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Enhanced Care Assistant Training to Address the Workforce Crisis in Home Care: Changes Related to Job Satisfaction and Career Commitment

Constance L. Coogle
Virginia Commonwealth University, ccoogle@vcu.edu

Iris A. Parham
Virginia Commonwealth University

Rita Jablonski
Virginia Commonwealth University

Jason A. Rachel
Virginia Commonwealth University

Changes in job satisfaction and career commitment were observed as a consequence of a geriatric case management training program focusing on skills development among personal care attendants in home care. A comparison of pretraining and posttraining scores uncovered a statistically significant increase in Intrinsic Job Satisfaction scores for participants 18–39 years of age, whereas levels declined among the group of middle aged participants and no change was observed among participants age 52 and older. On the other hand, a statistically significant decline in Extrinsic Job Satisfaction was documented over all participants, but this was found to be primarily due to declines among participants 40–51 years of age. When contacted 6–12 months after the training series had concluded, participants indicated that the training substantially increased the likelihood that they would stay in their current jobs and improved their job satisfaction to some extent. A comparison of pretraining and posttraining scores among participants providing follow-up data revealed a statistically significant improvement in levels of Career Resilience. These results are discussed as they relate to similar training models and national data sets, and recommendations are offered for targeting future educational programs designed to address the long-term care workforce shortage.

Keywords: long-term care; employee retention; continuing education; professional development training; workforce shortages

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Constance L. Coogle, PhD
Iris A. Parham, PhD
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Jason A. Rachel, MS

The quality of home care depends on the aides, workers who often are not compensated well and receive limited training (Applebaum & Phillips, 1990; McCallion, Toseland, Lacy, & Banks, 1999). Employers are realizing that they must create higher quality jobs in order to compete successfully for workers (Dawson & Surpin, 2000). Multiple reports have urged policymakers to encourage and assist providers in developing incentives, including career and worker empowerment training, to attract and retain qualified people for these jobs (Brannon, Zinn, Mot, & Davis, 2002; Findley, Biklen, Krause-Barrett, & Richardson, 2000; McKee, Clabby, & Heinlein, 2001; Scanlon, 2001; Stone, 2000; Stone & Wiener, 2001). In addition, there have been a number of national surveys and reports that focus attention on this issue (Institute of Medicine, 2000; U.S. Department of Health and Human Services, 2003; U.S. General Accounting Office, 2001). National awareness of the issue is evident in the calls for the creation of a federal office to address long-term care workforce issues (White House Conference on Aging, 2005). Recent national prominence has also been demonstrated by the establishment of the National Commission for Quality Long-Term Care to identify factors influencing the ability to improve quality of care and make recommendations about efforts that should lead to sustainable quality improvement. An initial report to this body recommends building long-term care workforce improvements into the efforts that are launched (Capitman, Leutz, Bishop, & Casler, 2005). In addition to these efforts and the grant programs being funded at the national level, *Results from the 2005 National Survey of State Initiatives on the Long-Term Care Direct-Care Workforce* (Harmuth & Dyson, 2005) indicates that 10 states nationwide are implementing direct care worker career enhancement or advancement initiatives (Georgia, Iowa, Louisiana, Minnesota, Montana, North Carolina, Pennsylvania, Vermont, and Wyoming). Monetary support for these efforts has derived from a variety of sources, including general revenue reserves or surpluses, case-mix reimbursement policies tied to quality improvement, and civil monetary penalty funds.

The demand for direct care workers in home- and community-based settings is projected to grow even higher than demand for institutionalized settings (Harris-Kojetin, Lipson, Fielding, Kiefer, & Stone, 2004). The U.S. Bureau of Labor Statistics projects a 56% increase in demand for home care and personal care aides and a 61% increase in demand for home health aides between 2002 and 2012 (Hecker, 2004; U.S. Bureau of Labor Statistics, 2004). The Center for Health Workforce Studies (2002) however, reports that precise numbers of workers are elusive for a variety of reasons. For example, independent home care workers hired directly by care recipients are not recorded as employed in that capacity for government data systems. Their numbers are significant, as one national study estimates that 29% of the direct care workers providing assistance to Medicare beneficiaries in the home are self-employed (Leon & Franco, 1998).

Yet there is mounting evidence that employer-provided health insurance is an important factor in recruiting and retaining a competent and motivated direct support workforce within health and human services occupations (see Ebenstein, 2006, for a review of the literature). Between 40% and 45% of all paraprofessional home care workers lack health care coverage, significantly undermining the financial stability of home care workers and their families (Feinberg, Hunt, Dawson, Braunstein, & Cameron, 2004). There are reports of early state-level initiatives to provide access to health care coverage through subsidized premiums for workers with employer-sponsored insurance, assistance in developing employer health insurance purchasing pools, and access to alternative public insurance plans (Feinberg et al., 2004; Paraprofessional Healthcare Institute, 2006b). More recently, a number of nationally funded demonstration projects, including one in Virginia, funded through the Demonstration to Improve the Direct Service Community Workforce grant program under the Centers for Medicare and Medicaid Services have endeavored to collect data about how this issue can be effectively addressed (Paraprofessional Healthcare Institute, 2006a). The obstacles are significant and major challenges such as the part-time nature of direct care work, low wages, and low reimbursement rates must be overcome before our society can ensure that the people we count on to take care of our family members receive the coverage they need to care for their own families (Hams, Herold, Lee, & Worters, 2002).

Regardless of these difficulties, home health care continues to attract providers who prefer to work independently or do private duty for self-paying clients (Luz, 2001). Findings suggest that these workers enjoy being able to choose between full-time or part-time work and there are aspects of the job that might generalize to home care aides who work with agencies as well. Interview responses revealed that they chose the profession as a vocation and did not make decisions about which jobs to take based on working conditions such as wages, but rather in consideration of whether their relationships with clients would make a difference. The importance of work schedule flexibility and personal standards for quality care services was also documented in another study that included home health aides (Kopiec, 2000). In general, it seems that home care is preferred to working in a nursing home setting because there is more time to spend providing care to individual recipients. It is ironic then, that despite a deep commitment and dedication to the work they do, many direct care workers may be forced to leave their jobs because of the lack of health benefits (Hams et al., 2002).

