Certified nursing assistants' satisfaction with education and training programs in long-term care facilities: A Massachusetts study

Sheila Kenny Morin

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CERTIFIED NURSING ASSISTANTS' SATISFACTION WITH EDUCATION AND TRAINING PROGRAMS IN LONG-TERM CARE FACILITIES:
A MASSACHUSETTS STUDY

A Thesis
Presented to the
Faculty of
California State University,
San Bernadino

In Partial Fulfillment of the Requirements for the Degree Master of Science in Health Services Administration

by
Sheila Kenny Morin
June 1994
CERTIFIED NURSING ASSISTANTS' SATISFACTION
WITH EDUCATION AND TRAINING PROGRAMS
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Approved by:

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ABSTRACT

In 1987, federal law mandated that all nursing assistants take a 75-hour education and training program followed by a competency examination. The purpose of this study was to evaluate how satisfied certified nursing assistants (CNAs) are with these education and training programs. A total of 25 long-term care facilities in Massachusetts who offer CNA programs were surveyed by mail. Companion surveys were sent to all 1993 graduates listed on the state registry, a total of 423 CNAs. Major findings of this study included the following. 1) Overall CNAs were satisfied with their education and training programs. Each of the 13 content areas of the programs were found to have positive linear relationships, level of significance (p<.1), with both job preparation and examination preparation satisfaction. 2) Satisfaction with the program relating to job preparation, exam preparation, teachers for the program, and the facility where the program was attended, were all found to be positively related, level of significance (p<.1). 3) The number of laboratory hours in the program had a positive linear relationship, level of significance (p<.1), with satisfaction with job preparation. 4) Overall satisfaction scores differed between subpopulations by sex, age, language, present work situation and future plans. Conclusions drawn from this study were that program curriculum, teachers, the facility, and personal characteristics all relate to satisfaction.
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DEFINITIONS OF TERMS

Activities of Daily Living (ADLs) Refers to the basic everyday processes of care and hygiene, such as bathing and dressing. A major part of the nursing assistant’s role is to assist residents with ADLs.

Ability The appropriate application of knowledge in performance of skills by a nursing assistant.

Agency Refers to the organization which administers the state licensure of nursing assistants.

Certified Nursing Assistant (CNA) An individual providing nursing care or nursing related services under the supervision of an RN to patients or residents. This individual has passed the certification requirements for CNAs set by the state where the license is issued.

Classroom hours The portion of the training program that consists of didactic instruction in the thirteen content areas.

Clinical hours The portion of the training program in which the student provides direct care to residents in the clinical area under the supervision of a registered nurse.
Continuing Education Units (CEUs)  Refers to the 12 hours of continuing education required yearly for a CNA to maintain their license.

Curriculum  Description of each category of study within a program which covers the minimum knowledge and skill required for the nurse assistant.

Department of Public Health (DPH)  The Massachusetts agency which administers CNA programs and certification.

Instructor  A registered nurse who has meet the federal qualifications by having two years patient/resident care experience, one of these years being in a long-term care facility, and has demonstrated teaching ability through previous experience or by attending continuing education classes.

Knowledge  Basic information an individual needs to know in order to safely and effectively perform the job of a nursing assistant.

Laboratory hours  The portion of the program in which nursing skills may be practiced in a controlled environment under the supervision of a registered nurse.
Licensed Vocational Nurse (LVN) A licensed nurse who may supervise a CNA; an LVN is supervised by an RN. May also be referred to as an LPN (Licensed Practical Nurse).

Nursing assistant Also referred to as nurse aide or nurses’ aide. Any individual providing nursing care or nursing related services to patients or residents. Does not include an individual who volunteers to provide such services without pay or a licensed health professional. As of October 1, 1989, all nursing assistants had to be certified (CNA). Since some of the studies noted were done prior to this time, both the terms "nursing assistant" and "CNA" will be used.

Nursing home Refers to either a skilled nursing facility (SNF) or an intermediate care facility (ICF). May also be called a long-term care facility.

Omnibus Budget Reconciliation Act of 1987 (OBRA ‘87) Federal legislation passed on December 21, 1987, a major section of which, Subtitle C, Nursing Home Reform Act mandated 75 hours of education and training for nursing assistants followed by a competency exam.

Registered Nurse (RN) A licensed nurse who supervises both LVNs and CNAs.
Satisfaction The opinion that one has received adequate education and training for the certification and job requirements of a nursing assistant.

Skill The proper performance of physical and psychosocial tasks.

Turnover Refers to the percentage of CNAs who leave the facility annually.
I. RATIONALE FOR STUDY

A. Introduction

As the elderly population continues to grow, so does our nation’s concern over long-term care. The quality of care in nursing homes has become an important issue which has been addressed in federal legislation. On December 21, 1987 the United States Congress passed the Omnibus Budget Reconciliation Act (OBRA ’87), Subtitle C, the Nursing Home Reform Act. One major section of OBRA ‘87 mandates a 75-hour education and training program followed by a competency examination for nursing assistants. The intent of this legislation was that by increasing knowledge and skill among nursing assistants, the quality of care in nursing homes would improve. Prior to the enactment of OBRA ’87, there was no federal law concerning the education and training of nursing assistants (Haviland et al., 1990).

The Health Care Financing Administration (HCFA) was appointed to implement the federal requirements; it is then up to the state to design training programs that meet the federal guidelines. Training programs may be planned and taught in schools, health care facilities, or other agencies with state approval. The federal regulations include the following (Haviland et al., 1990, OBRA, 87, & Smith, 1992):

1) A minimum of 75 hours of education and training in the following areas: basic nursing skills; personal care skills; mental health and social service; basic restorative services; and resident rights.  
2) This 75 hour training period must
be completed within the first four months of employment.

3) Sixteen hours of the 75 hour training must be completed before any direct care with residents is performed. This initial block of instruction must include the following: communication and interpersonal skills; infection control; safety and emergency procedures; promoting residents' independence; and respecting residents' rights. 4) Training programs must be under the direction of a registered nurse (RN). All instructors must be licensed nurses who have had at least two years patient care experience, one year of which must be in a long-term care facility. Instructors must also have previous teaching experience or must have attended continuing education classes in teaching. 5) Each state is responsible for developing their own process to evaluate competency. 6) This mandate must be phased in over the next two years. As of October 1, 1989 all nursing assistants must be certified.

In a policy analysis of OBRA '87, questions arose regarding the standards of training programs since it was not mandated that state boards of nursing be responsible for nurse aide certification programs (Kelly, 1989). The agency selected to administer these programs varies between states. For example, in the state of California, the Department of Health Services administers the program; in Maryland it is administered by the Department of Health and Mental Hygiene; in Massachusetts it is under the Department of Public Health; and in Michigan, Educational Testing Services administers the
program.

Criteria for program curriculum also differ between states. For example, in California, a total of 150 hours is required (California Code of Regulations, 1992). While Massachusetts requires a total of 75 hours of training. In addition, variation exists among programs within a state. For example, in Massachusetts, some programs include laboratory hours and some do not (Massachusetts Department of Public Health, 1989).

