Abuse and Violence During Home Care Work as Predictor of Worker Depression

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Abstract

Objectives. Home care workers provide care without the normal protections afforded in the hospital. This study describes the prevalence of abuse and violence experienced by home care workers and its relationship to workers' depression. Methods. A two-wave telephone survey (N = 1,643) was conducted to assess the prevalence of abuse and prevalence/incidence of workers' depression.

Results. Abuse was significant for elevated odds for depression, with a dose effect. Violence was highly associated with depression.

Conclusions. Preventive and early intervention measures should be taken to reduce mental health consequences of abuse and violence among home care workers.

KEYWORDS. Abuse, depression, elder abuse, home health care, mental health, nursing, nursing assistant, nurse's aide, personal care, occupational disease, violence, work stress, workplace violence
Abuse and violence towards workers are present in many health care work environments, and risk factors are similar across work settings (Duhart, 2001; Gerberich et al., 2004; Loveless, 2001; McCall & Horwitz, 2004; NIOSH, 2002). These risk factors include care of those with cognitive impairments, dually diagnosed with mental illness and a substance abuse disorder, and those with a history of past violence (NIOSH, 2002). When the workplace is a private home, additional risk factors are present, including working alone, and exposure to homes with weapons (Fazzone et al., 2000; Fitzwater & Gates, 2000; Murphy, 2004; Powell & Lloyd, 2001). The normal protections that workers have in hospital settings (e.g., co-workers, security guards, alarm systems) are not present in home care. In the absence of employer safety policies and programs, home care workers must rely on their own resources to deal with abuse and violence (Barling, Rogers, & Kelloway, 2001). Two kinds of violence predominate in home care work. First, when the consumer of home care lives in an unsafe neighborhood, the worker can fall victim to criminal activity en route to the home (Fazzone et al., 2004; Loveless, 2001; Fitzwater & Gates, 2000; Schulte et al., 1998). More commonly, the perpetrator of violence is the consumer or a family member who may become abusive or violent during the delivery of service (Loveless, 2001). Sometimes these workers experience vicarious trauma (Salston & Figley, 2003) as they witness the consumer being abused by a family member. Exposure to violence on the job can result in a continuum of outcomes, the most severe of which is homicide (Jenkins, l996a,b; Moracco et al., 2000), but also disabling injuries, non-fatal injuries with and without lost work time (Oregon DCBS, 1996; McCall & Horwitz, 2004; McGovern et al., 2000), post-traumatic stress disorder (Matthews, 1998), anxiety, fear of future violence, reduced job satisfaction, and changing jobs (Rogers & Kelloway, 1997; Schat & Kelloway, 2000; Walsh & Clark, 2003; Barling, Rogers, & Kelloway, 2001). Once abusive or violent events occur in the
home, the home care worker must return to deliver care, and fears reoccurrences of these events. This fear can be debilitating, and is linked to negative mental health outcomes (Barling et al., 2001).

TYPES OF VIOLENCE AND PREVALENCE IN HOME CARE

Although aggression and violence towards health care workers has been studied in a number of health care occupations, less is known about abuse and violence among home care workers, a larger and more vulnerable population (Bussing & Hoge, 2004; Kendra, 1992; Kendra et al., 1996; Kendra & George, 2001; McPhaul, 2004). The few existing studies agree that verbal abuse is the most common form of abuse, with abuse by patients more common than by relatives. Barling et al. (2001) surveyed 399 professional home care workers (nurses, social workers, child management specialists, and behavior management specialists), and found the six-month prevalence of verbal aggression (by item) to range from 17 to 33%, and physical aggression to range from 3 to 7%. In a German sample of home care professional workers (N = 721), Bussing and Hoge (2004) reported that verbal aggression by patients occurred most frequently, followed by verbal aggression by relatives, physical violence by patients, and relatively rarely, physical violence by relatives. Only one actual prevalence rate was provided; 23% of respondents had ever been confronted by some physical assault by relatives of their patients, and this was the lowest mean score (1.15 on a 1-5 scale, with 1 representing "No violence"). Kendra, working with home health aides in the Midwest, found that 11.5% of aides experience angry and abusive patients or families about half the time, but only 1% or fewer had personal injuries, sexual comments, or overt sexual harassment on at least half of visits (Kendra, 2006, personal communication). In a small sample of Midwest U.S, home care workers (N = 43), 52% reported being exposed to verbal abuse (Sylvester & Reisener, 2002). Working with "difficult clients" and
exposure to sexual comments were associated with increased worker stress. In a recent survey of past-year experiences of various levels of violence in Irish care attendants (N = 88), 55% experienced verbal abuse, 24% were subjected to threats, 36% had been physically assaulted by a patient (Northeastern Health Board, 2004), with 45% of workers experiencing physical injuries (36% minor injuries, 9% major injuries). Workers rated the emotional impact of violence on a 5-point scale; 25% rated the impact of verbal abuse as moderate or severe, 30% for threats, and 46% for physical assaults. These limited numbers of studies that have dealt with abuse and violence toward home care workers have demonstrated that this is a common event, and that it has the potential to be stressful for the worker who delivers this care.

