Effect of an Occupation-Based Cultural Heritage Intervention in Long-Term Geriatric Care: A Two-Group Control Study

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KEY WORDS
- adaptation, psychological
- culture
- group process
- human activities and occupations
- long-term care
- quality of life

OBJECTIVE. We investigated the effectiveness of an occupation-based cultural heritage intervention to facilitate adaptation to relocation into long-term care (LTC) facilities as measured by quality of life, activity engagement, and social participation.

METHOD. We used a quasi-experimental nonequivalent control group design with pre- and posttests. Residents receiving the cultural intervention were compared with residents in a typical activity group. Eight sessions, two per week for 4 wk, were facilitated by certified occupational therapy assistants.

RESULTS. Twenty-nine participants completed the group sessions. Quality-of-life scores improved significantly over time for both groups. Statistically, a greater percentage of time was spent in discretionary than obligatory time, pretest and posttest, with no significant difference between groups.

CONCLUSION. The study demonstrated effectiveness of a structured, occupation-based social group intervention that improved quality of life, an indicator of adaptation. It also provided a description of activity patterns and social participation of LTC residents.

As the need for long-term care (LTC) increases with the steady growth in the number of older adults, relocations into residential settings will increase. About 70% of people older than age 65 will require time in LTC services, and 40% will require nursing home care for a period of time (Jones, Dwyer, Bercovitz, & Strahan, 2009). Relocation is a move from one permanent home to another permanent home, and it is considered a significant life event (Hertz, Rossetti, Koren, & Robertson, 2007). Skinner (1992) noted that a forced relocation can have disturbing effects on an older adult, including loss of social and community connections. Even with planned relocation, however, encountering a new and unfamiliar environment requires an older person to rethink ways in which life will differ. Adjustment can take a few weeks to several years (Brandenburg, 2007; Krout & Pillemer, 2003). Many factors determine how this new life will evolve, including past adaptive strategies and life experiences, family support systems, socioeconomic resources, and cultural values.

Moving from a familiar environment to an unfamiliar one involves adaptation. The concept of adaptation has appeared in the literature of many disciplines, in which it refers to relationships between creatures and their environments. In health services research, Lawton and Nahemow’s (1973) classic theory of environmental press is based on the concept of adaptation and examination of relationships between people and their environmental contexts.
Conceptually, adaptation has been used extensively in health care disciplines as a foundation for practice and research (Frank, 1996; Roy & Andrews, 1999; Schultz & Schkade, 1997). Indicators of successful adaptation to LTC have included developing a sense of identity and place, having care needs met, knowing and being known to other residents, maintaining or developing social networks, experiencing continuity of lifestyle, and maintaining control over life situations (Chao et al., 2008; Heliker & Scholler-Jaquish, 2006; Hersch et al., 2004; Iwasiw, Goldenberg, Bol, & MacMaster, 2003). In this study, we defined adaptation as a normal process by which a person encounters a perceived challenge in the environment and successfully manages that challenge, as measured by increased quality of life, activity engagement, and social participation.

Related to adaptation is the cultural heritage that a person brings to the LTC facility on relocation. Evans, Crogan, and Schultz (2004) found in a study of the meaning of mealtimes in a nursing home that resident preferences were rooted in childhood and family. They suggested that dining experiences, such as a soul food day, that connect with residents’ personal remembrances can increase quality of life. Because culture affects the learned beliefs, values, customs, actions, communication, and life ways of a person (Leininger, 1991; Office of Minority Health, 2001; Spector, 2004), it can be expected to permeate all aspects of life in an LTC facility. Lack of social support, chronic illness, and cognitive impairment are prompting older Americans of all cultural backgrounds to enter LTC facilities (Stanford & Schmidt, 1995). As with their White counterparts, minority older adults are entering these settings in greater numbers because they are part of the growing population of older adults. Attention to cultural differences has only begun to make inroads into daily life in these facilities.

Quality of life (QOL) is a complex construct that has been used synonymously with terms such as well-being, life satisfaction, and functional health. Lawton (1991) asserted that QOL is a collection of dimensions consisting of objective and subjective factors that may include behavioral competence, objective environment, perceived QOL, psychological well-being, and health-related status. Other factors associated with QOL in an LTC facility include interaction with family and friends, personal qualities, room-and-board items, number of health problems, staff–patient ratios, and continuity of care (Coughlan & Ward, 2007; Guse & Masesar, 1999; Mitchell & Kemp, 2000). These factors attest to the importance of a person–environment match when QOL issues for nursing home residents are considered.