OBRA '87 has made the first major step towards improving education and training for nursing assistants. Federal and state governments have set the standards, yet do nursing assistants agree that improvements have occurred, or that these standards are appropriate? Are nursing assistants satisfied with their education and training programs? What additional factors need to be considered to improve present programs? Input from certified nursing assistants (CNAs) is essential, because in order improve the quality of care in nursing homes, more attention needs to be given to the opinions of CNAs regarding their education and training needs.

B. Review of literature

Nursing assistants comprise the largest group of nursing home personnel accounting for 40-70% of employees, and over 70% of the nursing staff. They provide 80-90% of the direct care of residents (Chappell & Novak, 1992, Cobe & Bentz, 1991, Day & Berman, 1989, Feldt & Ryden, 1992,
The common demographics found among CNAs are essential to consider when studying education and training. Greater than 90% are female; many are minorities; most lack formal education; and many fall into the working or lower class of socioeconomic status (Beach, 1987, Cobe & Bentz, 1991, Day & Berman, 1992, Dille, 1992, Garland et al., 1988, Holtz, 1982, LeSar, 1987, Monahan & McCarthy, 1992, & Tellis-Nayak & Tellis-Nayak, 1989). Most CNAs are between the ages of 20-45 (LeSar, 1987), yet have been noted to range from 16-71 years old (Monahan & McCarthy, 1992). Many live with personal hardships such as being single mothers; being the sole provider for the family; and having limited opportunities for other jobs due to lack of education and/or other skill (Cobe & Bentz, 1991, Holder, 1987, LeSar, 1987, Tellis-Nayak & Tellis-Nayak, 1989, & Wallace & Brubaker, 1982).


In 1982, Wallace & Brubaker related biographical characteristics of nursing assistants to their employment tenure. From five nursing homes with common characteristics,
A sample of 562 nursing assistants was drawn (103 were currently employed, 459 were terminated). Twenty-two demographic characteristics were obtained on each participant and compared. Statistically significant findings of this study included the following: 1) Older nursing assistants had longer employment tenure. 2) The fewer the years of education, the longer the employment tenure. 3) Unmarried nursing assistants had longer employment tenure.

A 1982 study measured job satisfaction among nursing assistants with Frederick Herzberg’s Motivational Hygiene Theory. A total of 31 nursing assistants from three Massachusetts nursing homes participated in the study. The instrument used was a 20-item closed-ended questionnaire containing two questions relating to each of the ten variables of Herzberg’s theory. Scoring was based on a Likert scale. The conclusions of this study rated the variables in order of importance to the nursing assistant. 1) Interpersonal relationships: Most felt that relationships with the residents was the best part of their job. Getting along with coworkers also contributed to staying longer at a job. 2) Supervision: Communication was important, and they appreciated knowing what their supervisors expected of them. 3) Achievement: Nursing assistants were satisfied when they accomplished a task. 4) Responsibility: They were satisfied by taking responsibility for their actions. 5) The work itself: The majority interviewed enjoyed their work. 6) Salary: Most considered salary important, yet it was not
a primary reason for job satisfaction or dissatisfaction.

7) Recognition: Although they considered recognition important, achievement was more important. The interpretation was that internal rewards such as achievement contributed more to personal satisfaction than external rewards such as recognition. 8) Administrative policies: Most felt far removed from the administrative operations of the facility, and did not consider administrative policies an important factor contributing to job satisfaction.

9) Working conditions: In this study working conditions were ranked as a low priority relating to job satisfaction. An interpretation of this finding was not revealed.

10) Advancement: The majority of the sample interviewed had a high school education, were content with their jobs, and did not seek further advancement (Holtz, 1982).

In 1984 the Waxman study looked at factors relating to job satisfaction among nursing assistants. A total of 234 nursing assistants from seven nursing homes in the Philadelphia area participated. In the literature review, Waxman was noted that lack of proper job orientation and inadequate training programs contributed to high turnover. The data collection for this study contained pertinent demographic information and a 115-item questionnaire using a Likert scale. Waxman’s most significant and surprising finding was that greater turnover occurred in the better quality nursing homes that offered good wages and benefits. In more organized, better staffed, and thus higher quality
nursing homes, nursing assistants tended to have less input and control. In smaller less structured facilities, they had less supervision and more control; these facilities had less turnover. The findings of Waxman’s study suggested that satisfaction and turnover would improve by simply including nursing assistants more in the decision-making process (Waxman et al., 1984).

Preconceived attitudes and personal characteristics have also been found to have an impact on turnover among nursing assistants. A 1988 study distinguished attitude measurements between those who stayed employed and those who left (Garland et al., 1988). The sample, drawn from all nursing homes in a 20-county area of Ohio, consisted of 79 nursing assistants who had been employed for at least ten years, and 35 nursing assistants who had left their job. The questionnaire related to demographic information, perceptions of nursing homes, and reasons for staying or leaving. The study concluded the following. Those who stayed employed were more likely to be older women, mostly minorities, and with little formal education. They tended to have a positive attitude towards nursing homes. They valued job security and relationships developed through work. In contrast, those who left their jobs were more likely to be younger white women who had completed high school and possibly some college. Their views of nursing homes were less positive, and they also perceived the public’s view of nursing homes as being less positive. They valued wages more than nonmaterial rewards such as
A 1989 study by Caudill & Patrick related turnover of nursing assistants with Maslow's Hierarchy of Needs. A total of 996 nursing assistants from 74 skilled nursing facilities (SNF) in Washington state participated. Data collection was done through a 56-item questionnaire. This study concluded the following. Maslow's first level of need, basic physiological, was operationalized as salary adequate enough to provide food and housing. Those nursing assistants who reported spending more than three-fourths of their salary on food and shelter had the shortest length of stay (LOS) at a facility. Maslow's second level of need, safety and security, was measured by orientation, schedule, and benefits. Those who had adequate job orientation, less frequent changes in their work assignment, and received some health and retirement benefits also had increased LOS. Maslow's third level of need, love and belonging, referred to work relationships. Feeling needed by the residents, being included as part of the group of coworkers, and having a charge nurse who listened to their concerns all had a positive correlation with increased LOS. Relating to Maslow's fourth level of need, self-esteem, nursing assistants were asked to rate their skill on a 10-point scale (10 being the highest). It was found that as scores on skill increased, so did LOS. Maslow's fifth level of need, self-actualization, was not included in this study. Self-actualization was not considered a level to be achieved by a
nursing assistant since their job is considered task-oriented.

A 1992 study in a rural area of Oregon explored the views of CNAs regarding their employment. A total of 76 CNAs from seven nursing homes participated. Data was collected by individual interviews using open-ended questions. From the responses gathered, content was analyzed and common themes identified. 1) Attachment to others: CNAs continued to work because they enjoyed residents and coworkers. 2) Gratification: They valued appreciation, praise, and recognition. 3) Demands: CNAs stated that their job is both physically and emotionally demanding. 4) Monetary needs: They admit a main reason they stay in their job is because they need the money, and some stated they lack other employment opportunities. 5) Decision-making by others: CNAs voiced frustration over their lack of control over many situations and decisions (Monahan & McCarthy, 1992).