Training, Job Satisfaction, and Job Turnover

While direct care trainees are often exposed to large amounts of information during orientation, they do not necessarily receive specific guidance about how to actually perform the multiple demands of their jobs. It is likely that this has a negative influence on job satisfaction and turnover (Stone & Wiener, 2001). Although the earlier literature reports on some training efforts that focused on specific health care issues (Beck, Ortigara, Mercer, & Shue, 1999; Phillips, Russello, Bonesi, & Garcon, 1997; Timms & Fallat, 1997), continuing education for home care aides has been minimal until very recently. Training programs have characteristically overlooked important content areas. For example, a very recent cross-sectional survey study of direct care staff in nursing homes, in assisted living centers, and providing in-home care in Ohio found that nursing assistants were not learning about time management or how to work well with each other and their supervisors (Ejaz & Noelker, 2006). Other learning needs included content related to caring for clients with mental illness and critical skills such as taking vital signs properly and cardiopulmonary resuscitation.

The relation between job satisfaction and turnover among direct care staff has been established for some time (Waxman, Carner, & Berkenstock, 1984), and continuing education has the potential to increase job satisfaction by promoting the development and use of specialized skills (Maas, Buckwalter, Swanson, & Mobily, 1994). It appears that specialized training can improve the retention of paraprofessional caregiving staff (Grant, Kane, Potthoff, & Ryden, 1996; Konrad & Morgan, 2006), help direct care staff deal with job-related stress (Schonfeld et al., 1999), increase job satisfaction (Braun, Suzuki, Cusick, & Howard-Carhart, 1997), decrease absenteeism (Maas et al., 1994), and reduce burn out (Austrom, 2000). A well-developed training model for direct support professionals is offered on the internet by the College of Direct Support (http://www.collegeofdirectsupport.com); it has been associated with high levels of learner satisfaction (Virginia Department of Mental Health, Mental Retardation, and Substance Abuse Services, 2005). Formal evaluation of the impact of this training is beginning to emerge as evaluation briefs are published (e.g., see http://www.collegeofdirectsupport.com/CDS50/Evaluation%20Brief%20January%202006.pdf) and Sheryl Larson at the University of Minnesota's Research and Training Center on Community Living moves forward with her project to conduct the formative and summative study of the training. But high turnover presents

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challenges to the goal of maintaining a well-trained workforce and can undermine the integrity and viability of training programs. In fact, a snowball effect has been suggested (Grant et al., 1996) when the disruption in training as a consequence of workforce instability contributes, in turn, to even greater turnover (Konrad & Morgan, 2006). This article reports on the changes in job satisfaction and career commitment that were observed as a consequence of a geriatric case management training program offered to personal care attendants providing services under a Medicaid waiver program.

METHODS

The Enhanced Care Assistant Training (ECAT) curriculum included content to improve problem-solving, communication, and stress management skills, but we also added value to the ECAT by encouraging the application of learning by including work-based homework assignments between training sessions (Rachel, Young, Coogle, & Parham, 2004). This novel component of the model was designed to foster application of the training in the work-based setting. Borrowing from an evaluation technique promoted for use by the Geriatric Education Centers nationally (Janet Frank, personal communication, June 9, 1998), the progressive development and execution of Personal Action Plans (PAPs) was designed to facilitate the accomplishment of curriculum-based outcomes in the workplace. Because participants were asked to share their learning experiences with supervisors and other home care workers in their agency, the PAP process was expected to promote continued peer mentoring and enhanced administrative support.

The training series was conducted twice. During the first year of the grant the training utilized a network of real-time compressed videoconferencing broadcasts to six satellite sites statewide. Then, during the second grant year, videotaped sessions from the first year were broadcast to the different sites via satellite transmission, with individual site monitors at each site. Site coordinators were selected based on their experiences in home or long-term care as well as their abilities as trainers of nurse aides.

The 40-hour curriculum consisted of four 7-hour training modules and 12 hours of self-study in the PAP process. The first training module, *Talking the Talk: Ways to Smooth Out Problems Without Getting Into More Trouble,* focused on communication challenges, professionalism, and working with difficult families. Participants created a PAP comprised of two goals based on the objectives of the module, with corresponding tasks and timelines. The second module, *Mind, Body, & Soul: Challenges of Caring for Clients with Cognitive, Sexual, and Spiritual Needs,* was intended to improve the skills required to recognize and meet the multiple needs of clients. The content was designed to help personal care attendants recognize the complex needs of older adults, devise strategies to meet those needs, and make referrals as appropriate. Participants completed a new PAP and were asked to report on the completion of the PAP developed and executed in connection with the first module. They were also instructed to engage in peer mentoring by sharing their progress with a coworker. For the third training module, *It's OK to Become Attached to Your Clients: Dealing with Loss, Death, and Mourning,* participants learned about the multiple losses experienced by older adults and acquired new strategies for helping others cope with death. They were also instructed on ways to better manage the losses they experience as caregivers working with older and disabled clients. Between the third and fourth training sessions, participants were asked to develop a third PAP, share their progress on the previous PAP with a coworker at the agency, and seek administrative support by reporting to their supervisor on the overall progress. The final training module, *Avoiding Burnout: Caring for Others by Caring for Ourselves,* was designed to help participants recognize and avoid worker burnout or lessen its impact. Upon completion of this module, a fourth PAP was developed and home care workers were encouraged to continue with the action planning procedure to further develop their job-related competencies.

Preliminary qualitative analysis of the content produced through the PAP exercises completed during the first year of training resulted in three emergent goal-related categories: work setting, clients, and self (Rachel, Young, Coogle, Welleford, et al., 2004). Goals related to the work setting included actions for improving professionalism, communication, and teamwork. Client-related goals concerned developing better relations and healthcare outcomes, while self concerns were manifested in a focus on anger and stress management.

Instrumentation

Evaluation measures documented the achievement of curriculum objectives and the impact of training on work-related constructs. When training participants attended the first session, they were asked to complete a paper-and-pencil questionnaire that asked for demographic and related data (e.g., experience working with older persons, formal training in gerontology or geriatrics, and formal and informal Alzheimer's patient caregiving histories).

At this session, as well as at the conclusion of the last training session, participants were also asked to respond to a short form of the Minnesota Satisfaction Questionnaire (MSQ) in order to measure job satisfaction with specific aspects of their work and work environment (Weiss, Dawis, England, & Lofquist, 1967). The scale contains 20 statements related to pay, work environment, and management style. It employs a five-point Likert-type scale (1 = very dissatisfied; 2 = dissatisfied; 3 = neutral; 4 = satisfied; 5 = very satisfied), so that higher scores indicate a higher level of job satisfaction. The MSQ is composed of two subscales. The Intrinsic (or Job Content) Satisfaction subscale is related to achievement, recognition, responsibility, and nature of the work. It measures feelings of satisfaction associated with such items as "the chance to do things for other people," "the freedom to use my own judgment," and "the feeling of accomplishment I get from the job." The Extrinsic (or Job Context) Satisfaction subscale probes aspects related to type

of supervision, company policy, administrative style, interpersonal relations, working conditions, and salary. Sample items include "the praise I get for doing a good job," "the chances for advancement on this job," and "my pay and the amount of work I do." The MSQ has been shown to be a reliable instrument (Weiss et al., 1967) that also meets validity criteria (Gillet & Schwab, 1975). It was used successfully in two early studies to measure job satisfaction among nursing assistants (Grieshaber, Parker, & Deering, 1995; Waxman et al., 1984).