Incorporating meaningful activity and social connections into the lives of older adults whose occupational performance has been circumscribed by illness and disability is particularly important to residents’ QOL. Engagement in activity involves the performance of a task, whether it is self-care, work, leisure, or instrumental activities of daily living (IADLs). Social participation is sometimes difficult to distinguish from activity engagement because both involve activity. Mosey’s (1996) definition of social participation as “organized patterns of behavior that are characteristic and expected of an individual or a given position within a social system” (p. 340) highlighted the influence of social context on the individual. The gerontological literature has concentrated on personal care and IADLs and how they contribute to health and functional status (Horgas, Wilms, & Baltes, 1998). These obligatory tasks are essential to one’s survival, but perhaps even more significant to an older adult’s well-being are discretionary activities involving social and meaningful occupations. The findings of Kendig, Browning, and Young (2000) supported the proposition that activity and social support systems are important in mediating the impact of illness on well-being.

On the basis of findings from previous studies (Hersch, Spencer, & Kapoor, 2003; Spencer, Hersch, Aldridge, Anderson, & Ulbrich, 2001; Spencer et al., 2002), we created an occupation-based cultural heritage intervention (OBCHI). Central to the intervention was that person and environment factors contribute to the resident’s transition to an LTC facility. Implementing the OBCHI during this relocation period highlighted the resident’s cultural heritage. The significance of the intervention lies in the potential for modifying relocation stress and facilitating a more meaningful transition into LTC facilities for older adults. This intervention aligns with the profession’s mandate to facilitate productive aging in a variety of settings (American Occupational Therapy Association [AOTA], 2007).

The intent of this study was to determine whether the OBCHI facilitated older adults’ adaptation to their new home. We describe a 2-yr study funded by the National Institutes of Health and answer the following research questions:

1. What are the differences at baseline between groups on the measures of QOL, family support, physical and mental health, activity engagement, social participation, and environmental factors?
2. What relationships were found at baseline between these person and environment variables?
3. Does the intervention improve participants’ QOL, activity engagement, and social participation?
Method

Design

We used a quasi-experimental nonequivalent control-group design with pretests and posttests (Cook & Campbell, 1979). Site matching and randomization were initially proposed, but because of recruitment issues, adding four additional sites that were not randomized was necessary. However, we considered the mix of or predominant ethnic groups residing in each facility to keep to the original plan as much as possible. We compared residents who received the cultural intervention with those who received a typical activity group without culturally specific elements. We obtained institutional review board approval from Texas Woman’s University for all sites and approval from another university’s managed facility at the initiation of the study, and we renewed the approvals on a yearly basis. All participants gave written informed consent to participate.

Sample

Participants were recruited from 10 LTC facilities—specifically, skilled nursing units—in a southwestern metropolitan city; however, in three of those facilities the number of participants was insufficient to form a group, resulting in seven sites for the intervention and control groups. Residents who participated in the study met the following criteria: age ≥ 55 yr; relocation into the project site during the previous year; receiving licensed nursing care, but not in a hospice or locked unit; White or African-American; English speaking; and able to participate in interviews, as determined by a score of ≤5 on the Short Portable Mental Status Questionnaire (SPMSQ; Pfeiffer, 1975).

Development and Implementation of the OBCHI and Control Groups

We chose a group approach to intervention on the basis of support from the literature (O’Sullivan, 2004; Spilak, 1999; Voelkl, Fries, & Galecki, 1995). Structure and format for both control and intervention groups were identical: Each group consisted of eight 1-hr sessions that took place twice weekly for 4 wk. Protocols were structured to include specific guidelines, group names, expectations of group leaders and members, methods of delivery, equipment lists, and recommended scripts for facilitators (Howe & Schwartzberg, 2001). The group format consisted of an introduction, warm-up, activity, discussion, and closure.

Control and intervention groups differed by content. The content for the control group consisted of the usual activities, determined by examining calendars of activities in the LTC facilities and by reviews of current literature. Protocols included structured activities of exercise, poetry writing, current events, and crafts. We derived content for the intervention protocols from qualitative interviews conducted with residents in six LTC facilities (the first aim of the study) that focused on people and cultural characteristics of older adults relocating to LTC facilities. The interviews generated themes of family traditions that shaped their lives, food as part of family roots, enjoyment of music, home, family, occupations of work and leisure, and spirituality (Hutchinson, Hersch, Davidson, Mastel-Smith, & Chu, 2011).

