A Comparison of Job Satisfaction Among Nursing Assistants in Nursing Homes and the Program of All-inclusive Care for the Elderly (PACE)

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As the elderly population in this country continues to increase, the population of individuals with chronic illnesses who need long-term care is also increasing (Hazzard, Bierman, Blass, Ettinger, & Halter, 1994). Although much of the care provided to frail elderly individuals is given by informal caregivers (Hazzard et al., 1994; U.S. Senate Special Committee on Aging, 1991), the need for formal systems of long-term care and individuals to provide that care continues to grow (Hazzard et al., 1994; Taeuber, 1992). This care has traditionally been provided in nursing homes, and, more recently, in several different community-based long-term care alternatives.

Nursing assistants (NAs) provide up to 90% of patient care in nursing homes. Their interaction with patients is therefore a critical facet of providing high quality care in this setting (Waxman, Carner, & Berkenstock, 1984). Yet job satisfaction in nursing homes is frequently low, leading to high turnover rates—an average of 40—75% per year nationally—which, in turn leads to decreased quality of care and increased cost (Waxman et al., 1984; Pillemer, 1996). Several studies have shown that high rates of job satisfaction and low turnover rates result from better staffing ratios, participation in decision making, a sense of teamwork, and relationships with patients (Caudill & Patrick, 1989; Holtz, 1982; Monahan & McCarthy, 1992; Waxman et al., 1984).

One alternative to the traditional nursing home model of long-term care is the community-based Program of All-inclusive Care for the Elderly (PACE). The aim of PACE is to enable its frail elderly participants to remain as healthy as possible in their homes while delaying or avoiding premature institutionalization. The PACE demonstration project replicates the On Lok program in San Francisco (Branch, Coulam, & Zimmerman, 1995; Eng, Pedulla, Eleazer, McCann, & Fox, 1997; Kane, Illston, & Miller, 1992). PACE provides, manages, and coordinates all health, medical, and social services across the continuum of care settings, to maximize elderly participants’ independence. A multidisciplinary team orchestrates this care through the use of day health centers (a medical day care program that includes rehabilitation and social work staff) with a primary care clinic on site. In-home and specialty services are also provided as needed. Funding for the program is provided through capitated monthly fees from Medicare and Medicaid. There are currently 12 dually capitated PACE programs and 14 Medicaid-capitation only programs in operation across the country (National PACE Association, 1998).

With a strong focus on interdisciplinary team decision making and care provision, PACE incorporates into its model of care many of the characteristics that have been associated with higher NA job satisfaction.
Anecdotaly, this approach seems to be associated with high levels of NA job satisfaction as well as patient satisfaction, but it is unclear whether this is a finding across PACE sites, and, if so, whether there are particular elements of this approach that contribute more strongly to NA job satisfaction. Understanding the contributions to NA job satisfaction will be important in standardizing the approach to care at PACE sites, and, potentially, in adapting certain aspects of this model to other long-term care settings.

We hypothesized that there would be a significantly higher level of job satisfaction among NAs in PACE models of care versus NAs in nursing homes. We further hypothesized that the difference in job satisfaction would be a function of both hiring practices as well as the job description itself. In other words, we predicted that PACE programs might have a more satisfied NA staff in part because they were able to attract and hire a different group of individuals, and secondly, because of the job environment once those individuals were hired. The objectives of this study were therefore: first, to compare job satisfaction of nursing assistants at PACE sites and their neighboring nursing homes; and second, to identify elements of job descriptions and individual characteristics associated with job satisfaction.

Methods

Setting.—Five PACE programs (both dually and Medicaid-only capitated) that had been operational for at least 6 months, and a nursing home near each site, were chosen for evaluation. Sites were recruited at the PACE service conference in November 1996. As part of that process, a representative from each site was asked to fill out a one-page questionnaire detailing the length of operation, number of NA staff members, relationship with an area nursing home, presence of a contact person who would be responsible for coordinating collection of data, and interest in the study. Sites were selected after review of these questionnaires, based upon diversity of location, length of operation, size, and relationship with a neighboring nursing home, as well as perceived feasibility of collecting data.

Respondents.—After receiving institutional review board approval from the coordinating institution, all full-time NAs at the five sites were asked to participate in the study. Participants were paid a token amount to fill out the survey. A contact person was identified at each site to encourage participation of staff in this study. A member of the research team (C.D.) visited each site and personally administered the survey tool to the NAs at the PACE programs and nursing homes. In addition to the information collected from each NA, site-specific information on turnover rates and salary ranges was also collected.

Evaluation.—Each participant completed a 1-hour survey form, which asked questions about the NAs, their jobs, and their level of satisfaction.