At the first and last training sessions, participants also completed the 12-item Career Commitment Measure (CCM) (Carson & Bedeian, 1994). This instrument assesses three dimensions of Career Commitment: Career Identity, Career Planning and Career Resilience. The Career Identity subscale is related to establishing a close emotional association with one's career. Career Resilience refers to resisting career disruption in the face of adversity, and Career Planning represents a person's orientation to processes such as determining developmental needs and setting career goals. In addition, the CCM yields a composite score of total motivation to work in a chosen vocation. With Cronbach's Coefficient Alpha reliabilities ranging from 0.79 to 0.85, the CCM has detected differences in career commitment levels associated with varying degrees of professionalism across occupational groups. Results derived from factor analysis of the CCM scale items support its discriminant validity, and an analysis of correlate relations generally supports the construct validity.

In the 6–12 month period subsequent to the ECAT training each year, participants were mailed a two-page follow-up survey that asked them to tell us about how the training influenced job retention, as well as their abilities to perform specific job-related tasks and deal with their responsibilities as home care providers using a Likert-type scale that was anchored at the extremes (1 = not at all and 5 = a great deal). Another Likert-type scale (1 = much worse, 2 = slightly worse, 3 = no change, 4 = slightly better, 5 = much better) provided information about how their work situations had changed as a consequence of the training received.

Missing Data

Observations were not included in the analyses if data were missing; however, when individuals failed to respond to one or two items on the MSQ or CCM total or subscales, scores were imputed using the sample mean. For the pretraining and posttraining total MSQ variable, imputation was performed for six and four of the observations, respectively. For the Extrinsic Satisfaction subscale, two observations required imputation for the pretraining score, while all respondents had values for all of the posttraining items. On the pretraining and posttraining Intrinsic Satisfaction scores, imputation was performed, respectively, for three and two observations. For the pretraining total CCM variable, imputation was performed on one observation and no adjustment was required on the posttraining CCM variable. Imputation was similarly unnecessary for any of the CCM subscales, either before or after the training.

RESULTS

Comparability of Year 1 and Year 2 Data

Prior to combining the data collected from Year 1 (n = 108) and Year 2 (n = 122), the two groups of participants were compared. Although the groups were comparable with respect to gender, $p < .05$, they differed in terms of ethnic origin, $\chi^2(1) = 9.39$, $p < .05$. Although slightly more than half (52.8%) of the Year 1 participants were Whites, about two thirds (67.2%) of the Year 2 participants were non-Whites. There were no other demographic differences distinguishing the two groups of participants ($p > .05$), although there was some difference in their previous participation in geriatrics or gerontology training, $\chi^2(1) = 3.89$, $p < .05$. More than two thirds of participants in the first year of training (65.7%) had previously acquired some formal training (typically conferences, workshops, or other continuing education program in aging), but this proportion dropped to 52.9% for participants in the second year. Notably, there were no differences with respect to age, length of current employment, or scores on the MSQ.

Similar analyses were conducted using just the 91 participants who responded to the follow-up survey (n = 45 and 42, respectively, for Years 1 and 2). No statistically significant differences were found to distinguish between the participants from each of the 2 years of data collection ($p > .05$). Notably, there were no differences with respect to the training effects on job retention or the CCM subscale of Career Resilience.

Description of Training Participants

Participants were drawn from 60 different home care agencies, and the vast majority (98.3%) was female. The average age was 45.51 years (SD = 12.63). Slightly more than half (52.6%) were African American, and Whites accounted for 42.2% of those trained. Participants ranged in age from 20 to 70 years (M = 45.51; SD = 12.63). More than two thirds of participants (68.7%) were certified as nurse aides, and 58.3% had received some formal training in the area of geriatrics or gerontology previously. About one third (33.5%) had attended aging-related conferences, workshops, or other continuing education programs in the field, and 20.9% had participated in training about Alzheimer's disease. Only 48% were employed full time (40 or more hours/week) in their current positions. They had been employed in their current positions for a number of years (M = 5.37, SD = 5.262) and had devoted a considerable portion of their lives to working in their current career field (M = 10.48, SD = 8.60). Nearly all of the trainers (91.1%) worked predominantly with people age 60 or older, and they had been doing so for an average of 9.93 years (SD = 8.03), yet almost 10% provided care to younger clients with disabilities.

The majority of providers (67.1%) were not currently paid to provide direct care to someone with Alzheimer's disease, although about one third of those not currently serving Alzheimer's clients (33.1%) had been direct providers of Alzheimer's care in the past. In addition, to any Alzheimer's care they might provide at work,

trainees were also asked to tell us if they considered themselves to be the primary caregiver for a friend or relative with Alzheimer's disease. More than one third of all participants (35.3%) were currently informal caregivers with primary responsibility for a friend or relative with Alzheimer's disease. Of the remaining two thirds who were not also providing informal Alzheimer's care, almost one quarter (23.7%) had done so in the past.

Interestingly, 42.7% participants indicated that they definitely anticipated having an emphasis on gerontology over the course of their careers, and 33.8% responded that it was something they expected to some extent. Similarly, 58.3% indicated that opportunities to work in the field of gerontology would definitely have a positive influence on their future employment choices, and another 23.1% agreed that it would have some positive effect on their decisions.

Comparison of Pretraining and Posttraining Job Satisfaction and Career Commitment

A statistically significant decline in Extrinsic Job Satisfaction was documented when participants' scores were compared before (M = 22.78, SD = 4.73) and after (M = 21.99, SD = 5.00) the training, $t(227) = -2.20$, $p < .05$. There were no significant changes in scores from the time of pretesting to the time of posttesting on the Intrinsic Job Satisfaction subscale or the total MSQ scale ($p > .05$). Analyses of change with respect to the CCM total and subscales scores also failed to produce statistically significant results ($p > .05$).