For our second aim, we designed group protocols for the intervention incorporating these themes and based on principles delineated by Clark et al. (1996), Cole (2005), and Howe and Schwartzberg (2001). The protocols were reviewed by one expert each in the fields of nursing and occupational therapy to test content validity. Recommended changes were incorporated into the final protocol manual. Further information about the intervention can be obtained by contacting Gayle Hersch.

Two certified occupational therapy assistants conducted the groups, assisted by a trained graduate research student. Both assistants were blinded to group assignment; one was trained in the intervention protocol, and the other was trained in the control protocol. A third certified occupational therapy assistant, trained in both intervention and control protocols, served as a substitute when needed. The initial series of eight sessions for both intervention and control groups was monitored by one of the investigators (G. Hersch, S. Hutchinson, or C. Wilson) to ensure that the protocol was followed.

Instrumentation

Pregroup tools included the Medical Outcome Studies Short Form 12 (SF–12; Jenkinson et al., 1997; Ware, Kosinski, & Keller, 1996), Duke Social Support and Stress Scale (DUSOCS; Parkerson et al., 1989), and Sheltered Care Environment Scale (SCES; Moos & Lemke, 1984). The Yesterday Interview (YI; Moss & Lawton, 1982) and Quality of Life Index: Nursing Home Version (QLI; Ferrans & Powers, 1985, 1992) were administered before and after the intervention and served as outcome measures.

SF–12. We used the SF–12 to assess physical and mental health status. It has excellent reliability and validity, with the physical and mental function component scores being highly predictive of the scores obtained from the full SF–36 (Ware & Sherbourne, 1992).

DUSOCS. The DUSOCS was developed to measure covariates of family and nonfamily support and stress. This
24-item self-report instrument has the respondent rate, on a 3-point scale, the extent to which types of family members or nonfamily members provide support. Reliability tests have found Cronbach’s αs of .71 for family support and .70 for nonfamily support (Parkerson, Broadhead, & Tse, 1991).

SCES. The 63-item SCES measures the influence of the LTC facility’s environment on adaptation. It assesses three domains of social climate: relationship dimensions (Cohesion and Conflict subscales), personal growth dimensions (Independence and Self-Exploration subscales), and system maintenance and change dimensions (Organization, Resident Influence, and Physical Comfort subscales; Moos & Lemke, 1984). Internal consistencies (Cronbach’s α) for six of the seven subscales were acceptable to high (αs = .59–.79), and the Resident Influence subscale indicated moderate internal consistency (α = .44; Moos & Lemke, 1984).

YI. The YI documents engagement in activities and social relationships. It uses a simple grid to record a person’s report of activities during the previous day, including social partners, kinds of assistance needed, locations in which activities occurred, and whether activities were obligatory or discretionary. Obligatory activities are considered essential for survival and seen as a constraint; in contrast, discretionary activities are self-chosen and address needs for affection, knowledge, or pleasure (Moss & Lawton, 1982). For this study, we describe only the number of activities spent in obligatory and discretionary activities. A study by Horgas et al. (1998) reported good interrater reliability for activity codes and domains with ks > .80.

QLI. The QLI determines QOL among nursing home residents. It rates satisfaction and importance measures for several constructs related to QOL by means of four subscales: (1) Health and Function, (2) Social and Economic, (3) Psychological/Spiritual, and (4) Family. For each subscale and overall score, satisfaction items are weighted by importance responses and summed; higher scores indicate high satisfaction or high importance, and lower scores indicate high dissatisfaction or low importance. The overall QLI scores can range from 0 to 30. Internal consistency for the total QLI scale has been described in 26 studies and is supported by Cronbach’s αs ranging from .84 to .98 (Ferrans & Powers, 1985).

Data Collection Procedures and Management

Before the group sessions began, enrollees were administered pregroup tools by a trained data collector with a geriatric nursing background who was blinded to the groups and sites. Postgroup tools were administered to determine changes in QOL, activity engagement, and social participation after the group activities. Participant names were coded for confidentiality.