The first part of the survey was a general demographic tool. Several predictor variables, including age, race, gender, and level of education, were assessed. NAs were also asked about the length of time that they had worked in their current job. Other questions asked whether they had had regular experience with elderly people during their childhood years, and, if so, whether these were remembered as very good experiences. NAs were asked to rate how important religion was to them, with the idea that spirituality might have an effect on how they viewed their job.

With respect to job description, respondents were asked about the settings that they currently worked in and the patient care activities that they participated in on a typical day. In addition, they were given the Reality Check Indicator, a tool developed by the investigators from a review of the literature, personal clinical experiences working with long-term care NAs, and NA job activities. The items were reviewed by a panel of experts in long-term care and agreement was reached on the 11 items to be included in the final version of the instrument. Respondents were asked to rate the importance of each job element and the frequency with which each job element was present in their work. The response format for rating the importance of each job element was a 4-point scale: 1 = not important, 2 = somewhat important, 3 = very important, and 4 = extremely important. The response format for rating how often each job element was present was also a 4-point scale: 1 = rarely to never, 2 = sometimes, 3 = frequently, and 4 = always or most of the time. Cronbach’s alpha reliability of 0.83 was found for the importance of job elements, and 0.87 for how often each job element was present.

Job satisfaction was determined in two ways. First, respondents were asked to rate on a scale from 1–5 how satisfied they were with their current job, as well as how likely they were to leave their job in the next year. Second, they were each given the Minnesota Satisfaction Questionnaire (MSQ; Weiss, Davis, England, & Lofquist, 1967). This scale contains 20 statements related to pay, work environment, and management style. The response format for the instrument was a 5-point scale: 1 = very dissatisfied, 2 = dissatisfied, 3 = neutral, 4 = satisfied, and 5 = very satisfied. Higher scores on the MSQ indicate a higher level of job satisfaction. Cronbach’s alpha reliability of 0.90 was found in this sample.

The MSQ has been used by several investigators to rate job satisfaction among NAs in long-term care (Grieshaber, Parker, & Deering, 1995; Waxman et al., 1984). The validity and reliability of the instrument has been well documented (Gillett & Schwab, 1975; Weiss et al., 1967). This instrument was selected for the study because it was easy to administer and required only an elementary school reading level (Grieshaber et al., 1995).

Finally, each subject completed a Myers-Briggs Personality Type Indicator. This instrument was developed from Carl Jung’s theory of psychological types. It has been widely recognized and has a well-established record for reliability and validity (Myers & McCaulley, 1985).
Table 1. Job Satisfaction: Mean Rank

<table>
<thead>
<tr>
<th></th>
<th>Nursing Home</th>
<th>PACE</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minnesota Job Satisfaction score (mean)</td>
<td>3.29</td>
<td>3.53</td>
<td>.001</td>
</tr>
<tr>
<td>Likelihood of leaving in next year (1–5)</td>
<td>2.66</td>
<td>2.60</td>
<td>.66</td>
</tr>
</tbody>
</table>

Results

There were 397 full-time NAs at the five nursing home sites and 191 full-time NAs at the five PACE sites. A total of 213 NAs in nursing home sites (53.7%) and 136 NAs in the PACE model (71.2%) completed the survey (p < .0001)

Job satisfaction was significantly higher among PACE NAs than among those working at nursing homes as measured in two ways (Table 1). First, the mean MSQ score was 3.53 in PACE, with a range among sites of 3.37 to 4.11. The mean MSQ score in nursing homes was 3.29 (p = .001), with a range among sites of 3.10 to 3.41. Second, when respondents were asked to rank their level of satisfaction on a scale from 1 (very dissatisfied) to 5 (very satisfied), the rating was 4.12 in PACE and 3.83 in nursing homes (p = .002).

Respondents reported no significant difference in the likelihood of leaving in the next year (Table 1). However, in four of the five sites, turnover rates were higher in the nursing home than in the PACE sites. The median turnover rate was 58.4% (range 26.2–69.0%) in the nursing homes, and 30.0% (range 20.0–47.0%) in the PACE sites.

A forward stepwise linear regression was completed to evaluate independent associations with job satisfaction. A regression was first completed including demographic and other variables (age, education, experience with elderly people during childhood), as well as the responses to the Reality Check Indicator. The response to frequency of “amount of ongoing inservice” was removed from analysis, because there were more than 200 missing values to this question, which would have limited the analysis. A second regression was then completed, including all of the previous variables entered, as well as the variable of working in PACE versus nursing home sites. In both regressions, the importance of ongoing inservice, the frequency of respect for suggestions, the frequency of having a chance to organize one’s workload, age, and lack of regular experience with elderly people as a child were independently associated with job satisfaction (Table 2). Working in a PACE site was independently predictive of job satisfaction when this variable was added to the model.