A high level of stress is commonly reported among nursing assistants (Chappell & Novak, 1992, Cohen-Mansfield, 1989, Havens, 1990, Henderson, 1987, Monahan & McCarthy, 1992, & Rhoades, 1990). A 1992 study by Chappell & Novak studied stress among this group. A total of 245 CNAs from 26 long-term care facilities participated. Levels of work stress, burden, and burnout were measured using Likert scales. Work stress was defined as the lack of fit between the worker's needs and the environment. Burden and burnout were outcomes of work stress. Burden referred to the
negative effect of caregiving on caregivers. Burnout was defined as a state of attitudinal, emotional, and physical depletion. The researchers concluded the following. 1) Workload was the major predictor of burden. 2) Those CNAs who had training to work with cognitively impaired residents were less likely to burnout. 3) Those CNAs who lacked rewards in their job were more likely to burnout. 4) Social support both at work and/or at home significantly reduces work stress (Chappell & Novak, 1992).

Since the implementation of the OBRA '87 regulations, studies on the education and training of nursing assistants has been limited. In 1992 Dille looked at 45 nursing facilities administering training programs. Hours of training were categorized into four groups with 30 participants in each. The findings indicated that mean and median test scores increased in direct proportion to hours of training. It was also added that training programs should not only be evaluated by quantity (# of hours) but by quality (content) as well (Dille, 1992).

In 1992 Bowers & Becker identified that organizational skills of CNAs related to quality of care provided. Data was collected from three nursing homes, and a total of 30 CNAs participated. In order to fully understand the CNA perspective, a combination of participant observation and in-depth interviews were used. The findings noted that although CNAs were taught a wide variety of tasks in training programs, there was little discussion on how to integrate
these tasks. More experienced CNAs were more likely to integrate several tasks at once and care for more residents efficiently. The study concluded that organizational strategies developed by CNAs improve quality of care.

A recent study by Feldt & Ryden focused on education of CNAs caring for residents with behavioral problems. An educational program designed for caring for aggressive residents was implemented in a 147-bed SNF in the Midwest. The impact of the program had positive results and was measured by comparing pre and post test scores. Nursing assistants reported positive results; 1) the knowledge they gained from the course made caregiving for these residents significantly less frustrating 2) they became more knowledgeable about why actions and/or behaviors occur, and 3) the program improved communication skills among the staff (Feldt & Ryden, 1992).

In 1990 the National Council of State Boards of Nursing completed an extensive job analysis of CNAs in nursing homes, home health agencies, and hospitals. Both CNAs and instructors from 1,290 institutions nationwide participated in the study. It was found that activities performed by CNAs in the three different work settings were similar. For this reason, one competency evaluation program was developed for all CNAs. The Nurse Aide Competency Evaluation Program (NACEP) meets the OBRA '87 requirements, and serves as a guideline to states developing education and training programs. The following areas of instruction are recommended
and have been weighted according to frequency of performance and criticality (National Council of State Boards of Nursing, 1992).

1. Physical Care Skills
   A. Basic Nursing Skills 40-48%
   B. Basic Restorative Skills 17-21%
   C. Personal Care Skills 9-13%

2. Psychosocial Skills
   A. Patient/Resident Rights 13-17%
   B. Mental Health & Social Needs 8-12%

From this literature review I concluded the following.
1) The main health care providers in nursing homes are CNAs. For this reason, they are an essential group to focus on in order to improve the quality of care. 2) Job satisfaction and turnover among CNAs has been and continues to be a significant problem in nursing homes. Numerous studies have been done on these two areas, yet limited studies have been done on the education and training of CNAs. 3) Education and training can increase job satisfaction. By increasing job satisfaction, turnover can be decreased. 4) Nursing assistants have voiced concerns over inadequate training and the lack of training in specific areas such as mental health. 5) Many CNAs lack formal education, therefore didactic classroom instruction is the foundation to training. CNAs provide 80-90% of the direct care to residents, therefore it is essential that programs spend ample time in the clinical area as well. 6) Lack of supervision, and guidance from
licensed nurses has been a common complaint among CNAs. An effective training program needs to have: knowledgeable and supportive instructors, a class size which allows for individual questions, and close supervision and guidance in the clinical area. 7) Inadequate staffing is a common problem in nursing homes. If a student is in a highly stressful environment, this will effect the learning process. Therefore it is important to include facility characteristics such as staffing, when evaluating education and training programs. 8) The literature has noted relationships between personal characteristics and job satisfaction. Personal characteristics may influence satisfaction with education and training as well. 9) Formal education and training for nursing assistants is relatively recent. The standards set thus far are flexible, as evidenced by inconsistencies both between and within states. This flexibility allows for great potential to improve programs. 10) Since the implementation of the OBRA '87 requirements, limited studies have been done on CNA education and training programs, and no studies have been done on satisfaction of CNAs specifically relating to these programs. The purpose of this study was to explore satisfaction of CNAs with their education and training programs in long-term care facilities.
II. METHODS

A. Design of present study

A sample of 25 long-term care facilities in Massachusetts were surveyed regarding their CNA training programs. Companion surveys were sent to all 1993 graduates listed on the state registry regarding their satisfaction with the program.

The hypotheses were the following. 1) There is a relationship between satisfaction with education and training and program content areas which are: introduction/overview; aging and development; residents' rights; safety; activities of daily living (ADLs); the resident's room; observing and reporting; talking and listening; infection control; nutrition and hydration; mental health of residents; taking care of yourself; and care of the dying resident. 2) There is a relationship between satisfaction with education and training and percentage of program hours (classroom, clinical area, and laboratory). 3) There is a relationship between satisfaction with education and training and program characteristics. 4) There is a relationship between satisfaction with education and training and facility characteristics. 5) There is a relationship between satisfaction with education and training and personal characteristics.

B. Sample

The study was conducted in accordance with the Massachusetts Department of Public Health (DPH), the state
agency responsible for CNA training and licensure. Massachusetts has 496 active CNA programs, of these 416 are nursing home based. Since the purpose of this study focused on long-term care, those programs taught in hospitals, schools, or other agencies were excluded. From the 416 nursing home based programs, 25 were randomly selected to be surveyed. Criteria for facility selection included the following. 1) Program must have received DPH approval during state fiscal year 1991 (July 1, 1990 - June 30, 1991). 2) There must be a minimum of five CNAs listed on the registry who graduated from that facility during state fiscal year 1993 (July 1, 1992 - June 30, 1993). 3) Facility must have no fewer than 80 licensed beds.