Data Analysis

The YI was coded and analyzed by research team members to account for reliability of codes. Thirty raw codes were initially identified—for example, personal care, shopping, resting, and listening to music—and were collapsed into seven main categories: (1) self-care activities of daily living, (2) IADLs, (3) leisure activities, (4) social interaction, (5) spirituality, (6) rest, and (7) social participation. These categories were then identified as obligatory or discretionary activities.

We examined the distributional properties of the data using means, standard deviations, frequencies, and percentages. Group differences in participant characteristics were examined with χ² tests of associations. A series of analyses of variance (ANOVAs) and correlational analyses was used to address the research questions. More specifically, we conducted a one-factor between-groups ANOVA to assess group differences in QOL, family support, physical and mental health, activity engagement, social participation, and environmental factors (Research Question 1). We used correlational analyses to examine the relationships between baseline person and environment variables (Research Question 2). We used repeated-measures ANOVAs to address Research Question 3. Repeated-measures ANOVAs contained one between-groups factor (study group: intervention or control) and one within-group factor (time: baseline or postintervention). We conducted repeated-measures ANOVAs using a mixed-model format to allow for inclusion of participants with only baseline measures.

Results

Participant Characteristics

Twenty-nine participants completed the group sessions with a range of 2–4 per group. They were recruited from seven LTC facilities and matched on the basis of ethnicity: predominantly African-American, predominantly White, and mixed African-American and White. There was differential representation of ethnic groups in intervention and control groups: African-Americans constituted 68.8% of the participants in the intervention group, and Whites constituted 61.5% of the participants in the control group. The median age range was between 71 and 75 yr for both groups, and the control group had a higher percentage of participants > age 80 (46.2% for
the control group vs. 18.8% for the intervention group). Most participants (82.8%) were female. Additional information on participant characteristics is provided in Table 1.

Although all participants had to pass the SPMSQ, participants with lower scores were disproportionately represented in the intervention group (56.3% vs. 30.8%). We detected no significant differences at baseline between the intervention and control groups, other than cognition, for which 69.2% of the control group fell into the normal to mild cognitive impairment range, in contrast to 43.8% of the intervention group.

**Findings From the Baseline Tools**

We conducted posterior power analyses to assess the detectable effect given the study sample size. Given an α level of .05 and 29 participants, the power to detect a large group main effect (Cohen’s standardized \( d = 1.09 \)) and moderate associations (\( r = .43 \)) was 80%. Given the repeated-measures ANOVA and a correlation across time, the power to detect a moderate interaction effect was 80% (\( d = 0.42 \); Faul, Erdfelder, Lang, & Buchner, 2007).

Using baseline scores as dependent variables and study group as the factor, results from the ANOVAs showed no significant differences between groups on baseline measures (Table 2). However, as measured by the SF–12, both groups had lower physical and mental scores than the norm (median = 50), evidence of the frailty of this sample. The intervention group showed a trend (\( F[1, 27] = 3.42, p = .077 \)) for a significantly lower physical health score than the control group. We calculated correlations of participant characteristics with QOL and found that QOL was significantly and positively correlated with the SF–12 physical health score (\( r = .45, p = .023 \)), mental health score (\( r = .69, p = .0001 \)), SCES personal growth dimension (\( r = .53, p = .003 \)), and DUSOCS nonfamily support score (\( r = .44, p = .017 \)).

QOL was significantly and negatively correlated with DUSOCS family stress score (\( r = -.38, p = .040 \)) and social stress score (\( r = -.38, p = .041 \)).

**Findings From the Outcome Measures**

Results from the repeated-measures ANOVA showed that scores for the overall QOL (\( F[1, 24] = 7.50, p = .011 \)), Health and Function (\( F[1, 24] = 4.32, p = .048 \)), and Psychological/Spiritual (\( F[1, 24] = 8.46, p = .008 \)) subscales improved over time for both groups. We observed no significant differences between groups for the Social and Economic Family subscales. The control group showed an overall slightly higher increase on all QOL subscales compared with the intervention group (see Table 3).

For the YI, examination of activity engagement and social participation revealed an average of 13–14 hr was spent awake, preintervention and postintervention, for all participants. A greater percentage of time was spent in discretionary time than in obligatory time both preintervention and postintervention, but the results of the repeated-measures ANOVA showed no significant difference between groups.