To further explore the decline in Extrinsic Job Satisfaction, participants were divided into three groups of approximately equal size based on their age. Ages ranged from 18–39 years in the youngest group (n = 72; 31.3%), and the average age was 30.26 years (SD = 6.40). For the oldest group of participants (n = 80; 34.8%), ages ranged from 52–73 years with an average age of 58.79 years (SD = 4.83). Ages ranged from 40–51 years in the middle group (n = 78; 33.9%), and the average age was 45.97 years (SD = 3.43).

Analyses of Covariance (ANCOVAs) and Least Squares Difference post hoc comparison tests were conducted to investigate differences between age groups in posttraining levels of job satisfaction after controlling for any pretraining differences. Although there were no statistically changes with respect to the CCM scores, the training had a differential effect on the groups of participants for each of the MSQ constructs. Table 1 shows the pretraining and posttraining job satisfaction levels for each age group.

Participants in the youngest age group (LSM = 84.32, SE = 1.50) had higher adjusted total MSQ scores than either the middle age (LSM = 77.93, SE = 1.47) or older age group (LSM = 80.11, SE = 1.46) on the total MSQ scale, $F(2, 217) = 4.78$, $p < .01$. This result was confirmed by one-way Analyses of Variance (ANOVA) indicating that the groups did not differ significantly prior to training ($p > .05$), although statistically significant differences in posttraining scores were obtained, $F(1, 218) = 3.80$, $p < .05$. Dependent t-tests performed for each group separately showed a statistically significant decline in total MSQ scores among participants in the middle age group, $t(74) = 2.76$, $p < .01$. The comparison of pretraining and posttraining means for the other two groups did not result in statistically significant changes ($p > .05$).

The ANCOVA comparing age groups in terms of their Extrinsic Job Satisfaction scores approached statistical significance, $F(2, 224) = 2.99$, $p = .052$. The younger participants (LSM = 23.08, SE = 0.54) were found to have higher adjusted scores after the training than the older participants (LSM = 21.37, SE = 0.51) when the Least Squares Difference post hoc comparison tests were examined ($p < .05$). This difference was also demonstrated by the one-way ANOVA comparing unadjusted mean scores after the training, $F(2, 225) = 3.20$, $p < .05$. There were no statistically significant differences prior to training ($p > .05$). Similar to the changes observed with the examination of total MSQ scores, the pair-wise t-tests comparing pretraining and posttraining scores on the Extrinsic Job Satisfaction subscale revealed a statistically significant decline in scores among participants in the middle age group, $t(76) = 2.18$, $p < .05$. There were no statistically significant changes for the other two groups ($p > .05$).

Examining group changes with respect to the Intrinsic Job Satisfaction construct indicated a statistically significant difference between the age groups after the training, $F(2, 222) = 3.75$, $p < .05$. After controlling for pretraining differences, the younger

TABLE 1. Time-Lag Comparison of Scores on Job Satisfaction Variables by Age Group

		Mean (Standard Deviation)		
Job Satisfaction Variables		Age 18-39	Age 40-51	Age 52+
Total Job Satisfaction scale	Pretraining	81.96 (13.73)	83.62 (9.79)	81.49 (13.20)
	Posttraining	84.19 (8.53)	78.34 (14.95)	79.82 (15.08)
Intrinsic Job Satisfaction subscale	Pretraining	50.88 (8.16)	52.20 (5.10)	50.43 (8.61)
	Posttraining	52.69 (4.68)	49.45 (9.86)	50.32 (8.80)
Extrinsic Job Satisfaction subscale	Pretraining	23.06 (5.10)	22.86 (4.36)	22.45 (4.77)
	Posttraining	23.20 (4.25)	21.66 (4.70)	21.24 (5.75)

participants (*LSM* = 52.76, *SE* = 0.94) scored higher than those in the middle age group (*LSM* = 49.21, *SE* = 0.91). One-way ANOVAs confirmed the posttraining group difference, $F(2, 223) = 3.12$, $p < .05$. There were no statistically significant pretraining differences ($p > .05$). Dependent *t*-tests indicated that there was a statistically significant increase in Intrinsic Satisfaction scores for the group of younger participants, $t(71) = -2.16$, $p < .05$. A statistically significant decrease was observed for the group of middle age participants, $t(76) = 2.20$, $p < .05$. Scores for the older group of participant did not change ($p > .05$).

Analysis of Follow-Up Data

Data were collected from 91 ECAT participants who were contacted 6–12 months after the training had concluded (return rate = 53.22%). A comparison of those who did and did not respond to the follow-up survey indicated no differences in gender or age, although the two groups differed in terms of ethnic origin, $\chi^2(1) = 12.95$, $p < .001$. Slightly more than half (56.0%) of those who participated in the follow up were White, about two thirds (66.0%) of those who didn't respond to the follow-up survey were non-White. There were no other demographic differences distinguishing the two groups ($p > .05$), although there was some difference in their previous participation in geriatrics or gerontology training, $\chi^2(1) = 8.67$, $p < .005$. More than two thirds of those who responded to the follow-up survey (67.8%) had previously acquired some formal training (typically conferences, workshops, or other continuing education program in aging), but this proportion dropped to 49.3% for participants who did not respond to the follow-up survey.

Results indicated that the training had substantially increased the likelihood that workers would stay in their current jobs (*M* = 4.02, *SD* = 1.02). Only one-quarter of participants responding to the follow-up survey (28.6%) had considered leaving their current job in the last 6 months. Results also indicated that, in general, the training was an influential factor in helping participants do their jobs (*M* = 4.24; *SD* = 0.71). The consequences of the training with respect to the job-related abilities investigated are given in Table 2. The ability to show respect for the clients and understand their quality of life was greatly facilitated by the training. There was also substantial influence on the participants' recognition of the rewards inherent in their jobs. Items related to dealing with stress, and especially the ability to rely on others to alleviate job stress, were not so highly rated.

It appeared that the ECAT intervention had improved levels of job satisfaction to some extent (*M* = 3.84, *SD* = 1.00). Changes with respect to other aspects of the work situation as a consequence of training are shown in Table 3. Average responses for individual items indicated some level of improvement, although the questions related to opportunities for advancement and work assignments that use one's abilities tended to be less affected by the training.

Data analyses were also performed to examine changes in the CCM and MSQ constructs among participants who provided follow-up data. A comparison of Career Resilience levels before (*M* = 2.94, *SD* = 1.08) and immediately after (*M* = 3.22, *SD* = 1.13) the training revealed a statistically significant improvement, $t(81) = -2.12$, $p < .05$. There were no significant changes in scores from the time of pretesting to the time of posttesting on any of the other CCM (or MSQ) subscales, nor were any differences noted with respect to the total CCM or MSQ scale scores ($p > .05$).

