 (0.29)</td>
<td>.207</td>
</tr>
<tr>
<td>12 months</td>
<td>37.93 (0.35)</td>
<td>38.54 (0.28)</td>
<td>.011</td>
</tr>
<tr>
<td>Knowledge</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>8.21 (0.14)</td>
<td>8.21 (0.15)</td>
<td>.862</td>
</tr>
<tr>
<td>12 months</td>
<td>8.46 (0.19)</td>
<td>9.76 (0.18)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>Observed performance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baseline</td>
<td>.629 (0.019)</td>
<td>.636 (0.018)</td>
<td>.631</td>
</tr>
<tr>
<td>4 months</td>
<td>.449 (0.017)</td>
<td>.597 (0.016)</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>12 months</td>
<td>.626 (0.021)</td>
<td>.651 (0.022)</td>
<td>.745</td>
</tr>
</tbody>
</table>

Note: a At baseline, for the difference in baseline means; at 4 months, for the difference in change from baseline; at 12 months, for the difference in overall outcome trajectories. The analytical models used to generate the results included indicator variables for facility pairs and race as covariates.
treatment by time interactions (i.e., each time point and the time interaction were modeled separately). The Stata 9 procedure XTGEE was used (StatCorp, 2005), which allows for robust standard error estimates and explicit modeling of covariance matrices and is relatively tolerant of missing data (Huber, 1967; White, 1980; Williams, 2000). Exchangeable covariance matrices were specified to allow for within-subject correlations with a minimum number of variance/covariance parameters to be estimated. Robustification was also used to correct for misspecification of the covariance matrix. Distributions were assumed, as all outcomes are continuous. The analytical models used to generate the results included indicator variables for facility pairs and race as covariates.

Results

The baseline description of the NAs with regard to demographic factors is shown in Table 3. The majority at both sites were women (93% in the control and 92% in treatment) and African American (96% in control and 92% in treatment), with an average age at the treatment sites of 38.56 ± 12.0 years and at the control group sites 38.6 ± 12.0 years; both treatment and control group NAs had approximately 12 years of experience as NAs and had on average 12.50 years ± 1.4 years of education at the control sites and 12.58 ± 1.5 years of education at the treatment sites. Despite randomization, there was a statistically significant difference (p = .04) at baseline with regard to race such that the control group included more African American NAs than the treatment group.

Results for outcome measures are presented in Table 4. There was a significant time by treatment group interaction for outcome expectations and job satisfaction such that NAs at the treatment sites improved in outcome expectations from baseline to 4 months (p = .040) and improved in job satisfaction from baseline to 12 months (p = .011), whereas the control group remained relatively stable. Those in the treatment group increased in outcome expectations from 37.15 to 38.36 at 4 months, whereas those in the control group showed a slight decrease, from 36.67 to 36.21. These differences were not maintained at 12 months (p = .499). There were no statistically significant differences for self-confidence between NAs in the treatment and control groups at either 4 or 12 months after intervention (p = .88 at 4 months and .56 at 12 months). Nursing assistants in both groups reported a consistently high level of confidence in their ability to provide Res-Care activities (ranging from 80.07 to 81.37 of 100.00). Job satisfaction improved in the treatment group from a baseline of 36.94 to 38.54 at 12 months compared with the control group, which went from a baseline of 37.61 to 37.93. Testing of Res-Care knowledge was not done at 4 months to avoid a testing effect following the baseline testing. There was, however, evidence of greater knowledge of Res-Care at 12 months after implementation of the intervention among the NAs in the treatment group (p ≤ .001). Scores in the treatment group increased from 8.21 to 9.76, whereas those in the control group showed only a very small increase from 8.21 to 8.46 over the course of the study.

Along with increased knowledge and beliefs about the benefits of Res-Care, the NAs in the treatment group demonstrated they were more likely than those in the control group to provide Res-Care in daily care activities at 4 months after intervention (p < .001). Although there was an actual decline in Res-Care behaviors from baseline to 4-month follow-up, the treatment group showed less of a decline than the control group. Specifically, at baseline the NAs in the control group provided Res-Care 63% of the time, whereas those in the treatment group provided Res-Care 64% of the time. At 4 months, this decreased to 45% in the control group and 60% in the treatment group. Like outcome expectations, however, this was not sustained at 12 months after intervention, by which time both groups essentially returned to baseline, with the control group providing Res-Care in 63% of care interactions and the treatment group in 65% of all observed care interactions.

Treatment Fidelity

With regard to delivery, 33% of the consented NAs at the treatment sites attended all six of the classes, and 53% of those who did not attend at least half of the classes received one-on-one review of the class content. Overall, 86% of the consented NAs were exposed to the content within the 6-week educational program. At the control sites, 18% of the consented NAs attended the in-service training. One-on-one education for those who missed the in-service training was not provided at the control sites. There was evidence of receipt of the intervention based on increased knowledge of Res-Care among those in the treatment group. Lastly, there was limited evidence for enactment of
Res-Care based on subjective report by the treatment group NAs of providing 70.5 (SD = 56.2) min daily of Res-Care. This finding is limited by the subjective nature of the report and the lack of comparative data collected from control site NAs. We deliberately did not obtain this information from control site NAs as it was intended to be a self-efficacy–based motivational intervention (i.e., self-modeling). There were no study-associated adverse events during the intervention period for either NAs or residents, such as falls, fractures, emergency room visits, hospitalizations, or deaths.