**Discussion**

Although literature on relocation into LTC facilities exists, little is known about interventions that facilitate the adaptation process (Lee, Woo, & Mackenzie, 2002). In addition, outcomes of adaptation vary depending on the discipline and research focus (Clark et al., 1996; Keister, 2006). In this study, we applied the OBCHI model by testing a cultural and social intervention and measuring the outcomes of QOL, activity engagement, and social participation as indicators of adaptation. We found no literature showing how an organized cultural heritage intervention might affect LTC adaptation; thus, this research was without precedent. The outcome measure of QOL, an indicator of adaptation, did improve for both
intervention and control groups over time. Increased QOL may be attributed to several factors. One, in particular, is the client-centered approach whereby all participants received planned and meaningful group activities led by a certified occupational therapy assistant. Group sessions were structured for both groups and differed only by content. The structured activities provided the opportunity for activity engagement and social participation to occur in both groups. Engagement of residents in small-group interaction and meaningful occupations fostered a sense of connection with other group members, as indicated by the positive comments made in the midsession and final satisfaction surveys completed by all participants (Robinson, 2009). On the basis of Hertz et al.’s (2007) research, one of the interventions suggested for postrelocation is to provide opportunities for participation in social gatherings and activities that are tailored to the interests and values of residents. Underlying such interventions is the assumption that meaningful activities are integral to the health promotion of the individual.

### Table 2. Baseline Scale Scores by Study Group

<table>
<thead>
<tr>
<th>Scale</th>
<th>Intervention (n = 16); M (SE)</th>
<th>Control (n = 13); M (SE)</th>
<th>Total (N = 29); M (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCES Total Cohesion subscale</td>
<td>60.4 (0.5)</td>
<td>51.3 (0.8)</td>
<td>56.3 (0.5)</td>
</tr>
<tr>
<td>SCES Total Conflict subscale</td>
<td>59.0 (0.6)</td>
<td>51.3 (0.6)</td>
<td>55.6 (0.4)</td>
</tr>
<tr>
<td>SCES Total Independence subscale</td>
<td>47.2 (0.4)</td>
<td>44.4 (0.6)</td>
<td>46.0 (0.3)</td>
</tr>
<tr>
<td>SCES Total Self-Exploration subscale</td>
<td>40.3 (0.5)</td>
<td>27.4 (0.4)</td>
<td>34.5 (0.3)</td>
</tr>
<tr>
<td>SCES Total Organization subscale</td>
<td>59.0 (0.6)</td>
<td>58.1 (0.6)</td>
<td>58.6 (0.4)</td>
</tr>
<tr>
<td>SCES Total Resident Influence subscale</td>
<td>43.1 (0.4)</td>
<td>52.1 (0.4)</td>
<td>47.1 (0.3)</td>
</tr>
<tr>
<td>SCES Total Physical Comfort subscale</td>
<td>68.1 (0.4)</td>
<td>75.2 (0.5)</td>
<td>71.3 (0.3)</td>
</tr>
<tr>
<td>SCES Relationship Dimension</td>
<td>51.7 (0.8)</td>
<td>44.4 (1.0)</td>
<td>48.5 (0.6)</td>
</tr>
<tr>
<td>SCES Personal Growth Dimension</td>
<td>43.8 (0.7)</td>
<td>35.9 (0.9)</td>
<td>40.2 (0.6)</td>
</tr>
<tr>
<td>SCES System Maintenance and Change Dimension</td>
<td>56.7 (1.0)</td>
<td>61.8 (0.9)</td>
<td>59.0 (0.7)</td>
</tr>
</tbody>
</table>

**SF–12**

<table>
<thead>
<tr>
<th></th>
<th>Norm Physical score</th>
<th>Norm Mental score</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCES Total Cohesion subscale</td>
<td>37.2 (1.9)</td>
<td>48.7 (1.8)</td>
</tr>
<tr>
<td>SCES Total Conflict subscale</td>
<td>43.1 (2.2)</td>
<td>44.5 (2.9)</td>
</tr>
<tr>
<td>SCES Total Independence subscale</td>
<td>39.3 (1.5)</td>
<td>47.2 (1.6)</td>
</tr>
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</table>