TABLE 2. Influence of Training on Specific Job-Related Tasks and Responsibilities

Task or Responsibility	Mean	Standard Deviation
To show respect for the clients	4.49	0.66
To recognize neglect in the home	4.34	0.88
To understand your client's quality of life	4.33	0.74
To provide for the client's spiritual needs	4.33	0.78
To use appropriate communication skills	4.31	0.70
To care for your physical, psychological, and social self	4.25	0.90
To understand or handle the dying and grieving processes	4.24	0.92
To handle difficult behaviors in clients	4.23	0.91
To recognize the rewards of your job	4.19	0.79
To use problem-solving techniques	4.10	0.84
To cope with on-the-job stress	3.98	0.88
To reduce the amount of stress you feel regarding your job	3.90	0.90
To address the factors that impact your client's sexuality	3.90	1.01
To rely on others to help with your stress	3.67	1.08

TABLE 3. Changes in the Work Situation as a Consequence of Training

Work Situation	Mean	Standard Deviation
Making a difference in how clients are cared for	4.22	0.83
Communication and cooperation with family members	4.05	0.87
Resolution of complaints and grievances	3.91	0.83
Opportunities to contribute my ideas to client care plans	4.00	0.94
Functioning as part of a team to care for clients	3.97	0.96
Amount of feedback from clients and families about how I do my job	3.91	0.96
Communication and cooperation with supervisor	3.81	0.94
My supervisor treating me with respect	3.87	0.99
Having work assignments that best use my abilities	3.76	0.99
Opportunities for advancement	3.39	0.87

DISCUSSION

The ECAT initiative was not conceived as career advancement training, per se, and it does not constitute a career ladder mechanism leading to further formal nurse certification. It may be regarded along with career lattice programs being pursued in other states, such as the Geriatric Nurse Aide curriculum in North Carolina (Harmuth & Goodman, 2004) that allows certified nurse aides to specialize in a particular clinical area such as behavioral management or wound care. Although the career-enhancing aspect of the ECAT instruction is more aligned with the training offered to direct support professionals who serve people with developmental disabilities through the College of Direct Support, the focus on home care agency providers makes it more analogous to the kind of specialty training recommended for this specific segment of the direct care workforce through the establishment of home health cooperatives in Montana (Windecker, 2005). The intention to enhance geriatric case management is the singular characteristic that distinguishes the ECAT. By strengthening the training and support available, however, each of these models addresses the factors that often result in worker frustration and turnover.

Analyses of national secondary data sets have determined that work conditions are still poorer for home care aides than for other types of aides (Montgomery, Holley, Deichert, & Kosloski, 2005; Yamada, 2002). The National Commission on Nursing Workforce for Long-Term Care (2005) recommends that providers offer opportunities for the direct-care nursing workforce to grow professionally. National surveys and studies have documented the career ladder and other initiatives implemented by different states to address aide recruitment and retention. One of the most comprehensive was released from the National Center for Health Workforce Information and Analysis in the Health Resources and Services Administration's Bureau of Health Professions (Wing, Langelier, Yamada, Poonthota, & Kumar, 2004). The report advocates for data-driven modifications in workforce training programs and concludes that effective planning will depend on better data about state-level training programs and career ladders. The authors cite fieldwork (interview and focus group) results in four states demonstrating that many organizations are interested in further opportunities for training. There is evidence that long-term care providers and state officials unanimously agree that career ladders are important for retention. The report further contends that education will ultimately be a part of any long-term care workforce solution, since the changes that are necessary in workforce training will require modifications to the existing educational programs. In specifying the factors that can influence the supply and demand for long-term care paraprofessionals, the report cites current discussions around the theme of developing better career tracks to help recruitment efforts and care models that emphasize humanistic, patient-centered care.

Unlike nursing assistants in institutional settings, the home care aide is in an individual setting without the support of easily accessible peers or staff. Although supportive leadership or systematic clinical supervision has been found to have potential as an important component of aide satisfaction (Buelow, Winburn, & Hutcherson, 1999; Olsson, Bjorkhem, & Hallberg, 1998), these concepts have not been widely applied in home care services. Because of this relative independence, educational opportunities that reinforce the connection between provider and supervisor or provider and coworker are ideal. Although our data clearly indicated that there was a decrease in Extrinsic Job Satisfaction, this was found to be a differential outcome related to the age of participants. In many respects, the group of ECAT trainees demographically resembled the national samples described in other studies (Crown, Ahlburg, & MacAdam, 1995; Montgomery et al., 2005; Yamada, 2002). Approximately one third of trainees were 52 years of age or older and the cutoff

for younger participants had to be raised to 40 years of age in order to create a comparably sized group. The decrease in Extrinsic Job Satisfaction was clearly related to declines among those age 40–51 years of age. An examination of posttraining scores revealed that levels of Extrinsic Job Satisfaction among younger trainees were significantly higher than for those in the older age group. Those in the middle age group also exhibited declines in Intrinsic Job Satisfaction as well as with respect to the total MSQ variable. Younger participants also score higher on the Intrinsic Job Satisfaction and total MSQ variable in comparison with those in the middle age group. In fact, the younger participants exhibited a statistically significant increase in Intrinsic Satisfaction.

There is no doubt that the influence of training had different effects among participants of different ages. The training succeeded in enhancing levels of satisfaction with the extent of recognition and responsibility available. Focusing on what they could achieve and the nature of their work as home care providers, trainees younger than 40 years were energized by the training experience and were more positively oriented toward their careers. In terms of what the constructs represent, those who were age 40–51 years became less satisfied with some of the administrative aspects and tangible working conditions of their jobs as a consequence of the training. It is possible that the training led to increased frustration among these participants when newly learned enlightened practices could not be applied due to organizational barriers and bureaucratic inefficiency.

Although the ECAT training emphasized recognition, respect, and responsibility, these are not values that are naturally inherent to the home health care environment. The older participants may have had previous experiences leading them to believe that the application of new knowledge or innovative practices would be neither recognized nor rewarded. For example, although part of the training focused on the concept of health care teams and we have had great success in promoting this model in other arenas (Coogle, Parham, Cotter, Welleford, & Netting, 2005), it was much more of a challenge to promote that idea in the current project. The institutional dynamics that work against the provision of quality care in nursing home and assisted living facilities are exaggerated when care is provided in the home. Because providers are more isolated and largely left to their own devices in the community, there is less opportunity for mutual encouragement and care coordination. To compensate, agencies need to break through the attitudes and prohibitions that have tended to discourage acknowledgement of the value that direct support professionals with advanced training can add to the routine provision of care. When the goal of enhanced professionalism is fully adopted, agencies will actively search for ways to validate the sense of vocational commitment that brought many direct care providers to their jobs initially and perhaps recover that orientation among those who have been discouraged from maintaining that value base through the years. In this way professionalism will be elevated through knowledge, training, and, most importantly, adequate compensation.

