The overall goal of this pilot study was to determine the feasibility of using an ecological model to identify key relationships among and between multiple variables that influence retention of nursing home employees. In response to this goal, our primary research question asked, how effective is a community capacity/ecological approach for identifying factors relevant to retention issues facing long-term care facilities? To respond to this question, four underlying questions were addressed:

1. What individual, family, and community variables are most descriptive of nursing home employees?
2. What are the relationships between individual, family, and community factors and retention-related outcomes (such as job satisfaction and retention intentions)?
3. What relationships exist between individual, family, and community factors and retention itself (direct effects), aside from their relationships with the retention-related outcomes (indirect effects)?
4. What is the relationship between retention-related outcomes and actual retention?

Sample and Procedures

All employees of one long-term care center, who had worked at the center for at least one month, were invited to participate in this study. Study participants were recruited through the use of written announcements distributed with their paychecks. The announcement included information about the purpose of the study, the scheduled times that the survey was being offered, and a description of the incentive (i.e., $25 gift certificate to the local shopping mall). We conducted the initial sessions at various time periods (e.g., shift changes) during a one-week period in December 2001. During this time, 95 of the 117 eligible employees completed the survey for a response rate of 81%.

Findings

Participant Characteristics

Approximately one-third (31%) of participants reported that they had been working at the health care center for at least one year, with 10% indicating they had been there at least 2 years. Conversely, 46% had been at the center for less than 6 months. Eighteen percent (18%) were working in some other position at the center prior to their current position.
The most commonly reported job titles were CNA's or Nurses Aides (39%). About one fourth (25%) were kitchen staff; 14% were either RN’s or LPN’s; 9% were in Housekeeping; 6% were directors or coordinators (e.g., Director of Nursing, Nursing Supervisor, Care Plan Coordinator); and the remaining 6% had other work titles including office staff, security, and maintenance. Most study participants (73%) were full-time employees. Over half (53%) worked day shift, while 31% worked evening shift and 10% worked night shift. The remaining 4% worked more than one shift.

Most participants were female (85%). The vast majority (94%) identified themselves as White or Caucasian; 4% identified themselves as Black or African-American. Participants ranged in age from 16 to 64, with one-half (48%) under the age of 30. Thirty-nine (39%) of the participants had a high school (or GED) level education; 14% had their associate degree and 11% reporting completing a bachelor’s degree.

More than three-fourths (90%) of the participants reported their health was either ‘good’ ‘very good’ or ‘excellent;’ 10% said it was only ‘fair.’ Twenty-two percent (22%) reported that their health difficulties impacted their abilities to do moderate daily activities and 28% had some difficulties climbing several flights of stairs. In addition, just over half (53%) reported that during the previous four weeks pain had interfered with their work both at home and at the health care center. On the positive side, the vast majority (94%) of participants agreed that they felt ‘in charge of their life’ and were ‘quite good at managing the responsibilities of daily life.’ Almost all (97%) reported that their life ‘has been a continuing process of learning, changing, and growth.’

Many of the employees reported that they experienced some worries and difficulties balancing home and work. For example, 21% indicated that their job produces strain that makes it difficult to fulfill family responsibilities. About one-half of the employees (53%) indicated that because of work-related duties, they had to make changes in family plans. Conversely, relatively few appear to be making adjustments in their work due to family issues. For example, only 3% indicated that there are things at work that do not get done due to the demands of family members. Only 5% reported that family strains interfered with their ability to perform job-related responsibilities.

Ecological-Community Capacity Logic Model of Workplace Retention

Based on our conceptual model (see Figure 1), correlations were used to examine the relationships (a) between the three ecological layers and employment status (e.g., employee was still employed or not employed), (b) between the ecological layers and the mediating factors, and (c) between the mediating factors and employment status.

Employment Status Outcome Variable. Among the variables included within the individual, family, and community ecological categories, only interactions with older adults (r = -.19, p < .05) and supervisor support (r = -.19, p < .05) were related to employment status; employees who had more positive attitudes about and experiences working with aging adults and employees who felt supervisors were more supportive were less likely to leave the center. Among the four mediating factors, only retention intentions (r = -.25, p < .01) was related to employment status;
those who reported a stronger intention to stay at the facility, remain employed at the facility nine months after participating in the study. Employees’ self-definition of job competence, their commitment to their job, and their job satisfaction were not directly related to remaining at the center.

Retention-Related Outcome Variables. We found 17 significant relationships between variables in the three ecological categories and the four mediating factors. The majority of the relationships occurred in the community ecological category, followed by the individual, and then the family ecological categories. A summary of the findings is provided in Table 1. In general, the findings show that job satisfaction was associated most strongly with work community capacity, supervisor support, and affinity for co-workers, and job competence was related most to supervisor support. Work community capacity was most highly related to job commitment, and retention intentions were most strongly related to work community capacity and to affinity for co-workers.

Relationship Between Retention-Related Outcomes. As expected, the four retention-related outcomes were interrelated, with correlations ranging from .26 (between retention intentions and job competence) to .57 (between retention intentions and job commitment). The weakest associations were between job competence and the other retention measures, although all correlations were significant (p < .01).