Massachusetts has a total of 35,000 CNAs listed on the state registry. From the 25 facilities selected, a total of 423 CNAs were listed who met the following criteria. 1) They must have graduated within the past two years from one of the 25 programs selected. 2) They must have been certified during state fiscal year 1993. 3) They must have a complete mailing address listed on the registry. From the 423 CNAs listed, a 100% sample was taken. This was done since some facilities had the minimum number (five) of CNAs listed and others had over 50 CNAs listed. In addition, a low response was anticipated, therefore to maximize the number of responses, a 100% sample was optimal.
C. Variables and their measurement

Data was collected from three sources; the DPH, a facility survey, and a CNA survey. The DPH provided: state guidelines for CNA programs (APPENDIX A); and individual program information related to number of program hours spent on the 13 content areas, and hours of distribution between classroom, clinical area, and laboratory.

A letter and survey (APPENDIXES B & C) was mailed to the 25 facilities to collect data on the educational program information and facility characteristics. Program information included: number of times per year the program is offered; number of weeks the program lasts; average class size; instructor:student ratio in the clinical setting; categories of instructors/evaluators; student wage earning status during the program; and program pass rate. The facility data included: tax status; ownership; bed distribution and occupancy; turnover; and staffing.

A letter and survey (APPENDIXES E & F) was sent to 423 CNAs to collect data on satisfaction with the program and personal characteristics. Satisfaction was operationalized by: satisfaction with program for job preparation; satisfaction with program for exam preparation; satisfaction with program in each of the 13 content areas; ratings of teachers for the program; and rating the facility where the program was attended. Personal characteristics included: prior nurse aide experience; total number of years experience as a nurse aide; present work status; and future plans.
Demographics collected included; sex, age, race/ethnic group, language, and education. All participants could request a copy of the study results (APPENDIXES D & G).

D. Research Procedure

1) The Massachusetts DPH, Division of Health Care Quality, Freedom of Information Office director agreed by phone to provide the information necessary to conduct the study.

2) A letter of confirmation of the phone agreement, along with the specifications of selection criteria for programs and CNAs, was mailed in June 1993. 3) The following information was furnished approximately eight weeks later (August 1993): Massachusetts CNA program standards; curriculum specifications for each of the 25 training programs; and one 3.5" disk with information on the 25 facilities to include name, address, contact person, and phone number. Corresponding information on 423 CNAs included name and home address. 4) In September 1993, 25 surveys were mailed to long-term care facilities in Massachusetts addressed to the contact person for the CNA program. On the same day, 423 companion surveys were mailed to CNAs. No consent form was necessary since survey participation was strictly voluntary and no risks were involved. 5) Approximately six weeks later, November 1993, a follow-up letter was sent to those facilities who had not responded (APPENDIX H). 6) The study concluded in December 1993, and data analysis began.
III. FINDINGS

A. Description of sample

From the 25 facility surveys mailed, 14 were returned and 11 were not. Among those facilities who responded, 25% were for profit single agencies, and 75% were for profit chains. The majority (75%) were individually or privately owned, and the remaining facilities (25%) were owned by a corporation. The number of licensed beds at the facilities surveyed ranged from 80 to 295. Most beds were categorized as skilled care (mean = 101, with 99% occupancy), and the remainder were intermediate care (mean = 36, with 98% occupancy).

Information provided from the facilities regarding the education of CNAs included the following. On the average, programs lasted four weeks, and were offered five times yearly. The average class size was six students, with a ratio of six students to one instructor in the clinical area. There was a variety of instructors/evaluators as displayed on TABLE 1. For these programs, the average pass rate was 87%, ranging from 50-100%. The great majority (91%) were paid wages while attending the program, and the remainder (9%), earned partial wages.

The DPH provided distribution of hours (TABLE 2) and curriculum information (TABLE 3) on all 25 programs. All programs followed the same guidelines for the mandatory 16 hours of classroom instruction prior to clinical training.
<table>
<thead>
<tr>
<th>Category</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staff development RN</td>
<td>14</td>
<td>26</td>
</tr>
<tr>
<td>Nursing supervisor or Charge nurse</td>
<td>11</td>
<td>21</td>
</tr>
<tr>
<td>Clinical RN</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>Clinical LVN</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>CNA</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>Director of nurses (DON) or Assistant DON</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Other health professional</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>Staff development LVN</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td><strong>Contract from outside facility</strong></td>
<td><strong>1</strong></td>
<td><strong>2</strong></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>53</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
TABLE 2. Distribution of program hours

<table>
<thead>
<tr>
<th>Hours</th>
<th>Mean</th>
<th>SD</th>
<th>Percentage of total hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classroom</td>
<td>34.3</td>
<td>6.99</td>
<td>45</td>
</tr>
<tr>
<td>Clinical</td>
<td>30.0</td>
<td>6.33</td>
<td>39</td>
</tr>
<tr>
<td>Laboratory</td>
<td>12.3</td>
<td>5.17</td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td>76.6</td>
<td>2.88</td>
<td>100</td>
</tr>
</tbody>
</table>

TABLE 3. Curriculum information on content areas

<table>
<thead>
<tr>
<th>Content area</th>
<th>Number of hours state recommends</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction/Overview</td>
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<td>1.4</td>
<td>.57</td>
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<tr>
<td>Aging &amp; Development</td>
<td>3</td>
<td>2.8</td>
<td>.49</td>
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<tr>
<td>Residents’ Rights</td>
<td>3</td>
<td>2.92</td>
<td>.8</td>
</tr>
<tr>
<td>Safety</td>
<td>8</td>
<td>7.36</td>
<td>2.1</td>
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<td>Activities of Daily Living</td>
<td>28</td>
<td>30.16</td>
<td>2.13</td>
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<tr>
<td>The Resident’s Room</td>
<td>1</td>
<td>1.8</td>
<td>.89</td>
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<tr>
<td>Observing &amp; Reporting</td>
<td>7</td>
<td>6.28</td>
<td>1.43</td>
</tr>
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<td>4.0</td>
<td>.98</td>
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<td>Infection Control</td>
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<td>3.96</td>
<td>.66</td>
</tr>
<tr>
<td>Nutrition &amp; Hydration</td>
<td>4</td>
<td>4.56</td>
<td>.98</td>
</tr>
<tr>
<td>Mental Health of Residents</td>
<td>7</td>
<td>6.68</td>
<td>.92</td>
</tr>
<tr>
<td>Taking Care of Yourself</td>
<td>2</td>
<td>1.9</td>
<td>.56</td>
</tr>
<tr>
<td>Care of the Dying Resident</td>
<td>3</td>
<td>2.8</td>
<td>.57</td>
</tr>
<tr>
<td>Total</td>
<td>75</td>
<td>76.6</td>
<td></td>
</tr>
</tbody>
</table>
From the 423 CNA surveys mailed; 142 were returned; 263 were not returned; and 28 were not deliverable. Of the CNA surveys returned, the majority of the sample were female (94%), and between 21 to 40 years old (65%) (TABLE 4). The sizeable majority were Caucasian (64%) (TABLE 5). Nearly all had completed high school (94%), and a few (9%) had completed college (TABLE 6). The majority of the sample (87%), had English as their primary language.

The majority of the CNAs (63%), had some experience as a nurse aide before attending the training program. The total number of years experience as a nurse aide ranged from 0 to 30 years, the mean was five years, and the mode was two years. The great majority (90%) were presently working as CNAs. When asked about future plans; 68% planned to continue working as CNAs, 28% planned to become nurses, and 4% had other plans.