Interpretation of the follow-up data is limited for several reasons. Only half of those surveyed responded, and the resulting sample differed from the larger group of trainees in terms of ethnic makeup and previous training. In addition, the interpretation of self-reported training consequences should be viewed cautiously due to the likelihood of a response bias. Nevertheless, there was evidence of improved retention and job satisfaction. The ability of the training to address difficulties with job stress, on the other hand, was not so robust. Although modifications in the work situation was not a particular focus of the training, it was gratifying to document changes in some of those areas as well.

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On the other hand, the overall increase in scores on the Career Resilience subscale of the CCM among participants who provided follow-up data goes beyond the reliance on simple endorsements of the training. This result is truly indicative of a positive influence on the abilities of participants to resist career disruption in the face of adversity. Among these trainees at least, it appears that the ECAT training curriculum has the potential for enhancing this aspect of career commitment. This result adds to a similar finding documented as part of the Win a Step Up program for nursing assistants in North Carolina's nursing homes (Konrad & Morgan, 2006). A comparison of those who did and did not participate in this 33-hour training curriculum that focuses on clinical and interpersonal topics indicated that the program strengthened perceptions of care work as a career, rather than just a job.

It appears that younger personal care attendants may be more responsive to the training's ability to enhance job satisfaction. For these participants, the training can build self-esteem and open horizons for greater job commitment. For middle-aged employees, as well as for older workers to some extent, the differential impact of the training may actually exacerbate feelings of disaffection for the position. Especially among the older personal care attendants, the perceived lack of opportunities for advancement and the persistence of well-worn battle scars might be contributing to an unintended backlash that seems to make this kind of training inadvisable. Our data suggest that training initiatives intended to address direct care workforce shortages will be more immediately successful with those 18–39 years of age and that continuing education booster sessions across the course of their careers are an

important adjunct to combat middle-aged burnout. It also suggests an advantage to developing curricula that expand beyond a focus on clinical skills development to include topics of practical value that also enhance professionalism, such as coping strategies and optimal team functioning.

These findings can be interpreted within the context of the lifespan theory of control and its action-phase model of developmental regulation (Heckhausen & Schulz, 1995; Schulz & Heckhausen, 1996). This theoretical and empirical framework hypothesizes that there are age-graded control processes that regulate goal attainment. The motivational regulation of goal-directed action is modulated by vocational opportunities, as well as goal-engagement and disengagement strategies, and these can optimize motivational investment in different action phases (Heckhausen, 2005). The emotional turmoil resulting from failure to attain chosen goals within proscribed developmental deadlines (Wrosch & Heckhausen, 2005) may be exacerbated when vocational opportunities are sharply reduced by the kinds of constraints characteristic of direct care positions that afford little or no chance for professional advancement. In these situations, individuals typically deactivate goal striving and invest in alternative pursuits. But rather than concluding that training for employees in these developmental stages is inadvisable, there is an even greater imperative to provide the possibility for career ladders or lattices.

Some have also questioned the merits of providing training even for younger staff members who will, upon being empowered, contribute to higher turnover. A simple truism has been pronounced in response to these protests, however (Tellis-Nyak, 2005): the fact of the matter is that "staff stability is nurtured in a work climate that encourages professional growth and creativity, respects individuality, and celebrates staff contribution" (p. 5).

REFERENCES

Applebaum, R., & Phillips, P. (1990). Assuring the quality of in-home care: The "other" challenge for long-term care. *The Gerontologist, 30,* 444–450.

Austrom, M. G. (2000). Addressing issues of staff stress and turnover in long-term care. In B. J. Vellas & L. J. Fitten (Eds.), *Research and practice in Alzheimer's disease: Vol. 3* (pp. 329–332). New York: Springer Publishing.

Beck, C., Ortigara, A., Mercer, S., & Shue, V. (1999). Enabling and empowering certified nursing assistants for quality dementia care. *International Journal of Geriatric Psychiatry, 14*(3), 197–211.

Brannon, D., Zinn, J. S., Mot, V., & Davis, J. (2002). An exploration of job, organizational, and environmental factors associated with high and low nursing assistant turnover. *The Gerontologist, 42*(2), 159–168.

Braun, K. L., Suzuki, K. M., Cusick, C. E., & Howard-Carhart, K. (1997). Developing and testing training materials on elder abuse and neglect for nurse aides. *Journal of Elder Abuse and Neglect, 9*(1), 1–15.

Buelow, J. R., Winburn, K., & Hutcherson, J. (1999). Job satisfaction of home care assistants related to managerial practices. *Home Health Care Services Quarterly, 17*(4), 59–71.

Capitman, J., Leutz, W., Bishop, C., & Casler, R. (2005). *Long-term care quality: Historical overview and current initiatives.* Report for the National Commission for Quality Long-Term Care. Retrieved November 6, 2005, from http://www.qualitylongtermcarecommission.org/pdf/txBackground03-10-05FINAL.pdf

Carson, K. D., & Bedeian, A. G. (1994). Career commitment: Construction of a measure and examination of its psychometric properties. *Journal of Vocational Behavior, 44,* 237–262.

Center for Health Workforce Studies. (2002). *The direct care paraprofessional workforce providing LTC services in the US: Data sources and data issues.* Albany: School of Public Health, University at Albany, State University of New York.

Coogle, C. L., Parham, I. A., Cotter, J. J., Welleford, E. A., & Netting, F. E. (2005). A professional development program in geriatric interdisciplinary teaming: Implications for managed care and quality of care. *Journal of Applied Gerontology, 24*(2), 142–159.

Crown, W. H., Ahlburg, D. A., & MacAdam, M. (1995). The demographic, employment characteristics of home care aides, and other workers. *The Gerontologist, 35*(2), 162–170.

Dawson, S. L., & Surpin, R. (2000). The home health aide: Scare resource in a competitive market place. *Care Management Journals, 2*(4), 226–231.

Ebenstein, W. (2006). Health insurance coverage of direct support workers in the developmental disabilities field. *Mental Retardation, 44*(2), 128–134.