Leavers and Stayers

From January 2002 through April 2003, 46% (71) of the 156 employees who completed the initial survey left the health care center. Compared to employees who remained at the facility, those who left were significantly more likely to report greater job demands \([t(133) = -1.78, p=.08]\), less of a sense of collective competence \([t(151) = -2.53, p < .01]\), and expressed greater intentions to leave their position \([t(152) = -3.09, p < .01]\). Younger employees (age < 40) who left their positions expressed greater commitment to their job \([t(67) = 2.13, p < .01]\), a greater sense of closeness to residents \([t(67) = 1.95, p=.06]\), fewer job demands \([t(67) = 1.89, p=.06]\), and more favorable attitudes toward aging \([t(67) = 2.21, p<.05]\) than older employees who left their jobs. Responses of leavers and stayers did not differ significantly according to position held (e.g., nurses, CNAs, support staff, including dietary and housekeeping employees).
Figure 1: An Ecological-Community Capacity Logic Model of Workplace Retention

ECOLOGICAL LAYERS

Individual:
Age
Health level
Race
Gender
Psychological well-being
Employment aspirations
Related work history
Attitudes toward aging

Family:
Marital status
Family size
Family Supportiveness
Family financial needs
Quality of relationships
Family responsibilities

Community:
Current position/ time in position
Job/position demands
Distance between home and work
Closeness to residents
Feeling appreciated at workplace
Feeling rewarded/benefited at work
Conflict at workplace
Affinity/liking for coworkers
Sense of community/belonging
Cohesion with coworkers
Time spent with coworkers off-site
Sense of shared responsibility
Sense of collective competence

RETENTION-RELATED OUTCOMES

Retention intentions
Job satisfaction
Job competence or “readiness”
Job commitment

COMMUNITY RESULTS

Retention
Table 1. Summary of the Relationships Between Retention-Related Outcomes and the Ecological Variables

<table>
<thead>
<tr>
<th>Retention-Related Outcome</th>
<th>Ecological Layer</th>
<th>Variable</th>
<th>Significant Correlation</th>
<th>Finding</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Job Satisfaction</strong></td>
<td>Family</td>
<td>Number of Children</td>
<td>-.16</td>
<td>More children, less job satisfaction</td>
</tr>
<tr>
<td></td>
<td>Family</td>
<td>Work/Family Conflict</td>
<td>.27</td>
<td>Less work/family conflict, greater job satisfaction</td>
</tr>
<tr>
<td></td>
<td>Community</td>
<td>Affinity for Coworkers</td>
<td>.51</td>
<td>Higher affinity for coworkers, greater job satisfaction</td>
</tr>
<tr>
<td></td>
<td>Community</td>
<td>Work Community Capacity</td>
<td>.54</td>
<td>Stronger sense of community capacity, greater job satisfaction</td>
</tr>
<tr>
<td></td>
<td>Community</td>
<td>Supervisor Support</td>
<td>.49</td>
<td>More positive relationship with supervisor, greater job satisfaction</td>
</tr>
<tr>
<td><strong>Job Competence</strong></td>
<td>Individual</td>
<td>Gender</td>
<td>.19</td>
<td>Men report greater job competence than women</td>
</tr>
<tr>
<td></td>
<td>Family</td>
<td>Work/Family Conflict</td>
<td>.23</td>
<td>Less work-family conflict, less job competence</td>
</tr>
<tr>
<td></td>
<td>Community</td>
<td>Work Community Capacity</td>
<td>.90</td>
<td>Higher work community, capacity report more job competence</td>
</tr>
<tr>
<td></td>
<td>Community</td>
<td>Supervisor Support</td>
<td>.47</td>
<td>More positive relationship with supervisor, greater job competence</td>
</tr>
<tr>
<td><strong>Retention Intentions</strong></td>
<td>Community</td>
<td>Affinity for Coworkers</td>
<td>.37</td>
<td>Feeling closer to coworkers, greater intention of staying</td>
</tr>
<tr>
<td></td>
<td>Community</td>
<td>Work Community Capacity</td>
<td>.27</td>
<td>Greater work capacity, greater intention of staying</td>
</tr>
<tr>
<td></td>
<td>Community</td>
<td>Supervisor Support</td>
<td>.41</td>
<td>More positive relationship with supervisor, greater intention of staying</td>
</tr>
<tr>
<td><strong>Job Commitment</strong></td>
<td>Family</td>
<td>Work/Family Conflict</td>
<td>.31</td>
<td>Greater work-family conflict, less job commitment</td>
</tr>
<tr>
<td></td>
<td>Community</td>
<td>Current/Ideal Job</td>
<td>.18</td>
<td>Better job match, greater job commitment</td>
</tr>
<tr>
<td></td>
<td>Community</td>
<td>Affinity for Coworkers</td>
<td>.42</td>
<td>Feeling closer to coworkers, greater job commitment</td>
</tr>
<tr>
<td></td>
<td>Community</td>
<td>Work Community Capacity</td>
<td>.50</td>
<td>Greater work community, capacity, greater job commitment</td>
</tr>
<tr>
<td></td>
<td>Community</td>
<td>Relationship with Supervisor</td>
<td>.31</td>
<td>More positive relationship with supervisor, greater job commitment</td>
</tr>
</tbody>
</table>