**DUSOCS**

<table>
<thead>
<tr>
<th>Scale</th>
<th>Intervention (n = 16); M (SE)</th>
<th>Control (n = 13); M (SE)</th>
<th>Total (N = 29); M (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCES Total Cohesion subscale</td>
<td>38.6 (5.5)</td>
<td>41.0 (5.7)</td>
<td>39.7 (3.9)</td>
</tr>
<tr>
<td>SCES Total Conflict subscale</td>
<td>85.4 (14.0)</td>
<td>76.3 (20.1)</td>
<td>81.3 (11.7)</td>
</tr>
<tr>
<td>SCES Total Independence subscale</td>
<td>61.9 (8.5)</td>
<td>64.0 (10.0)</td>
<td>62.9 (6.4)</td>
</tr>
<tr>
<td>SCES Total Self-Exploration subscale</td>
<td>16.5 (3.8)</td>
<td>12.5 (4.5)</td>
<td>14.7 (2.9)</td>
</tr>
<tr>
<td>SCES Total Organization subscale</td>
<td>28.1 (6.9)</td>
<td>27.6 (5.1)</td>
<td>27.9 (4.4)</td>
</tr>
<tr>
<td>SCES Total Resident Influence subscale</td>
<td>22.4 (5.1)</td>
<td>16.4 (5.8)</td>
<td>19.7 (3.8)</td>
</tr>
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</table>

**SF–12**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Intervention (n = 16); M (SE)</th>
<th>Control (n = 13); M (SE)</th>
<th>Total (N = 29); M (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCES Total Cohesion subscale</td>
<td>19.08 (1.54)</td>
<td>21.49 (1.63)</td>
<td>2.41 (1.19)</td>
</tr>
<tr>
<td>SCES Total Conflict subscale</td>
<td>16.64 (2.15)</td>
<td>19.47 (2.30)</td>
<td>2.83 (1.80)</td>
</tr>
<tr>
<td>SCES Total Independence subscale</td>
<td>20.20 (1.59)</td>
<td>21.21 (1.68)</td>
<td>1.01 (1.16)</td>
</tr>
<tr>
<td>SCES Total Self-Exploration subscale</td>
<td>21.01 (1.55)</td>
<td>24.54 (1.70)</td>
<td>3.53 (1.59)</td>
</tr>
<tr>
<td>SCES Total Organization subscale</td>
<td>20.93 (1.51)</td>
<td>22.62 (1.66)</td>
<td>1.69 (1.63)</td>
</tr>
<tr>
<td>SCES Total Resident Influence subscale</td>
<td>13.38 (0.59)</td>
<td>13.70 (0.70)</td>
<td>0.32 (0.81)</td>
</tr>
<tr>
<td>SCES Total Physical Comfort subscale</td>
<td>4.96 (0.58)</td>
<td>4.55 (0.70)</td>
<td>-0.41 (0.98)</td>
</tr>
<tr>
<td>SCES Relationship Dimension</td>
<td>7.77 (0.74)</td>
<td>9.25 (0.88)</td>
<td>1.48 (1.26)</td>
</tr>
<tr>
<td>SCES Personal Growth Dimension</td>
<td>36.77 (3.93)</td>
<td>32.29 (4.61)</td>
<td>-4.48 (7.02)</td>
</tr>
<tr>
<td>SCES System Maintenance and Change Dimension</td>
<td>57.82 (4.57)</td>
<td>68.49 (5.30)</td>
<td>10.67 (8.29)</td>
</tr>
</tbody>
</table>

**Note.** DUSOCS = Duke Social Support and Stress Scale; M = mean; SCES = Sheltered Care Environment Scale; SE = standard error; SF–12 = Medical Outcome Studies Short Form 12.

*Missing data for 4 participants.

*Trend for significant difference, F(1, 27) = 3.42, p = .077.