B. Description of study findings

Overall, CNAs were satisfied with their education and training programs. On a 5-point Likert scale, ranging from very satisfied to very dissatisfied, CNAs were "satisfied" with their program both in relation to job preparation and exam preparation. On a rating scale of excellent/good/fair/poor, the majority rated teachers for the programs, and the facilities where the programs were attended as "good". When correlating these four variables, job preparation, exam preparation, teachers, and facility, they were all found to be positively related, level of significance (p<.1).
TABLE 4. Sex and Age of CNA respondents

<table>
<thead>
<tr>
<th>Sex</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>134</td>
<td>94.4</td>
</tr>
<tr>
<td>Male</td>
<td>8</td>
<td>5.6</td>
</tr>
<tr>
<td>Total</td>
<td>142</td>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 or younger</td>
<td>18</td>
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<tr>
<td>21 - 30</td>
<td>52</td>
<td>36.6</td>
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<tr>
<td>31 - 40</td>
<td>41</td>
<td>28.9</td>
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<tr>
<td>41 - 50</td>
<td>18</td>
<td>12.7</td>
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<tr>
<td>over 50</td>
<td>13</td>
<td>9.2</td>
</tr>
<tr>
<td>Total</td>
<td>142</td>
<td>100.0</td>
</tr>
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</table>

TABLE 5. Race/Ethnicity of CNA respondents

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>African-American</td>
<td>2</td>
<td>1.4</td>
<td>1.4</td>
</tr>
<tr>
<td>Asian</td>
<td>1</td>
<td>.7</td>
<td>.7</td>
</tr>
<tr>
<td>Caribbean Islander</td>
<td>3</td>
<td>2.1</td>
<td>2.1</td>
</tr>
<tr>
<td>Caucasian</td>
<td>90</td>
<td>63.4</td>
<td>64.3</td>
</tr>
<tr>
<td>Hispanic</td>
<td>7</td>
<td>4.9</td>
<td>5.0</td>
</tr>
<tr>
<td>Native American</td>
<td>28</td>
<td>19.7</td>
<td>20.0</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
<td>6.3</td>
<td>6.4</td>
</tr>
<tr>
<td>Missing Data</td>
<td>2</td>
<td>1.4</td>
<td>missing</td>
</tr>
<tr>
<td>Total</td>
<td>142</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Highest education completed</td>
<td>Frequency</td>
<td>Percent</td>
<td></td>
</tr>
<tr>
<td>------------------------------------------------------------------</td>
<td>-----------</td>
<td>---------</td>
<td></td>
</tr>
<tr>
<td>Some high school</td>
<td>8</td>
<td>5.6</td>
<td></td>
</tr>
<tr>
<td>Completed high school</td>
<td>51</td>
<td>35.9</td>
<td></td>
</tr>
<tr>
<td>Some vocational/technical school or junior college</td>
<td>22</td>
<td>15.5</td>
<td></td>
</tr>
<tr>
<td>Completed vocational/technical school or junior college</td>
<td>12</td>
<td>8.5</td>
<td></td>
</tr>
<tr>
<td>Some four year college</td>
<td>32</td>
<td>22.5</td>
<td></td>
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<tr>
<td>Completed four year college</td>
<td>13</td>
<td>9.2</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>2.8</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>142</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>
The CNAs were also asked how satisfied they were with education and training in each of the 13 content areas in terms of job preparation, exam preparation, and number of hours spent. For each of these content areas a mean satisfaction score was computed. Overall, the ratings were "good" for all 13 content areas. Mean satisfaction scores for content areas are displayed in ranking order on TABLE 7, from the content area CNAs were most satisfied with, residents' rights, to the content area they were the least satisfied with, infection control.

In cross-tabulations of subpopulations, patterns were noted between the following groups. 1) Males were less satisfied than females. 2) Whereas the 41-50 age group was the least satisfied, the over 50 age group was the most satisfied. 3) CNAs whose first language was other than English were more satisfied than those whose first language was English. 4) Respondents who were not presently working as CNAs were less satisfied than those who were presently working as CNAs. 5) Those who did not plan to continue working as CNAs were less satisfied, than those who planned to continue working as CNAs, or those who planned to become nurses. 6) There were no significant differences in satisfaction scores according to race/ethnic background, education level, or between CNAs with prior experience and those with no prior experience.

The hours of instruction variables (class hours, clinical hours, and laboratory hours) were correlated with
TABLE 7. CNA satisfaction scores with content areas

n = 142
Code  5 = excellent,  4 = good,  2 = fair,  1 = poor

<table>
<thead>
<tr>
<th>Content area</th>
<th>Valid cases</th>
<th>Missing cases</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residents’ Rights</td>
<td>134</td>
<td>8</td>
<td>4.38</td>
<td>1.02</td>
</tr>
<tr>
<td>Safety</td>
<td>134</td>
<td>8</td>
<td>4.25</td>
<td>1.10</td>
</tr>
<tr>
<td>Talking &amp; Listening</td>
<td>134</td>
<td>8</td>
<td>4.17</td>
<td>1.11</td>
</tr>
<tr>
<td>Observing &amp; Reporting</td>
<td>134</td>
<td>8</td>
<td>4.14</td>
<td>1.17</td>
</tr>
<tr>
<td>Aging &amp; Development</td>
<td>131</td>
<td>11</td>
<td>4.05</td>
<td>1.12</td>
</tr>
<tr>
<td>Introduction/Overview</td>
<td>132</td>
<td>10</td>
<td>4.01</td>
<td>1.19</td>
</tr>
<tr>
<td>Activities of Daily Living</td>
<td>133</td>
<td>9</td>
<td>4.00</td>
<td>1.23</td>
</tr>
<tr>
<td>Nutrition &amp; Hydration</td>
<td>133</td>
<td>9</td>
<td>3.94</td>
<td>1.24</td>
</tr>
<tr>
<td>Mental Health of Residents</td>
<td>134</td>
<td>8</td>
<td>3.83</td>
<td>1.33</td>
</tr>
<tr>
<td>Taking Care of Yourself</td>
<td>133</td>
<td>9</td>
<td>3.82</td>
<td>1.42</td>
</tr>
<tr>
<td>The Resident’s Room</td>
<td>130</td>
<td>12</td>
<td>3.78</td>
<td>1.34</td>
</tr>
<tr>
<td>Care of the Dying Resident</td>
<td>132</td>
<td>10</td>
<td>3.69</td>
<td>1.51</td>
</tr>
<tr>
<td>Infection Control</td>
<td>134</td>
<td>8</td>
<td>3.67</td>
<td>1.22</td>
</tr>
</tbody>
</table>
the mean satisfaction variables (job preparation, exam preparation, teacher rating, and facility rating) for each facility. The following variables were found to have a positive linear relationship, level of significance (p<.1).