Because PACE was an independent predictor of job satisfaction among NAs, characteristics of the NAs in the two models of care were compared to determine whether differences in job satisfaction might be due to differences with respect to the individuals hired. No differences were identified between NAs in nursing homes and PACE programs with respect to age, gender, race, education, childhood experience with older adults, or importance of religion (Table 3). There were no significant differences in Myers-Briggs profiles between the two models, and this has been reported elsewhere (Daub, Friedman, Cresci, & Keyser, in press).

Table 2. Predictors of Job Satisfaction

<table>
<thead>
<tr>
<th>Variable</th>
<th>Beta</th>
<th>B</th>
<th>SE B</th>
<th>t</th>
<th>p Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular experience w/elderly as child</td>
<td>-.11</td>
<td>-.21</td>
<td>.10</td>
<td>-2.09</td>
<td>.04</td>
</tr>
<tr>
<td>Importance of ongoing inservice</td>
<td>.20</td>
<td>.25</td>
<td>.07</td>
<td>3.68</td>
<td>.0003</td>
</tr>
<tr>
<td>Frequency of respect for suggestions</td>
<td>.22</td>
<td>.18</td>
<td>.05</td>
<td>3.55</td>
<td>.0005</td>
</tr>
<tr>
<td>Frequency of chance to organize workload</td>
<td>.17</td>
<td>.15</td>
<td>.05</td>
<td>2.86</td>
<td>.005</td>
</tr>
<tr>
<td>Age</td>
<td>.15</td>
<td>.01</td>
<td>.004</td>
<td>2.75</td>
<td>.006</td>
</tr>
<tr>
<td>Frequency of chance to discuss patients w/team</td>
<td>-.13</td>
<td>-.13</td>
<td>.06</td>
<td>-2.31</td>
<td>.02</td>
</tr>
<tr>
<td>Work in PACE program</td>
<td>.12</td>
<td>.22</td>
<td>.10</td>
<td>2.23</td>
<td>.03</td>
</tr>
</tbody>
</table>

*Also entered into the regression but not significant: level of education, importance of the following: variety, inclusion in team meetings, receiving positive feedback, respect for choices in the types of assignments, chance to use own judgment, chance to form close relationships, chance to discuss patients with other members of the team, getting help from peers, respect for suggestions by people who make decisions about patient care, and chance to organize daily work load; frequency of the following: the chance to form close relationships with patients, variety, getting help from peers in doing daily tasks, receiving positive feedback, respect for choices in types of assignments, and being included in team meetings.

Note: N = 293, R² = .21, F(7,283) = 10.94, p < .0001.
The chance to discuss my patients with other team members
The variety in my work
The chance to form close relationships with my patients
The chance to use my own judgment
The amount of ongoing inservice training I get
The chance to organize my daily workload
1 = rarely or never, 4 = always or most of the time; Mean rank on scales.

important are compared to work environment factors "Please rank how often the following items are present in your job" 1-4,
Being included in team meetings
Receiving positive feedback
Getting help from my peers in doing daily tasks
Respect for my suggestions by people who make decisions about patient care, "receiving positive feedback," "getting help from my peers in doing daily tasks," and "the chance to organize my daily workload." All elements surveyed had a mean response greater than 3.0, which was a ranking of "very important."

In contrast, there were several significant differences when NAs were asked the same questions with respect to how often these elements were present in their jobs (Table 4, right columns). In 6 of the 11 elements, PACE NAs reported a higher mean frequency than NAs working in nursing homes, and in the remaining 5, there were no significant differences. The largest differences were in "the chance to form close relationships with my patients" (3.47 vs 3.17, p = .001), "the variety in my work" (3.08 vs 2.74, p = .001), and "respect for my suggestions by people who make decisions about patient care" (2.95 vs 2.57, p = .001). Perceptions of "the chance to use my own judgment," "the chance to discuss my patients with other team members," and "respect for my choices in the types of assignments I get" were also significantly higher for the PACE NAs. Each of these elements was significantly positively correlated with job satisfaction in bivariate analysis except for "the chance to discuss my patients with other team members," which had a trend toward a negative association.

We then evaluated differences in job description between the two models, and found no significant difference between the proportion of NAs involved in assisting with activities of daily living, reporting findings on patients, and dealing with behavioral issues. NAs at PACE sites, however, were significantly more likely than their counterparts in nursing homes to escort patients on vans during transportation (either to or from home or to other appointments) and to medical appointments, work in a day health center, spend time charting, and do home chores, meal preparation, laundry, and recreational activities with patients (p < .001 for each).