Ejaz, F. K., & Noelker, L. S. (2006). *Tailored and ongoing training improve job retention.* Washington, DC: Institute for the Future of Aging Services, American Association of Homes and Services for Aging. Retrieved April 27, 2006, from http:///www.bjbc.org/content/docs/ExecSumary_Ben_Rose_FINALCOLOR9-06.pdf

Feinberg, L. F., Hunt, G., Dawson, S., Braunstein, D., & Cameron, J. M. (2004). *State support for family caregivers and paid home-care workers.* Issue brief from the NGA Center for Best Practices. Washington, DC: National Governor's Association. Retrieved September 14, 2006, from http://www.nga.org/Files/pdf/0406AgingCaregivers.pdf

Findley, D., Biklen, P., Krause-Barrett, H., & Richardson, B. (2000). *Certified nursing assistant recruitment and retention pilot project final report.* Retrieved on November 20, 2002, from http://www.iowacaregivers.org/PDFs/DHSreport.pdf

Gillet, B., & Schwab, D. B. (1975). Convergent and discriminant validities of corresponding job descriptive index and Minnesota satisfaction scales. *Journal of Applied Psychology, 60*(3), 313–317.

Grant, L. A., Kane, R. A., Potthoff, S. J., & Ryden, M. (1996). Staff training and turnover in Alzheimer special care units: Comparisons with non-special care units. *Geriatric Nursing, 17*(6), 278–282.

Grieshaber, L., Parker, P., & Deering, J. (1995). Job satisfaction of nursing assistants in long-term care. *Health Care Supervisor, 13*(4), 18–28.

Hams, M., Herold, N., Lee, M., & Worters, A. (2002). *Health insurance access survey of direct care workers in nursing homes and home-based care agencies in Boston, New Bedford/Fall River.* Bronx, NY: Direct Care Workers Initiative and Paraprofessional Healthcare Institute. Retrieved September 12, 2006, from http://www.directcareclearinghouse.org/download/2005_Nat_Survey_State_Initiatives.pdf

Harmuth, S., & Dyson, S. (2005). *Results of the 2005 National Survey of State Initiatives on the Long-Term Care Direct-Care Workforce.* Report published by the National Clearinghouse on the Direct Care Workforce in the Paraprofessional Healthcare Institute and the Direct

Care Workers Association of North Carolina. Retrieved September 28, 2005, from http://www.directcareclearinghouse.org/download/2005_Nat_Survey_State_Initiatives.pdf

Harmuth, S., & Goodman, J. S. (2004). Developing an adequate and high quality nurse aide workforce in North Carolina. *North Carolina Medical Journal, 65*(2), 101–103.

Harris-Kojetin, L., Lipson, D., Fielding, J., Kiefer, K., & Stone, R. (2004). *Recent findings on frontline long-term care workers: A research synthesis 1999–2003.* Report prepared by the Institute for the Future of Aging Services, Association of Homes and Services for the Aged for the Office of Disability, Aging, and Long-Term Care Policy, Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. Retrieved April 25, 2005, from http://aspe.hhs.gov/daltcp/reports/insight.pdf

Hecker, D. (2004). Occupational employment projections to 2012. *Monthly Labor Review, 127*(2), 80–105.

Heckhausen, J. (2005). Competence and motivation in adulthood and old age: Making the most of changing capacities and resources. In A. J. Elliot & C. S. Dweck (Eds.), *Handbook of competence and motivation* (pp. 240–256). New York: Guilford Publications, Inc.

Heckhausen, J., & Schulz, R. (1995). A life-span theory of control. *Psychological Review, 102,* 284–304.

Institute of Medicine. (2000). *Improving the quality of long-term care.* Washington, DC: National Academy Press.

Konrad, T. R., & Morgan, J. C. (2006). *Step up now for better jobs and better care: The evaluation of a workforce intervention for direct care workers.* Washington, DC: Institute for the Future of Aging Services, American Association of Homes and Services for Aging. Retrieved April 27, 2006, from http://www.bjbc.org/coontent/docs/ExecSummary_UNC_FINALCOLORS9-06.pdf

Kopiec, K. (2000). *The work experiences of certified nursing assistants in New Hampshire.* Concord: The New Hampshire Community Loan Fund.

Leon, J., & Franco, S. (1998). *Home and community-based workforce.* Final report prepared for the Henry J. Kaiser Foundation. Bethesda, MD: Project Hope Center for Health Affairs.

Luz, C.C.M. (2001). Self-employed caregivers: Their motivations, labor conditions, and patterns of decision making related to work selection and tenure (Doctoral dissertation, University of Wisconsin-Milwaukee, 2001). *Dissertation Abstracts International, 62*(03A), 1158.

Maas, M., Buckwalter, K. C, Swanson, E., & Mobily, P. R. (1994). Training key to job satisfaction. *The Journal of Long-Term Care Administration, 22,* 23–26.

McCallion, P., Toseland, R. W., Lacy, D., & Banks, S. (1999). Educating nursing assistants to communicate more effectively with nursing home residents with dementia. *The Gerontologist, 39*(5), 546–558.

McKee, G., Clabby, R., & Heinlein, K. (2001). *State of Wyoming, Department of Health report to the Joint Appropriations Committee on study of nonprofit direct care staff recruitment, retention, and wages.* Retrieved November 11, 2002, from http://ddd.state.wy.us/Documents/wagedoc.htm

Montgomery, R. J., Holley, L., Deichert, J., & Kosloski, K. (2005). A profile of home care workers from the 2000 Census: How it changes what we know. *The Gerontologist, 45*(5), 593–600.

National Commission on Nursing Workforce for Long-Term Care. (2005). *Act now for your tomorrow: Final report of the National Commission on Nursing Workforce for Long-Term Care.* Retrieved August 10, 2005, from http://www.ahce.org/research/workforce_rpt_050519.pdf

Olsson, A., Bjorkhem, K., & Hallberg, I. R. (1998). Systematic clinical supervision of home carers working in the care of demented people who are at home: Structure, content and effect as experienced by participants. *Journal of Nursing Management, 6*(4), 239–246.