1) As lab hours increased, job preparation satisfaction increased. 2) As teacher rating increased, job preparation satisfaction increased. 3) As facility rating increased, job preparation satisfaction increased. 4) As exam preparation satisfaction increased, job preparation satisfaction increased. 5) As teacher rating increased, exam preparation satisfaction increased. 6) As facility rating increased, exam preparation satisfaction increased. 7) As facility rating increased, teacher rating increased. 8) As total hours increased, class hours increased.

The following variables were found to have a negative linear relationship, level of significance (p<.1). 1) As clinical hours increased, facility rating decreased. 2) As class hours increased, clinical hours decreased. 3) As class hours increased, lab hours decreased. 4) As clinical hours increased, lab hours decreased.

Due to the low facility response, n = 14, and the even lower number of facilities that filled out the survey completely and accurately, n = 5, statistical analysis specifically relating to program and facility characteristics were thwarted.
C. Hypothesis testing

In analyzing the study findings with the five hypotheses, the following relationships were found.

Hypothesis #1: There is a relationship between satisfaction with education and training and program content areas. Overall, the respondents were satisfied with all content areas, and consequently were satisfied with the program in terms of job preparation and exam preparation. In statistical testing using correlation coefficients, these variables all had positive linear relationships, level of significance (p<.1). As satisfaction in each content area increased, so did satisfaction with job preparation and exam preparation. When comparing mean satisfaction scores by content area (TABLE 7), it was noted that standard deviations from the mean for content areas did not differ greatly. Lastly, it was noted that content areas CNAs were least satisfied with were a) care of the dying resident, and b) infection control.

Hypothesis #2: There is a relationship between satisfaction with education and training and percentage of program hours (classroom, clinical area, and laboratory). When these variables were correlated, only one positive linear relationship, level of significance (p<.1), was found. This finding was that as the number of laboratory hours increased, so did satisfaction with job preparation. Also only one negative linear relationship, level of significance (p<.1), was found. This finding was that as the number of clinical
hours increased, the facility rating decreased. It was also noted that as total hours increased, class hours only increased, not clinical or laboratory. Lastly, in reference to TABLE 2, the standard deviation for total hours was 2.88, while the standard deviations in terms of distribution of hours were all higher. This would support the literature review findings that CNA programs may not be as standardized as they should be.

Hypothesis #3: There is a relationship between satisfaction with education and training and program characteristics. When statistical correlation was done, it was found that the ratings for teachers had a positive linear relationship, level of significance (p<.1), with both exam preparation and job preparation satisfaction scores. Frequencies between groups were found to be too small to report accurate findings when analysis was done on other program characteristics such as 1) how often the program was offered, 2) the number of weeks the program lasts, 3) the average class size, 4) wage earning status, 5) categories of instructors/evaluators, and 6) program pass rate.

Hypothesis #4: There is a relationship between satisfaction with education and training and facility characteristics. The facility rating had a positive linear relationship, level of significance (p<.1), with both exam preparation and job preparation satisfaction scores. Since only five facilities filled in questions completely regarding staffing, bed distribution, and occupancy, accurate analysis of these
variables could not be reported since frequencies were too small (<5). T-tests for differences of means were done to compare CNA personnel turnover between facilities both by type and by ownership. There appeared to be no significant differences in turnover between single agencies versus corporations, nor between for profit single agencies versus for profit chains. Again, when additional analysis on turnover was done as it relates to satisfaction, due to incomplete data, small frequencies resulted which cannot be considered statistically significant.

Hypothesis #5: There is a relationship between personal characteristics and satisfaction with education and training. In cross-tabulations of subpopulations, the following patterns were noted among the variables relating to personal characteristics. 1) Sex: Males were less satisfied than females. 2) Age: The over 50 age group were the most satisfied, whereas the 41-50 age group were the least satisfied. 3) Language: CNAs whose first language was other than English were more satisfied than those whose first language was English. 4) Work: Respondents who were presently working as CNAs were more satisfied than those who were not. 5) Future: Those respondents who did not plan to continue working as CNAs were less satisfied, than those who planned to continue working as CNAs or who planned to become nurses. Lastly, all CNAs surveyed were certified during 1993, variation by month was not believed to be pertinent information, therefore was not analyzed.
In general, all five hypotheses were supported by the findings, and relationships did exist. The hypotheses may have been more strongly supported if facility responses were better. The low facility response, along with incomplete surveys, resulted in small frequencies which thwarted complete analysis of all variables.

D. Anecdotal data

A comment/suggestion area was included on all surveys. The CNA respondents were very forthcoming with their ideas. The following comments/suggestions were noted. 1) Training programs are "too basic", should be longer, include more information, and be more "in-depth". 2) Programs are based on the "ideal" work situation which is "unrealistic" in nursing homes where CNAs must care for many residents at once. 3) Too much time is spent in the classroom, there needs to be more clinical experience. 4) Teachers should demonstrate more nursing skills, such as skin care. 5) There should be more review on taking exams. 6) Spending time with the physical therapist during the program would be beneficial. 7) Some felt "burned-out" caring for residents with mental health problems. 8) Infection control and employee safety were two areas being neglected. 9) CNAs must have 12 continuing education units (CEUs) yearly in order to maintain their license, sometimes these inservices are not always available. 10) CNAs from one facility commented that their facility offers two "advanced" CNA courses in addition to the basic course, they found this to be very helpful.
IV. DISCUSSION & CONCLUSION

A. Summary of major findings

Overall, CNAs who participated in this study were satisfied with their education and training programs. Satisfaction with the program in terms of job preparation, exam preparation, teachers, and the facility all were positively related.

Laboratory hours, the one section of training programs that is not mandatory, had a positive relationship with job preparation satisfaction. In contrast, clinical hours, which are mandatory, had a negative relationship with the facility rating.

In comparing satisfaction scores by content area, CNAs tended to be the least satisfied in the areas of care of the dying resident and infection control. In comparing overall satisfaction scores according to subpopulations patterns were noted according to sex, age, language, present work situation, and future plans. Lastly, additional comments/suggestions made by CNA respondents elicited valuable information regarding education and training programs.

B. Meaning of findings

From the findings of this study, education and training programs are meeting the needs of CNAs, yet room for improvement exists. In order for CNAs to be satisfied with programs, the curriculum must be pertinent to the role of the CNA, the teacher must be knowledgeable, skillful, and have an effective teaching style, and the facility must support the
Increasing laboratory hours in programs may increase satisfaction with job preparation. As stated in the literature review, the job of the CNA is primarily task-oriented, requiring proficiency in many nursing skills. The laboratory allows the students to practice these skills in a controlled environment. This helps to increase their ability, and to reduce anxiety prior to performance in the clinical area where direct care is given to residents.

Lastly, personal characteristics will influence the learning process. In order to optimize education and training, individual backgrounds and learning needs should be considered.