We evaluated the importance of various work environment factors in nursing homes and PACE sites to see whether NAs in the two models of care had different priorities with respect to job elements (Table 4). There were no significant differences between nursing home and PACE NAs with respect to their ranking of the importance of job elements. As a group, the items that were perceived as being most important were "respect for my suggestions by people who make decisions about patient care," "receiving positive feedback," "getting help from my peers in doing daily tasks," and "the chance to organize my daily workload." All elements surveyed had a mean response greater than 3.0, which was a ranking of "very important."

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**Discussion**

The PACE model is reported to provide cost-effective, high quality care (Eng et al., 1997), but little has been published about whether this is, in fact, the case, and which elements of the model are more effective than more traditional long-term care approaches. This study evaluated the role of an essential caregiver in the provision of long-term care—the nursing assistant—to look at differences in NAs themselves, their job descriptions, their work environments, and how these relate to their job satisfaction in the nursing home and PACE models.

<table>
<thead>
<tr>
<th>Item</th>
<th>Importance of elements</th>
<th>Frequency of elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respect for my suggestions by people who make decisions about patient care</td>
<td>3.56</td>
<td>2.57</td>
</tr>
<tr>
<td>Getting help from my peers in doing daily tasks</td>
<td>3.51</td>
<td>3.00</td>
</tr>
<tr>
<td>The chance to organize my daily workload</td>
<td>3.51</td>
<td>2.97</td>
</tr>
<tr>
<td>Receiving positive feedback</td>
<td>3.50</td>
<td>2.62</td>
</tr>
<tr>
<td>The amount of ongoing inservice training I get</td>
<td>3.38</td>
<td>3.05</td>
</tr>
<tr>
<td>The chance to use my own judgment</td>
<td>3.36</td>
<td>2.85</td>
</tr>
<tr>
<td>The chance to form close relationships with my patients</td>
<td>3.36</td>
<td>3.17</td>
</tr>
<tr>
<td>Being included in team meetings</td>
<td>3.31</td>
<td>2.72</td>
</tr>
<tr>
<td>Respect for my choices in the types of assignments I get</td>
<td>3.26</td>
<td>2.56</td>
</tr>
<tr>
<td>The variety in my work</td>
<td>3.18</td>
<td>2.74</td>
</tr>
<tr>
<td>The chance to discuss my patients with other team members</td>
<td>3.04</td>
<td>2.81</td>
</tr>
</tbody>
</table>

Note: Job priorities "Please rank how important the following items are to you" 1-4, 1 = not important, and 4 = extremely important are compared to work environment factors "Please rank how often the following items are present in your job" 1-4, 1 = rarely or never, 4 = always or most of the time; Mean rank on scales.
We have demonstrated that there is a higher level of job satisfaction among NAs in PACE than in nursing home settings, and that working in PACE is an independent predictor of NA job satisfaction, even when accounting for many other job characteristics. The mean score on the MSQ was 3.29 in the nursing homes that we surveyed and 3.53 in the PACE programs. By comparison, in Waxman’s survey of eight nursing homes in 1984, the range of scores was 2.70 to 3.31 (Waxman et al., 1984). Although there was some overlap in the scores for the nursing homes that we surveyed with those published by Waxman, the job satisfaction among our nursing home NAs was slightly higher. This may reflect the nursing homes that we chose, or it may suggest some improvement in job satisfaction at nursing homes in general since Waxman’s results were published. In a recent survey of two nursing homes by Grieshaber and colleagues (1995), average scores were 3.22 and 3.50, supporting this explanation. It is striking, though, that the lowest ranked PACE site ranked higher than any of the nursing homes surveyed by Waxman and colleagues.

The higher level of job satisfaction in the PACE model as compared to the nursing home model seemed to be related to the work environment, or at least perceptions of it, rather than characteristics of the NAs themselves. We found no significant differences between NAs in the two models of care, when compared on demographics, experience, personality, or importance placed on different job elements. This has relevance in terms of how these findings are used to improve job satisfaction in different settings. In other words, it is less important to change recruitment and hiring practices than to analyze and adapt the work environment for providing care.

The concept of staff members working as a team is central to the PACE model. “Respect for my suggestions by people who make decisions about patient care” was an independent predictor of job satisfaction. It was the most highly ranked item by NAs in terms of importance, was seen as being significantly more prevalent by PACE NAs, and was ranked as one of the least prevalent items by nursing home NAs. “The chance to discuss my patients with other team members” was also significantly more prevalent in PACE than in nursing homes, but surprisingly was negatively predictive of job satisfaction. Of the 18 NAs who said that they were either dissatisfied or very dissatisfied with their current job, 15 reported that they discussed patients with their team frequently or always.