Discussion

The findings from this study demonstrate that 4 months after beginning the Res-Care intervention, the NAs at treatment sites had an increase in their outcome expectations for Res-Care and were less likely to show a decline in Res-Care activities than those in the control group. In addition, those in the treatment groups showed evidence of increased knowledge about Res-Care at 12 months after initiation of the intervention. It is difficult to determine the clinical impact of these differences. Given that our study is the only randomized controlled trial to quantitatively measure NA outcomes following a Res-Care intervention and supports our prior pilot work using a Res-Care approach (Galik, Resnick, & Gruber-Baldini, 2008; Resnick, Allen, & Ruane, 2002; Resnick & Simpson, 2003; Resnick et al., 2006), these findings demonstrating significant differences are an important first step to showing the positive benefit of Res-Care.

The NAs participating in this study who were exposed to the training specifically noted that the training in Res-Care they received changed their attitudes about Res-Care and how they approached residents. Many of the NAs indicated that prior to the initiation of the study, they believed they were providing Res-Care by walking residents to the dining room or other task areas. At the end of the study, the NAs noted a more comprehensive understanding of how Res-Care could, and should, be integrated into all care activities. Moreover, they found that the integrated approach to Res-Care was practical and a realistic option in their real-world settings (Galik et al., in press; Hoeffer et al., 2006; Johnson et al., 2004; Resnick et al., 2006; Resnick, Pretzer-Aboff et al., 2008).

Prior studies testing the impact of training interventions for caregivers in long-term care settings have likewise noted benefits following training in terms of increasing knowledge and changing care behaviors (Resnick & Simpson, 2003; Resnick, Pretzer-Aboff et al., 2008). Education alone, however, does not always change behavior (Blair et al., 2007). For example, a recent study testing four theoretically based educational programs for NAs focused on direct care interventions for activities of daily living but had no impact on care. Given the challenges of providing education for NAs and other caregivers at these sites (Blair & Glaister, 2005; Jette, Soreff, & Capriole, 2000), ongoing research is needed to consider if providing didactic information, using adult learner techniques, is useful and if this is the best way in which to change care behaviors. It is possible, for example, that knowledge may be better imparted and behavior change facilitated when less formal education is provided at the bedside or during brief interactions on the unit.

Exposure to the Res-Care intervention did not result in strengthening self-efficacy expectations related to Res-Care. In fact, self-efficacy expectations were generally high throughout the course of the study, approximately 80 of a total score of 100, and indicative of strong confidence to perform Res-Care behaviors even in the face of challenges. It is possible that the high self-efficacy expectations of the NAs may have actually decreased the amount of effort put into Res-Care activities (Powers, 1991; Vancouver, Thompson, Tischner, & Putka, 2002; Vancouver, Thompson, & Williams, 2001). The NAs generally believed they were able to perform Res-Care and thus did not try to increase the amount of Res-Care they were providing. Feedback to the NAs about their Res-Care behavior and using “teachable moments” during care interactions may help them gain more realistic beliefs about their Res-Care activities.

As reported earlier, the NAs in the treatment group showed less decline in the Res-Care activities that were performed at 4 months and a consistent trend of better maintenance of Res-Care behavior at 12 months. Overall, the treatment group showed an increase in the percentage of activities in which Res-Care was performed. This finding may be influenced by a number of factors, including measurement challenges, in that we observed the NAs for only 15 min at each testing time point (Resnick et al., 2007); policies and practices within the facility and lack of support of families and administration (Blair & Glaister, 2005; Blair et al., 2007); the motivation of the residents (Resnick, 2004); and the physical status of the...
residents (Vahakangas et al., 2006). It became clear during the course of the study that one of the biggest challenges associated with motivating residents to engage in functional activities and exercise was related to the increasingly strong focus on resident rights and a philosophy of care that allowed residents to refuse any and all interventions. Consistently, the NAs reported a fear that they might be accused of “abusing a resident” by encouraging self-care or participation in personal care rather than performing the activity for the resident. Future research needs to develop and test interventions that address these issues, such as by building a strong subsystem/environment that supports Res-Care, changing organizational philosophy and policies to be consistent with a Res-Care approach, ensuring sufficient resources, including all facility staff and families/proxies in the implementation of the program, and making the new intervention routine care (Edwards & Roelofs, 2006; Fonda, Cook, Sandler, & Bailey, 2006; Stacey, Pomey, O’Connor, & Graham, 2006).

Job satisfaction increased at 12 months after implementation of the intervention. This is consistent with other work in which self-efficacy-based interventions such as verbal persuasion and education about care-related activities resulted in improved job satisfaction and decreased turnover in NAs (Finnema et al., 2005; Parsons, Simmons, Penn, & Fulough, 2003; van Weert, Van Dulmen, Spreeuwenberg, Bensing, & Ribbe, 2005). Further, it is possible that other factors known to influence job satisfaction, such as the work environment (Tellis-Nayak, 2007) and opportunities for professional growth (Parsons et al., 2003), helped to improve job satisfaction among the treatment group participants.

Study Strengths and Limitations

Since the 1987 OBRA guidelines, NHs have been developing and implementing Res-Care programs or attempting to implement restorative philosophies to achieve this required level of care. Limited research has been done to test the effectiveness of these programs. This study tested a theoretically based intervention developed to implement a Res-Care philosophy in 12 matched NHs using a randomized design and was sufficiently powered to detect outcomes. The study was limited by the subjective reporting of the majority of the study outcomes and the attrition that occurred over the course of the study intervention.

In addition, the design of the study did not allow us to test if the two different tiers of the intervention are both needed to achieve the stated outcomes. Despite these limitations, however, this study provides an important step in understanding the implementation of Res-Care interventions and the effect this can have on NAs.

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