C. Limitations of this study

The major limitation of this study was the low facility response which thwarted complete analysis of CNA satisfaction as it related to program and facility characteristics. Surveys were sent to 25 facilities and 423 CNAs. A total of 14 facilities responded (56%), and only five, 20% of the total surveyed, filled out all questions completely and accurately. As the total number of usable facility surveys dropped, consequently the corresponding number of usable CNA surveys decreased. Of the 423 CNAs surveyed, 142 responded (34%). When pairing the CNAs with their facility, the number of usable CNA surveys dropped to 93 (22%), and when matching CNAs to those five facilities who filled out the survey completely and accurately, the number of corresponding CNA
surveys decreased to 39 (9%).

Because of this response problem, a detailed analysis of multiple variables which were hypothesized to relate to satisfaction with education and training could not be reported with any accuracy. For this reason, most analysis was done using DPH curriculum information and CNA survey data. The generalizations made in this study as to how satisfied CNAs are with their education and training do not take into account facility and program characteristics which ideally should have been controlled for, yet could not be due to incomplete data.

Another limitation to this study may be inaccurate answers due to misunderstanding questions. For example, 20% of CNA respondents categorized themselves as Native Americans, this high percentage is unlikely to be true. It is probable that many respondents misinterpreted Native American for American.

D. Implications for future research

Education and training of CNAs is still in the beginning stages, and future studies could help to improve programs. As this study found, input from CNAs themselves is an important part, yet facility cooperation is necessary. Future researchers may benefit by collecting data on site, this would ensure a better response by both the facility and the CNAs. A more simplified survey may eliminate misunderstandings which commonly result in inaccurate answers and missing data.
Areas for future research may include specific studies relating to skills labs for CNAs, and advanced CNA courses. Continuing research on the education and training of CNAs needs to be done in accordance with the dynamic environment of long-term care.

E. Applications for practice

The findings of this study suggest the following could increase CNA satisfaction with education and training programs. 1) Incorporate more laboratory hours into training programs. This allows students to practice skills which may improve satisfaction with job preparation. 2) Teachers should demonstrate more nursing skills. An example of this may be skin care. Although it is the licensed nurse who does dressing changes in long-term care facilities, it is the CNA who assists residents with daily hygiene. Therefore, it is essential for the CNA to have the ability to do proper skin care, and to have the knowledge to recognize the stages of skin breakdown. 3) A video library should be made available to review test-taking and the role of the CNA. 4) CNAs should be encouraged to discuss the emotionally difficult aspects of their job such as caring for those residents with mental health problems, or care of the dying resident. Administrators should encourage CNAs to attend Death and Dying seminars for additional support. 5) Adequate time should be given to infection control and employee safety. Good handwashing needs to be emphasized. Proper body mechanics when lifting residents is an important safety issue.
not only for the resident, but for the caregiver as well. CNAs may benefit by having a physical therapist teaching in this area. 6) Programs should incorporate time management, organizational techniques, and teamwork into their curriculum. This may help to alleviate work stress and allow CNAs to provide care more efficiently when assigned to many residents at once. 7) After initial training, continuing education is essential. Facilities should make CEUs available to CNAs in order to maintain their license. In this matter, the facility which offers two advanced CNA courses had an excellent idea. 8) Lastly, include CNAs in decision-making at long-term care facilities, especially in those decisions which effect their education and training. For CNAs are the vital link to quality improvements in nursing homes and the future of long-term care.
APPENDIX A

Massachusetts Nurses' Aides Training Program

Curriculum Specifications
Massachusetts Nurses' Aides Training Program
Curriculum Specifications
75-Hour Minimum Standard Curriculum
Meets Combined State and Federal Standards as of 4/12/89

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours (Recommended)</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Introduction/Overview</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2. Aging and Development</td>
<td>3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>3. Residents' Rights</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>4. Safety</td>
<td>8</td>
<td>4</td>
<td>12</td>
</tr>
<tr>
<td>5. Activities of Daily Living</td>
<td>28</td>
<td>25</td>
<td>35</td>
</tr>
<tr>
<td>6. The Resident's Room</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>7. Observing and Reporting</td>
<td>7</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>8. Talking and Listening</td>
<td>4</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>9. Infection Control</td>
<td>4</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>10. Nutrition and Hydration</td>
<td>4</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>11. Mental Health of Residents</td>
<td>7</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>12. Taking Care of Yourself</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>13. Care of the Dying Resident</td>
<td>3</td>
<td>2</td>
<td>5</td>
</tr>
</tbody>
</table>

TOTAL HOURS MUST BE 75

Courses must have clinical hours in module 5, 8, & 10. The total number of clinical hours must be at least 21, but may be more.
APPENDIX B

Facility survey cover letter
Dear

Your facility has been randomly selected to participate in a study of Massachusetts nurses’ aides education and training programs. Nurse aide satisfaction and turnover have been common areas of interest in long-term care. Since the implementation of OBRA '87, mandating 75 hours of education and training for nurses’ aides, limited studies have been done specifically relating to these programs. This study is being conducted to evaluate the satisfaction of nurses’ aides with their education and training. A companion survey has been sent to recent graduates of the facilities selected for participation in this study.

Your response is very important, for a small sample has been selected to represent all training programs offered by long-term care facilities throughout the state. This survey is completely confidential. The name of the facility will never be disclosed either verbally or in print. The responses of the graduates are also being held in complete confidence and will not be disclosed. The purpose of the identification number on the survey will serve only to aid in the statistical analysis which will be generated from the survey responses. Upon completion of the study, a summary of the results will be available to the participants.

Understanding the needs of nurses’ aides is an essential element in planning improvements in the quality of care in long-term care facilities. Please assist me in this study by completing the following survey and returning it in the enclosed self-addressed stamped envelope. Your cooperation will be valuable and greatly appreciated.

Sincerely,

Sheila Morin, R.N.

5500 University Parkway, San Bernardino, CA 92407-2397
APPENDIX C

Facility survey
1. How many times per year is the nurse aide training program offered at your facility?
   ______ times per year

2. Over how many weeks does the usual training program last?
   ______ weeks

3. What is the average class size?
   ______ students

4. What is the usual number of instructors and students in the clinical setting?
   a. ______ instructors  b. ______ students

5. Which title best describes your nurse aide instructors/evaluators? Please indicate number of instructors and/or evaluators in each category (I = instructor, E = evaluator, I/E = both instructor and evaluator):
   director of nurses (DON)  I  E  I/E
   or assistant DON
   nursing supervisor or charge nurse  I  E  I/E
   staff development RN  I  E  I/E
   staff development LVN  I  E  I/E
   clinical RN  I  E  I/E
   clinical LVN  I  E  I/E
   CNA  I  E  I/E
   other (please specify)  I  E  I/E

6. Do the nurse aides earn wages while attending the program?
   ______ yes  ______ no  ______ other (please specify)

Questions 7 & 8 refer to state fiscal year 1993 (July 1, 1992 - June 30, 1993).

7. During this time, how many students started the program?
   ______ students

8. During this time, how many students completed the program?
   ______ students
The remaining questions, 9 through 13, relate to facility characteristics and administrative factors which are necessary to ask for statistical purposes.

