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## New Jersey Home Health Care Aides Survey Results

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### Abstract

The objective of the study was to report on what violence-based training home health care aides received, their participation in health promotion classes, and home health care aides' experience with workplace violence. In 2013, a mail survey was completed by 513 home health care aides in the state of New Jersey. Ninety-four percent of the respondents were female. Respondents whose agency was part of a hospital were more likely to receive violence-based safety training than respondents whose agency was not part of a hospital ( $p = .0313$ ). When the perpetrator of violence was a patient or family member, the respondents experienced verbal abuse the most (26%), then physical assault (16%) and exposure to bodily fluids (13%). Home health care aides whose agency was part of a hospital were more likely to receive violence-based safety training. Training is an important component of a workplace violence prevention program.

### Keywords

home health care aides; workplace violence; training; health promotion

### Introduction

Health care workers experience nonfatal injuries at frequencies and rates that are much higher than workers in other industries. In 2015, there were 9,480 nonfatal workplace violence injuries that required days away from work among health care workers, which accounted for 59% of the nonfatal violence-related intentional injuries by other persons occurring in all industries combined.<sup>1</sup> In 2015, within the private health care and social assistance industry sector, the rate for nonfatal violence-related intentional injuries by other persons that required days away from work as a result of violence was 8.0 per 10,000 full-time workers, almost 5 times greater than the overall rate in private industry of 1.7 per 10,000 full-time workers.<sup>2</sup>

Although, workplace violence is considered by many researchers to be underreported, it is consistently identified as one of the primary safety concerns of workers in the home health

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care industry.<sup>3–5</sup> Previous studies have reported that between 3% and 45% of home health workers reported being threatened or being physically assaulted by clients, family members, and neighbors.<sup>3,4,6,7</sup>

Nine states (California, Connecticut, Illinois, Maine, Maryland, New York, New Jersey, Oregon, and Washington) have laws requiring health care facilities to have a workplace violence prevention program. New York's law covers public employers only.<sup>8</sup> In September 2011, the New Jersey Violence Prevention in Health Care Facilities Act<sup>9</sup> was enacted and required acute care, psychiatric, and nursing home facilities to develop workplace violence prevention programs that included the following components: violence prevention policies, reporting systems for violent events, violence prevention committees, written violence prevention plans, violence risk assessments, post-incident response, and violence prevention training. Health care facilities in New Jersey were required to fully comply with these components by June 6, 2012. Home health care aides, as defined by the act, help people with their daily living activities. Home health care aides are covered by this regulation only if their agency is part of an acute care hospital.

The purpose of this descriptive study was to examine (1) the violence-based safety training that certified New Jersey home health care aides received from their employer, (2) home health care aides' experience with workplace violence, (3) how safe they felt at work, (4) what health promotion classes they received and/or participated in, and (5) what safe driving information was provided and whether they were involved in a motor vehicle accident.

## Methods

### Study Population

This descriptive study examined samples drawn from the population of certified home health care aides ( $N=46,787$ ) in the state of New Jersey as of June 30, 2012. A random sample of 4,000 home health care aides were selected from a data frame obtained from the State of New Jersey Division of Consumer Affairs.

### Data Collection Instrument

A four-page survey, developed by the investigators, included multiple choice, open-ended, and Likert-scale questions and included the following five sections: violence-based safety programs in health care (seven questions), experienced violent events (eight questions), health promotion (four questions), driving (three questions), and background (nine questions). The survey was developed from the New Jersey Violence Prevention in Health Care Facilities Act<sup>9</sup> and previously published surveys.<sup>10,11</sup> The survey was pilot-tested in a sample of home health care aides to ensure that the questions were understandable and yielded relevant information. In response to comments received, the survey was revised prior to its use. The survey, which took approximately 20 minutes to complete, established whether the respondent worked as a home health care aide in New Jersey, and asked for demographic information such as gender, race, years of experience, and level of education.

The majority of the survey questions focused on topics specific to the New Jersey Violence Prevention in Health Care Facilities Act and aligned with the Act's requirements, such as

training received about violence-based safety (i.e., techniques to de-escalate and minimize violent behavior), and experience with work-related violence during the previous 12 months (included any activities associated with their job or events that occurred in their work environment). This survey enabled participants to provide information about the frequency of violent events by perpetrator type (patient, family member, coworker, or boss).