The desire for control over time and schedule may be a factor determining job satisfaction. It has been postulated previously to be related to job turnover, and Price (1973) suggested that greater turnover exists in organizational systems where decision making is a central rather than a diffused responsibility. The chance to organize daily workload, respect for choices in the types of assignments, and the chance to use personal judgment were all perceived as important elements. The latter two were significantly more prevalent in the PACE model, and the chance to organize the daily workload was independently predictive of job satisfaction. These findings were similar to results of a survey by Caudill and Patrick (Caudill & Patrick, 1989), in which NAs who had input into the planning of care for their patients were slightly more likely to stay at their jobs. In a study by Monahan and McCarthy (1992), subjects liked supervisors who were flexible and listened.

In both the nursing home and the PACE model, care is being provided over a long period of time. There is potentially an opportunity in these settings for staff to develop close relationships with patients. Although this is perceived as an important facet of the job for both caregiver and patient, in this study the prevalence is significantly higher in the PACE model. In the study by Monahan and McCarthy (1992), the opportunity to help and work with people was the primary reason NAs sought their job. In a study by Holtz (1982), 100% of respondents cited interpersonal relationships as important for job satisfaction.

Although more than two thirds of the NAs we surveyed reported regular experience with older adults during their childhood years, reports of childhood experience were negatively correlated with job satisfaction. It may be that these experiences influenced the choice of a job working with older adults, but that the interactions with patients at work did not meet expectations based on previous positive interactions during childhood.

The multivariate regression model accounted for 21% of the variance, so it is clear that there were variables related to job satisfaction that were not measured. One element that was not measured specifically for each subject was wages, which has been shown to be related to job satisfaction (Monahan & McCarthy, 1992). Study participants were asked about their level of satisfaction with “my pay and the amount of work I do,” as part of the MSQ questionnaire. There was no significant difference between NAs in PACE and nursing homes with respect to their response to this question, with 66.5% of nursing home respondents and 52.6% of PACE respondents reporting that they were either dissatisfied or very dissatisfied (p = .11). A comparison of salary ranges gave mixed results as well, with the midpoint in salary ranges for PACE being higher in three of the five sites.

Maximizing job satisfaction in the long-term care setting is important for several reasons. First, a high level of job satisfaction may translate to improved quality of care. Because NAs deliver the majority of hands-on care, their approach to care may have a strong impact on the well-being of patients receiving that care.

Second, higher job satisfaction may lead to lower turnover rates, resulting in a more stable work force. However, this is not always the case (Waxman et al., 1984). People leave jobs for different reasons, both positive (e.g., job opportunities with a chance for greater promotion, returning to education) and negative (e.g., dissatisfaction with current situation). Although there was higher job satisfaction in PACE, 49.5% of nursing home and 52.2% of PACE NAs stated that they were either likely or very likely to leave their job in the next year. On the other hand, in four of the five sites, actual turnover rates were higher in nursing homes than in PACE settings. We did not ask those who were
likely to leave why this was the case. Because job turnover is an important element in terms of promoting continuity and quality of care, as well as managing resources (both human and capital) effectively, this would be an important area to study in more depth in the future.

It may be that by choosing sites that were interested in participating in the study, we inadvertently chose sites with directors who were more interested in this topic and thus had already put into place mechanisms to improve the job satisfaction of their staff members. However, there was a high level of interest even among sites that were not chosen for the study, and there was a similar level of interest expressed from the nursing home administrators involved in the study as well, so it is unlikely that site interest in the study significantly biased the results.

As in previous studies investigating the role of NAs, this study is limited by our ability to recruit subjects. However, our recruitment rates were comparable to previous studies on NAs, which ranged from 41–68%. (Foner, 1994; Greshaber et al., 1995; Helmer, Olson, & Heim, 1993; Waxman et al., 1984) Also, because recruitment was higher in the PACE group, and one might predict that those who were less satisfied would be less likely to respond to the survey, it is likely that the difference between the PACE and nursing home models was underestimated, if anything.

In summary, NAs in the PACE model of care reported greater job satisfaction than NAs providing care in the traditional nursing home model. Several elements in the PACE approach might be utilized to improve job satisfaction in other long-term care settings. The outcomes presented here have important implications for nursing home administrators and directors of nursing in their management of NAs. Future studies should investigate whether a prospective intervention can improve job satisfaction among NAs in nursing homes, and whether increased job satisfaction translates into improved retention and quality of care.

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Received September 16, 1998
Accepted April 20, 1999