9. Which category best describes your type of your facility?
   ___ non profit single agency
   ___ non profit chain
   ___ for profit single agency
   ___ for profit chain
   ___ other (please specify)

10. Which category best describes the ownership of your facility?
    ___ individual/private
    ___ hospital
    ___ government
    ___ church
    ___ other (please specify)

11. What is your facility's bed distribution and occupancy?
    a. ___ skilled care beds __ occupied
    b. ___ intermediate care beds ___ occupied
    c. ___ residential care beds ___ occupied

12. What was the total number of CNA new hires and departures during the past twelve months?
    a. ___ CNA new hires  b. ___ CNA departures

13. What is the usual staffing at your facility on an typical weekday shift?
    a. day shift ___ RNs ___ LVNs ___ CNAs
    b. evening shift ___ RNs ___ LVNs ___ CNAs
    c. night shift ___ RNs ___ LVNs ___ CNAs

Thank you. Please see attached page concerning receiving a copy of the results of this study. Please make any general comments on the back of this questionnaire.
APPENDIX D

Facility survey request for results
TO RECEIVE A SUMMARY OF THE RESULTS OF THIS STUDY

A. To ensure confidentiality, please detach this page from the survey.

B. If you do not wish to receive a summary of the results of this study, simply discard this page.

C. If you do wish to receive a summary of the results of this study, please fill in a complete address below and mail this page back along with your completed survey.

Name:
Street Address:
City/Town:
State:
Zip Code:
APPENDIX E

CNA survey cover letter
Dear

You have been chosen to participate in a study of Massachusetts nurses' aides education and training programs. The purpose of this study is to obtain information about how satisfied CNAs are with their education and training. For example, what you did or did not like about the program you attended. Nurses' aides are the most important group of health care providers in long-term care facilities, for this reason I have chosen to do this study to gain some insight on the views of CNAs.

Your participation is very important since only a small group was selected to represent all CNAs throughout the state. This survey is completely confidential. Your name will never be mentioned. The purpose of the identification number on the questionnaire will only be used to categorize responses. Upon completion of the study, a summary of the results will be available to the participants.

The opinions of nurses' aides are essential in planning improvements in the quality of care in long-term care facilities. Please assist me in this study by completing the following survey and returning it in the enclosed self-addressed stamped envelope. Your cooperation will be valuable and greatly appreciated.

Sincerely,

Sheila Morin, R.N.

5500 University Parkway, San Bernardino, CA 92407-2397
APPENDIX F

CNA survey
1. In general, how satisfied were you with the education and training you received in preparation for your job as a CNA?
   Circle the number that best describes your satisfaction.

<table>
<thead>
<tr>
<th>Very Satisfied</th>
<th>Satisfied</th>
<th>Neutral</th>
<th>Dissatisfied</th>
<th>Very Dissatisfied</th>
<th>Don’t Know</th>
<th>Other</th>
<th>Please Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. How satisfied were you with the education and training you received in preparation for the certification examination?

<table>
<thead>
<tr>
<th>Very Satisfied</th>
<th>Satisfied</th>
<th>Neutral</th>
<th>Dissatisfied</th>
<th>Very Dissatisfied</th>
<th>Don’t Know</th>
<th>Other</th>
<th>Please Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. In general, how would you rate your teachers for the program?

<table>
<thead>
<tr>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>Don’t Know</th>
<th>Other</th>
<th>Please Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. In general, how would you rate the facility where you attended the program?

<table>
<thead>
<tr>
<th>Excellent</th>
<th>Good</th>
<th>Fair</th>
<th>Poor</th>
<th>Don’t Know</th>
<th>Other</th>
<th>Please Explain</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>4</td>
<td>2</td>
<td>1</td>
<td>8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. What was the month and year you completed your CNA training? 

6. What was the month and year you took CNA examination?

7. How would you rate the program’s ability to prepare you in each of these training content areas? Write the number in each box best describing your experience for each.

<table>
<thead>
<tr>
<th>Content Area</th>
<th>Met needs for training in preparation for examination?</th>
<th>Preparation for job?</th>
<th>Hours spent on content area?</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Introduction to Course</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Aging &amp; Development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Resident’s Rights</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Safety</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Activities of Daily Living (ADL)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. The Resident’s Room</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>g. Observing &amp; Reporting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>h. Talking &amp; Listening</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>i. Infection Control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>j. Nutrition &amp; Hydration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>k. Mental Health of Residents</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>l. Taking Care of Yourself</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>m. Care of the Dying Resident</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8. Did you have any experience working as a nurse aide before attending the program?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Other (Please explain)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

9. How many years of total experience do you have as a nurse aide?

[ ] [ ] Years [ ] [ ] Months

10. Where are you presently working?

1. I am working as a CNA in the same facility where I took the program.
2. I am working as a CNA in a different facility from where I took the program.
3. I am working, but no longer as a CNA.
4. I am not employed at this time.
5. Other (Please Explain):

11. If currently working as a CNA, do you plan to continue doing so?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Other (Please explain)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

The remaining questions relate to personal characteristics and are necessary to ask for statistical comparisons.

12. What is your sex?

[ ] 1 Female [ ] 2 Male

13. What is your present age?

1. 20 or younger
2. 21 - 30 years
3. 31 - 40 years
4. 40 - 50 years
5. Over 50 years

14. What racial or ethnic background do you consider yourself?

1. African American
2. Asian
3. Caribbean Islander
4. Caucasian
5. Filipino
6. Hispanic
7. Native American
8. Pacific Islander
9. Other (please specify)
10. Other (Please specify)

15. Is English the first language you learned to speak?

<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
<th>Other (Please explain)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

16. What is the highest level of education you completed prior to your nurse aide education and training?

1. No formal education
2. Some grade school
3. Completed grade school
4. Some high school
5. Completed high school
6. Some vocational/technical school or junior college
7. Completed vocational/technical school or junior college
8. Some four year college
9. Completed four year college
10. Other (Please specify):

Thank you. Please see attached page concerning receiving a copy of results of study. Please make any general comments on back of questionnaire.
APPENDIX G

CNA survey request for results
To receive a summary of the results of this study

A. In order to ensure the confidentiality of your responses, please detach this page from the survey.

B. If you do not wish to receive a summary of the results of the study, simply discard this page.

C. If you do wish to receive a summary of the results of this study, please fill in a complete address and mail this page back along with your completed survey.

<table>
<thead>
<tr>
<th>Name:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Address:</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>City</td>
<td>State</td>
</tr>
</tbody>
</table>
APPENDIX H

Facility follow-up letter
November 1, 1993

Dear

Approximately six weeks ago you should have received the enclosed letter and questionnaire regarding nurses' aides education and training programs.

If you have already completed and returned the survey, please accept my sincere thanks. In the event your questionnaire has been misplaced, a replacement is enclosed.

The responses of the nurses' aides have been encouraging, yet the program and facility information I am asking you to provide is essential in order to perform accurate analysis. Your response will be valuable and greatly appreciated.

Thank you for your attention to this matter.

Sincerely,

Sheila Morin, R.N.


Holder, E.L. (1987). The nursing assistant: To know quality is to give it. Provider, 13 (4), 36-37, 52.