To determine employer-provided workplace violence training content, questions were asked regarding policies, procedures, risk factors, de-escalation techniques, self-defense, reporting, and resources (see Table 1). The following types of violence were specifically addressed in the survey: verbal assaults, physical assaults, robberies and muggings, property thefts, vandalism, sexual harassment/assaults, exposure to bodily fluids, and bullying/intimidation. Verbal assaults were defined as being yelled at, shouted at, or sworn at; threat of physical harm with or without a weapon; or a threat to damage or steal personal or workplace property. Physical assaults were defined as an attack or attempted attack with or without a weapon (including hands/fists) with or without an injury. Robberies and muggings were defined as taking or attempting to take personal (e.g., purse) or workplace (e.g., medicine, medical supplies) property by force or threat of force. Property theft was defined as taking of personal or workplace property without personal threat, attack, or bodily harm (e.g., stealing medical supplies out of worker's car). Vandalism was defined as damage or destruction to personal (e.g., graffiti on worker's car) or workplace (e.g., breaking medical supplies) property. Sexual harassment was defined as unwanted, offensive sexual behavior or comments (verbal or nonverbal); sexual assault was defined as attacks of unwanted sexual contact, including rape, attempted rape, grabbing, or fondling. Exposure to bodily fluids occurred when home health care aides were exposed *on purpose* to another person's blood, saliva, urine, or any other bodily fluid. Bullying/intimidation was defined as less desirable assignments.

To determine how safe the respondent felt at work, a 10-point Likert scale was used. Respondents who never felt safe at work selected the lowest value (1) and respondents who always felt safe at work selected the highest value (10) in the scale. Only 11% of respondents who answered this question recorded a value of 5 or less. Therefore, this scale was condensed where all respondents who recorded 5 or less were treated as the same ordinal value when comparing this response with other responses to prevent small cell statistical issues.

The survey included a section on health promotion. The respondents were asked whether their employer offered wellness classes on smoking cessation, diet and nutrition, physical activity, and stress management and whether they participated in the wellness classes.

The respondents were asked whether their employer ever gave them any information about safe driving, such as training, safety talks, videos, or information about traffic laws or company policies. They were also asked whether they were involved in a motor vehicle accident while on the job in the past 12 months.

## Survey Methodology

This descriptive study was approved by the National Institute for Occupational Safety and Health (NIOSH) Institutional Review Board. A tracking number was assigned to all potential respondents and used for mailing purposes only. The survey was mailed to the home addresses of home health care aides in the random samples, along with a whistle (incentive), an introduction letter that described the study purpose, directions for participation, and information about informed consent. No personal identification was requested on the survey. Updated addresses were obtained for all undeliverable surveys prior to the next mailing. Participants returned the completed survey in postage-paid envelopes. A second mailing was sent to nonresponders 4 weeks after the first mailing. Two weeks later, a reminder postcard was sent to encourage completion of the survey. At the completion of the last mailing in 2013, all tracking numbers were deleted from the electronic databases so that no personal identifiers were able to be tracked back to individual respondents.

A total of 414 surveys were returned as undeliverable from either the first or the second mailing. A total of 677 surveys were returned for a response rate of 17%. Of the 677 returned surveys, 136 did not work as a home health care aide in New Jersey, and 28 were returned blank. Due to the anonymous nature of the survey, no link between the final data set and the nonreturned surveys was kept. A total of 513 surveys were used for analysis consisting of home health care aides who worked in New Jersey.

## Data Analysis

All analyses were performed using the SAS version 9.3 software (SAS Institute Inc., Cary, North Carolina) employing the PROC FREQ procedure with the Cochran-Mantel-Haenszel option to assess associations between variables. When both variables were nominal, the general association test was used. When one variable was nominal, the test on row mean scores was used.

## Results

### Demographics

Ninety-four percent of the respondents were female (see Table 2). Eighty-one percent of the respondents were older than the age of 40 years. Fifty percent of respondents had a high school diploma/general educational development, and 33% had a college degree or some college.

### Violence-Based Safety Training

Overall, 69% of respondents received violence-based safety training (data not shown). A higher proportion of respondents whose agency was part of a hospital received violence-based safety training (82%) than respondents whose agency was not part of a hospital (67%) ( $p = .0313$ ) (data not shown).