Paraprofessional Healthcare Institute. (2006a). *CMS direct service workforce demonstration grants: Overview and discussion of health coverage interventions.* Bronx, NY: Author. Retrieved September 12, 2006, from http://www.hchcw.org/docs/CMS.DSW.Grant.Health.Coverage.Analysis.final_4.5.06.pdf

Paraprofessional Healthcare Institute. (2006b). *Health insurance coverage for the home care sector: Experience from early DirigoChoice enrollment in Maine.* Bronx, NY: Author. Retrieved September 12, 2006, from http://www.directcareclearinghouse.org/download/HealthInsCovMEreport.pdf

Phillips, K. E., Russello, S. M., Bonesi, J., & Garcon, R. (1997). Functional visual problems: Training home care aides to identify early signs. *Caring, 16*(8), 54–56.

Rachel, J. A., Young, K. A., Coogle, C. L., & Parham, I. A. (2004). *A model program for enhanced care assistant training.* Poster session presented at the 25th Annual Meeting of the Southern Gerontological Society, Atlanta, GA.

Rachel, J. A., Young, K. A., Coogle, C. L., Welleford, E. A., Parham, I. A., & Jablonski, R. (2004). Enhanced care assistant training: Encouraging job-related competencies through progressive action planning. *The Gerontologist, 44*(Sp. 1), 205.

Scanlon, W. J. (2001). *Recruitment and retention of nurses and nurse aides is a growing concern.* Testimony before the Committee on Health, Education, Labor and Pensions, U.S. Senate (GAO-01–750T). Washington, DC: U.S. General Accounting Office.

Schulz, R., & Heckhausen, J. (1996). A life-span model of successful aging. *American Psychologist, 51,* 702–714.

Schonfeld, L., Cairl, R., Cohen, D., Neal, K. K., Watson, M. A., & Westerhof, C. (1999). The Florida care college: A training program for long-term care staff working with memory-impaired residents. *Journal of Mental Health and Aging, 5*(2), 187–199.

Stone, R. I. (2000). *Long-term care for the elderly with disabilities: Current policy, emerging trends, and implications for the twenty-first century.* New York: The Millbank Memorial Fund. Retrieved June 25, 2002, from http://www.milbank.org/0008stone/#supply

Stone, R. I., & Wiener, J. M. (2001). *Who will care for us? Addressing the long-term care workforce crisis.* Bronx, NY: Direct Care Clearinghouse, Paraprofessional Healthcare Institute. Retrieved November 9, 2002, from http://www.directcareclearinghouse.org/download/Who_Will_Care_for_Us_Report.pdf

Tellis-Nyak, V. (2005). Who will care for the caregivers? A study shows what directors of nursing like and dislike about their roles. *Health Progress, 86*(6), 1–7. Retrieved December 2, 2005, from http://www.chausa.org/Pub/MainNav/News/HP/Archive/2005/11NovDec/Articles/Special+Section/HP0511G.htm

Timms, J., & Fallat, E. H. (1997). Education and training. Assessing home care aides with Palmore's facts on aging quizzes. *Caring, 16*(11), 58–60.

U.S. Bureau of Labor Statistics. (2004). *Occupations with the largest job growth, 2002–2012.* Washington, DC: U.S. Department of Labor, Bureau of Labor Statistics. Retrieved September 26, 2005, from http://www.bls.gov/emp/emptab4.htm

U.S. Department of Health and Human Services. (2003, May 14). *The future supply of long-term care workers in relation to the aging baby boom generation.* Report to Congress from the Department of Health and Human Services' Office of the Assistant Secretary for Planning and Evaluation, the Centers for Medicare and Medicaid Services, the Health Resource and Services Administration, and the Department of Labor's Office of the Assistant Secretary for Policy, Bureau of Labor Statistics and Employment and Training Administration. Retrieved November 6, 2005, from http://aspe.hhs.gov/daltcp/reports/ltcwork.pdf

U.S. General Accounting Office. (2001, May 17). *Nursing workforce: Recruitment and retention of nurses and nurse aides is a growing concern* (Senate Testimony, Report No. GAO-01–750T). Washington, DC: Author.

Virginia Department of Mental Health, Mental Retardation, and Substance Abuse Services. (2005). *DMHMRSAS College of Direct Support demonstration program: Final report.* Prepared by the Virginia Department of Mental Health, Mental Retardation, and Substance Abuse Services, Office of Human Resource Management and Development, Workforce Development. Retrieved November 4, 2005, from http://www.collegeofdirectsupport.com/CDS50/va.doc

Waxman, H. M., Carner, E. A., & Berkenstock, G. (1984). Job turnover and job satisfaction among nursing home aides. *The Gerontologist, 24,* 503–509.

Weiss, D. J., Dawis, R. V., England, G. W., & Lofquist, L. H. (1967). *Manual for the Minnesota satisfaction questionnaire* (Minnesota Studies in Vocational Rehabilitation: XXII). Minneapolis/St. Paul: University of Minnesota, Industrial Relations Center.

White House Conference on Aging. (2005). *Establishing a comprehensive national long-term care policy.* Final report and recommendations by the Mini-Conference on Long-Term Care. Washington, DC: Author. Retrieved September 12, 2006, from http://www.whcoa.gov/about/policy/meetings/mini_conf/final_report_dc_04_05.pdf

Windecker, M. K. (2005). *The pulse of the health care workforce in Western Montana.* Report created in cooperation with the Montana Community Development Corporation, Missoula Job Service, Missoula College of Technology, Missoula County Public Schools Dickinson Lifelong Learning Center, and Saint Patrick Hospital. Retrieved October 31, 2005, from http://jsd.dli.state.mt.us/local/missoula/hlthcrrprt.pdf

Wing, P., Langelier, M., Yamada, Y., Poonthota, A., & Kumar, P. (2004, February). *Nursing aides, home health aides, and related health care occupations: National and local workforce shortages and associated data needs.* Rockville, MD: Bureau of Health Professions, National Center for Health Workforce Information and Analysis, Health Resources and Services Administration, DHHS. Retrieved November, 9, 2004, from ftp://ftp.hrsa.gov/bhpr/nationalcenter/RNandHomeAides.pdf.

Wrosch, C., & Heckhausen. J. (2005). Being on-time or off-time: Developmental deadlines for regulating one's own development. In A.-N. Perret-Clermont (Ed.), *Thinking time: A multidisciplinary perspective on time* (pp. 110–123). Ashland, OH: Hogrefe & Huber Publishers.

Yamada, Y. (2002). Profile of home care aides, nursing home aides, and hospital aides: Historical changes and data recommendations. *The Gerontologist, 42,* 199–206.

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Correspondence regarding this article should be directed to Constance L. Coogle, PhD, Virginia Center on Aging, Virginia Commonwealth University Medical Center, P.O. Box 980229, Richmond, VA 23298–0229. E-mail: clcoogle@vcu.edu