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**Table 3. Estimated Means, Standard Errors, and Results for Quality of Life (QOL) and Yesterday Interview Scores**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pretest M (SE)</th>
<th>Posttest M (SE)</th>
<th>Difference M (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>QOL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall QOL</td>
<td>21.25 (1.39)</td>
<td>23.02 (1.39)</td>
<td>1.78 (0.96)</td>
</tr>
<tr>
<td>Health and Function</td>
<td>18.51 (1.94)</td>
<td>20.48 (1.94)</td>
<td>1.97 (1.45)</td>
</tr>
<tr>
<td>Social and Economic</td>
<td>22.34 (1.43)</td>
<td>23.45 (1.43)</td>
<td>1.11 (0.93)</td>
</tr>
<tr>
<td>Psychological/Spiritual</td>
<td>23.96 (1.40)</td>
<td>26.39 (1.40)</td>
<td>2.43 (1.29)</td>
</tr>
<tr>
<td>Family</td>
<td>22.83 (1.36)</td>
<td>24.25 (1.36)</td>
<td>1.43 (1.32)</td>
</tr>
<tr>
<td>Yesterday Interview</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total time awake</td>
<td>14.09 (0.53)</td>
<td>14.80 (0.55)</td>
<td>0.70 (0.65)</td>
</tr>
<tr>
<td>Total time in obligatory activities</td>
<td>4.83 (0.53)</td>
<td>5.97 (0.54)</td>
<td>1.14 (0.83)</td>
</tr>
<tr>
<td>Total time in discretionary activities</td>
<td>8.95 (0.67)</td>
<td>8.87 (0.69)</td>
<td>-0.08 (1.07)</td>
</tr>
<tr>
<td>% time in obligatory activities</td>
<td>34.91 (3.55)</td>
<td>40.34 (3.64)</td>
<td>5.43 (6.00)</td>
</tr>
<tr>
<td>% time in discretionary activities</td>
<td>62.62 (4.12)</td>
<td>59.81 (4.23)</td>
<td>-2.81 (7.13)</td>
</tr>
</tbody>
</table>

**Note.** M = mean; SE = standard error.
Participants’ activity patterns and social relationships not only served as measures for adaptation but also provided an understanding of life in LTC. Other occupational therapists have studied the everyday life of community-dwelling older adults (Larsson, Haglund, & Hagberg, 2009; McKenna, Broome, & Liddle, 2007). In this study, findings from the YI provided a description of how residents spend their time in an LTC facility. One-third of time was spent in obligatory personal maintenance tasks. Yet many activities in which residents engaged were discretionary and included IADLs; leisure activities, both alone and with others; and social interaction with residents, staff, and family. An important element of the day was resting, which included sleeping, napping, and doing nothing. Rest and sleep are now considered in the Occupational Therapy Practice Framework (2nd ed.; AOTA, 2008) to be a performance area of occupation that “support[s] healthy active engagement in other areas of occupation” (p. 632). The question commonly asked of clients by therapists, “Tell me about a typical day,” takes on greater importance when one sees the extent to which these performance areas play a part in a resident’s life.

Implications for Occupational Therapy Practice
The findings from this study have implications for occupational therapy practice in long-term care expanding to include the following tasks:

- Preparation of clients as they relocate from acute medical care to long-term care to facilitate the adaptive process to a new setting.
- Development of roles as consultant or program manager, providing educational strategies to long-term care service providers to promote a culturally sensitive context for residents.
- Exploration of innovative group methods and cultural programming to facilitate the adaptive process for new residents.
- Identification and management of potential challenges that may arise with the assumption of new roles in the long-term care facility.

Limitations
Limitations include recruitment challenges that decreased the number of available group participants. Frailty of an LTC population, which is characterized by cognitive deficits, hospitalizations, and death, limited our ability to reach the initial projected sample size. Originally, site matching, site randomization, and matching residents by ethnicity, gender, and age to the control and intervention groups were proposed; however, we did not completely accomplish this goal because of the limited availability of participants and the attempt to obtain a working group size.

Adaptation may be influenced by length of stay in an LTC facility and reasons for admission. Although all study participants had been in the LTC facility ≤ 12 mo, the lengths of stay differed, and we did not obtain reasons for admission. Additional limitations were reduced power to detect changes, inability to examine potential moderating effects, and change in group facilitators, possibly affecting the continuity of the group sessions.

Directions for Future Research
Findings from this study demonstrate that a client-centered approach with specifically planned and meaningful activities in a social context can result in increased QOL for newly admitted residents. With that observation, additional research questions arise. Further consideration of an appropriate measure for adaptation and identification of alternative measures is needed to understand the relocation phenomenon. Investigating features of the intervention that made a difference in residents’ lives, including dosage, duration, and effects on activity engagement and social participation, is crucial. Other research possibilities include examining the cognitive element and its relationship to benefits and having groups of like ethnicities rather than mixed ethnicities. The temporal factor appears to be a determinant in knowing just when to implement the intervention; that is, how soon after admission will give the best effect? Also, further investigation into the environmental features of LTC facilities influencing the adaptation of the resident is needed.

As more older Americans from diverse ethnic backgrounds relocate to LTC facilities, the role of occupational therapy will expand to reach not only those requiring rehabilitation but also those entering to age in place. Occupational therapists’ responsibility, then, will become one of facilitating the adaptation process so that residents’ lives are satisfying and meaningful.

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