### Violent Events

Overall, 35% of respondents experienced at least one of the violent events listed in the survey from a patient, family member, coworker, or boss during the past year. Thirty-four

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percent of the respondents experienced at least one of the violent acts listed when the perpetrator was either a patient or family member (see Table 3). Given the violent events listed in the survey, the most likely event to be experienced when a perpetrator was a patient or family member was verbal abuse (26%), followed by physical assault (16%) and exposure to bodily fluids (13%) (see Table 3). The proportion of respondents who experienced at least one type of violence listed in our survey when the perpetrator was a coworker or boss was 6%. When the perpetrator was a coworker or boss, the respondents experienced bullying/intimidation the most (5%), followed by verbal abuse (2%) (see Table 3).

Age was significantly related to experiencing a verbal assault ( $p = .0003$ ), physical assault ( $p = .0001$ ), sexual harassment ( $p = .0349$ ), and any assault ( $p = .0105$ ) (see Table 4).

In general, as the age of the home health care aides increased, the amount of verbal and physical violence they reported as having experienced decreased.

Gender was significantly related to experiencing a physical assault and bullying/intimidation. Males experienced a significantly higher rate of physical assaults ( $p = .0043$ ); however, females experienced a significantly higher rate of bullying/intimidation ( $p = .0158$ ). The respondents' race was significantly related to experiencing a verbal assault ( $p = .0001$ ), physical assault ( $p = .0189$ ), and any assault ( $p = .0120$ ); a higher proportion of Native American Indians experienced violent events than blacks, followed by whites (Table 4).

Education was significantly related to experiencing a verbal assault ( $p = .0155$ ), physical assault ( $p = .0059$ ), bullying/intimidation ( $p = .0031$ ), and any assault ( $p = .0061$ ) (data not shown). In general, as the education of the home health care aides increased, the amount of bullying/intimidation, verbal and physical violence they experienced increased.

### **Safety at Work**

With regard to how safe the respondent felt at work, 46% of the respondents recorded the highest value (10, always felt safe) on the Likert scale. Furthermore, another 32% recorded either an 8 or a 9 on the scale. Respondents who experienced an assault/violence generally felt less safe at work than respondents who did not experience an assault/violence when the perpetrator was a patient or family member (Table 5).

### **Health Promotion Classes**

Generally, home health care aides whose agency was part of a hospital had better access to wellness programs than home health care aides whose agency was not part of a hospital. However, the percentages of respondents who actually participated in wellness programs did not differ whether their agency was or was not part of a hospital (Table 6).

### **Driving Information**

Thirty-four percent of the respondents were provided information on safe driving while on the job (data not shown). Eleven respondents reported that they had a motor vehicle accident (data not shown).

## Discussion

Hospitals are required by the New Jersey law on workplace violence prevention and the regulations implementing the law to provide their employees with violence prevention training.<sup>9,12</sup> Training is an important component to workplace violence prevention programs and can increase awareness of what constitutes verbal and physical workplace violence, of prevention strategies, and of responses if it does occur.<sup>13</sup> Vladutiu et al<sup>11</sup> found that 66.5% of home health and hospice care providers reported receiving workplace violence prevention training when newly hired or as recurrent training, which is similar to our overall training percentage of 67%. Home health care aide training should be designed to increase confidence and capacity to plan for safety, establish and maintain appropriate work boundaries, and de-escalate violence and harassing situations.<sup>14</sup> Home care workers, case managers, and consumer employer participants strongly agreed they needed training on preventing or responding to workplace violence and sexual harassment.<sup>6</sup> Suggested components for home care worker-specific training included defining work boundaries and identifying warning signs for unsafe workplaces, assertiveness and communications skills, how and where to access support resources, how to protect oneself from physical and sexual threats, and how to de-escalate and escape abusive situations.<sup>6</sup> Gross et al<sup>15</sup> found that although most home health and hospice care agencies offered workplace violence training, not every worker performing patient care was required to receive the training.

The verbal abuse rate of 26% that home health care aides experienced in the past 12 months in our study is similar to other study results. Quinn et al<sup>16</sup> found that 18.8% of respondents experienced one or more incidents of verbal violence from a client or family member in the past 12 months. Respondents who experienced verbal assaults felt unsafe at work. Blando et al<sup>17</sup> found that verbal abuse was a significant predictor of whether staff felt safe or not and that this could impact job satisfaction, job performance, and retention of nurses. Given that verbal abuse was most common if the perpetrator was a patient or family member, then it is important for training to include prevention strategies and reporting procedures for verbal abuse and assaults.

Our study reported a higher percentage (16%) of home health care aides experiencing physical assaults by a patient or family member than a previous study. Quinn et al<sup>16</sup> showed that 6.6% of home care aides in Massachusetts experienced any physical violence from a client or family member in the past 12 months. Reasons for the higher percentage we found could be the following: media coverage of workplace violence, and home health care aides who experienced a physical assault were more likely to complete the survey.

Several studies have looked at health promotion for home health care aides. For the COMmunity of Practice and Safety Support (COMPASS) total worker health study among home care workers, the 12-month intervention was a scripted and peer-led meeting, and involved education on safety, health, and well-being; goal setting and self-monitoring; and structured social support.<sup>18</sup> The intervention produced significant improvements in fruit and vegetable consumption. Safety compliance increased and participants reported making more specific safety changes (correcting home hazards, talking with clients regarding safety, adopting new tools for lifts/transfers) during the intervention months than during the 6

months before intervention. Muramatsu et al<sup>19</sup> found that older home care aides aged 50+ years reported increased time doing the physical activity (stretching or strengthening exercises) that they delivered to their clients ( $p = .027$ ). Pohjonen and Ranta<sup>20</sup> looked at the effects of worksite physical exercise intervention on physical fitness, perceived health status, and work ability among home care workers. They found in the 1-year follow-up measurements that body fat had decreased by 4% and dynamic muscle performance and maximal oxygen consumption in relation to body mass had increased by 30% to 38% and 7%, respectively, in the intervention group. The differences between the intervention and control groups in these outcome variables were significant. Despite the age of the subjects, these positive effects of worksite exercise were observed, and the changes were consistent during a 5-year period. Our study showed that while physical activity and stress management wellness classes were more likely to be offered by home health care agencies that were part of a hospital than home health care agencies not part of a hospital, the number of people using these services did not significantly differ regardless of who operated their respective home health care agency. Hospitals could have more resources and personnel to offer wellness classes to their employees.

## Limitations

Limitations of this study include generalizability, reporting bias, recall bias, and a low response rate. Although the home health care aides in this study represented all home health care aides in New Jersey, the home health care aides included in this study are likely not representative of home health care aides throughout the nation. Individuals who experienced a violence event may be more likely to respond to the survey, which would overestimate our assault proportions. To minimize recall bias, recording of violent events was limited to the previous 12 months. It is possible that more extreme violent events were more likely to be remembered than less extreme violent events.<sup>21,22</sup> To encourage home health care aides to complete the survey, an incentive was utilized as well as a second mailing and a reminder postcard.

## Conclusions

Home health care aides receive violence-based training and health promotion classes and experience workplace violence from patients and family members. The New Jersey regulations require hospitals to have violence prevention policies, reporting systems for violence events, violence prevention committees, written violence prevention plans, and violence prevention training. When a home health care agency is a part of a hospital, then the above components also pertain to the home health care agency.

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**Table 1.**

Various Violence-Based Safety Training Components Provided by Survey Participant's Employers.

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1. Review of the agency's violence-based safety policies
2. Identification of predicting factors for violence
3. Verbal methods to stop aggressive behavior
4. Physical methods to stop or avoid aggressive behavior
5. Obtaining a history on a patient with violent behavior
6. Techniques for restraining violent patients
7. Self-defense if preventive action does not work
8. Requirements and procedures for reporting violence
9. Location and operation of safety devices
10. Resources for employee victims of violence

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**Table 2.**

## Demographics of Study Participants.

Variable	n (%)
Age, years	
20–29	30 (6)
30–39	64 (13)
40–49	131 (27)
50–59	180 (37)
60 and above	91 (17)
Gender	
Male	25 (6)
Female	420 (94)
Race <sup>a</sup>	
White	70 (14)
Black	208 (42)
Asian	25 (5)
Native <sup>b</sup>	11 (2)
Hispanic	175 (35)
Other	12 (2)
Level of education	
Less than high school	77 (17)
High school diploma/GED	231 (50)
Some college	106 (23)
Bachelor's degree	37 (8)
Some graduate	10 (2)
Part of a hospital	
Yes	57 (12)
No	417 (88)
Employer <sup>a</sup>	
Home health agency	422 (82)
Personal care home	61 (12)
Contractor	3 (0.6)
Independent provider	13 (3)
Assisted living facility	921 (8)
Hospice	77 (15)
Other	22 (4)

Note. GED = general educational development.

<sup>a</sup>Not mutually exclusive.

<sup>b</sup>American Indian or Alaskan, Hawaiian/Pacific Islander.

**Table 3.**Workplace Violence by Perpetrator ( $N=513$ ).

	Patient or family member		Coworker or administrator	
	<i>n</i>	Proportion	<i>n</i>	Proportion
Verbal abuse <sup>a</sup>	128	26	9	2
Physical assault <sup>a</sup>	79	16	3	1
Exposure to bodily fluids <sup>a</sup>	66	13	4	1
Bullying/intimidation <sup>a</sup>	42	9	19	5
Sexual harassment/assaults <sup>a</sup>	23	5	5	1
Robbery and mugging <sup>a</sup>	15	3	3	1
Property thefts <sup>a</sup>	10	2	3	1
Vandalisms <sup>a</sup>	9	2	5	1
Any assaults	172	34	28	6

<sup>a</sup>Not mutually exclusive.

Table 4. Proportion of Home Health Care Aides Experiencing Workplace Violence When the Perpetrator Was a Patient or a Family Member by Selected Variables.

	Verbal assault		Physical assault		Sexual harassment		Exposure to bodily fluids		Bullying/intimidation		Any assault	
	Proportion	p value <sup>a</sup>	Proportion	p value <sup>a</sup>	Proportion	p value <sup>a</sup>	Proportion	p value <sup>a</sup>	Proportion	p value <sup>a</sup>	Proportion	p value <sup>a</sup>
Age, years												
20-29	47		33		7		13		17		47	
30-39	35		25		7		17		11		42	
40-49	29		20		8		12		8		35	
50-59	22		9		3		13		9		32	
60 and above	18	.0003	10	<.0001	1	.0349	15	.9047	7	.176	26	.0105
Gender												
Female	26		15		5		13		22		33	
Male	30	.6606	36	.0043	8	.4202	21	.2677	7	.0158	44	.263
Race												
White	31		17		7		16		18		39	
Black	35		22		4		16		7		41	
Asian	17		17		4		0		13		24	
Native American	50		29		29		0		14		50	
Hispanic/Latino	15	.0001	9	.0189	5	.0451	12	.1474	7	.089	26	.012
Part of a hospital												
Yes	30		19		4		16		7		39	
No	25	.4316	16	.5244	5	.6011	13	.6289	9	.599	34	.4762
Employer												
Assisted living	49		36		7		20		15		53	
Home health agency	18		10		3		10		5		26	
Hospice	31		20		10		20		18		45	
Personal care home	43	<.0001	22	<.0001	4	.1226	21	.05	19	.0007	0	<.0001

<sup>a</sup>Based on chi-square general association test.

**Table 5.**

Mean of Safety of Work Scale by Assault Experience in the Last Year When the Perpetrator Was a Patient or a Family Member.

	Verbal assault		Physical assault		Sexual harassment		Exposure to bodily fluids		Bullying/intimidation		Any assault	
	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes	No
Safety at work												
<i>M</i>	7.6	8.8	7.7	8.6	6.7	8.6	7.9	8.8	6.9	8.6	7.8	8.8
<i>P</i> value <sup>a</sup>					<.0001	<.0001		<.0001		<.0001		<.0001

<sup>a</sup>Based on chi-square row means score differ test.

**Table 6.**

Proportion of Home Health Care Aides Offered and Participated in Health Promotion Classes.

Wellness classes	Home health care agency		<i>p</i> value <sup>a</sup>
	Part of a hospital	NOT part of a hospital	
	Proportion	Proportion	
Stop smoking			
Offered by agency	48.5	32.5	.0676
Participated in class	30.7	29	.895
Diet and nutrition			
Offered by agency	62.5	48.5	.1228
Participated in class	37.9	37	.92
Physical activity			
Offered by agency	61.9	45.3	.0429
Participated in class	40	33.1	.4484
Stress management			
Offered by agency	65.1	46.5	.0226
Participated in class	36.7	36.7	.9968

<sup>a</sup>Based on chi-square general association test.