Secondary Trauma

Workers also witness abuse towards their clients by family members, which can sometimes result in secondary trauma (Salston & Figley, 2003). This phenomenon has been well-studied in psychotherapists who care for abuse victims, where burnout, compassion fatigue, and PTSD outcomes have been demonstrated (Figley, 2002). Prosser et al. (1996) found that community workers experienced higher rates of burn-out than hospital workers dealing with similar mental health patients. Home care workers who deliver care to elderly consumers are not trained as professional therapists, do not receive training in managing the emotional demands of their work, nor do they have clinical supervision of their work in a way that would mitigate the emotional impact of these exposures. In addition, the exposure of home care workers is more direct and prolonged, as workers spend many hours per day with the client and family. Rather than hearing about abuse, they may witness it directly, which could increase the psychological impact of the exposure.
Depression and Violence

The physical hazards of home care work have recently become a focus of researchers, but there has been less research on the mental health of home care workers (Aronson & Neysmith, 1996; Glazer, 1993; Szasz, 1990; Denton, Zeytinoglu, & Davies, 240D. Recent studies of home care workers have focused on post-traumatic stress disorder (Matthews, 1998; Walsh & Clark, 2003), and anxiety, with fear of future violence (Matthews, 1998; Walsh & Clark, 2003; Rogers & Kelloway, 1997; Schat & Kelloway, 2000). Although exposure to abuse and violence towards workers has not been studied related to depression, numerous studies have demonstrated that both, witnessed violence and direct experience of violence, increase the risk of depression in adults and children (Van Hook, 1999; Fekkes, Pojpers, & Verloove-Vanhorick, 2004; Ward et al., 2001; Zahid et al., 1999: Inoue et al., 2006).

Mental disorders in the workplace, and depressive symptoms in particular, have important consequences for the workers' quality of life, the costs and utilization of health care, and work productivity (de Lange et al., 2003; Keita & Sauter, 1992; Sauter, Murphy, & Hurrell, 1990). In addition, they have the potential to influence the quality of care provided to the consumer of home care, as the emotional availability and support that is offered to the consumer is an important component of care. Because they work in isolation, home care workers also lack social support which could buffer the psychological effects of untoward events (Fazzone et al., 2000). In order to more fully understand the workplace hazards of home care workers, the purpose of this study is to describe the prevalence of abuse and violence experienced by these workers as well as to examine its relation to depression.
METHODS

Sample

A random sample of 4,500 home care workers (English or Spanish speakers only) was selected from 72,000 home care workers listed on a payroll inventory in a large west coast city in March 2003. Introductory letters describing the project, with a stamped postcard insert to decline participation, were mailed to these workers. We received 230 refusal postcards during the month following the mailing. The final response rate for completed calls at end of Wave 1 was 88% (N = 1,643). For Wave 2, 1,798 home care workers still working in home care responded to the survey (95% response rate for those successfully contacted).

Procedure

Calls commenced in June 2003 and were completed in September 2003. Five home care workers (two Spanish-speaking) were trained in the interview protocol, including basic telephone interviewing techniques and the 30-minute computer-assisted interview (CATI). Five calls were made at various times of the day before a telephone number was abandoned. The questions were structured, with forced choice responses for the majority of the interview. A $10 incentive payment was provided to compensate for the 30-minute interview. At the end of the Wave 1 interview, respondents were asked to consent to another shorter telephone interview six months later. An incentive payment of $5 was provided for the Wave 2 interview. These calls commenced in December 2003 and were completed in February 2004.

Variables

Abuse Scale. The interview opened with general questions about the workers' home care situation, then questions about the emotional demands of the work, followed by abuse items. These items were adapted from a field survey of home care workers by Kendra (2002) with
additional items, based on interview of home care worker focus groups we conducted in the year prior to the survey. In order to neutralize their impact, a normalizing statement prefaced each question. Respondents were then asked to indicate how frequently each situation happened in the past six months. Items were of two varieties. Some items assessed witnessing abuse of the consumer by others, and some were about direct abuse or violence directed towards the worker from either the consumer or the family. We asked about witnessing a family member who was neglectful, verbally abusive, or physically abusive to the consumer. Items also included verbal abuse or anger directed toward the worker from the consumer or the family. We then got more specific, asking about accusations of stealing, criticism, sexual harassment, and prejudicial remarks. We also asked about having around consumers or family members who were under the influence of drugs or alcohol, who asked for "extras" beyond the scope of work (e.g., cooking for family, doing family laundry), and who made unreasonable demands such as heavy cleaning, moving furniture, and so forth. A 5-point Likert scale was used to record responses (never/seldom/sometimes/often/always). Internal consistency was satisfactory for these 11 items (alpha = .83).

Violence. During Wave 2, respondents were asked to report the frequency of any of the five categories of violence that they personally experienced. The five categories were presented from the most severe to the least. Past six month items included: "assaulted by a consumer where it required an ER or doctor visit" and "assaults from a consumer that led to pain or soreness that lasted overnight but did not have to see a doctor or go to the ER." Past month items included "mild soreness or a minor injury from being assaulted by a consumer," "consumer had physical contact with you but no injury resulted," and "consumer threatened to assault you but did not have physical contact." Respondents were asked to indicate how often the event occurred during
the time frame of the item. Because of low frequencies, items were recoded into never versus any violence at each of these five levels of violence. A normalizing statement that defined violence was made prior to asking the violence items. Respondents were told that "the next questions ask about any experience of being slapped, pushed, shaken, scratched, bitten, or hit by a client during your work as a home care provider. We are also interested in knowing if you have been threatened with any of these actions. Sometimes consumers who have a loss of memory or pain can do these things without intending to cause harm. Other times, consumers express their anger or frustration in physical ways."

**Depression.** Depression was measured using the 20-item Revised Center for Epidemiologic Studies Depression Scale (RCES-D). This scale updates the most commonly used screening scale in large epidemiologic studies (CES-D), to include a current psychiatric nosology of major depression. The revised CES-D has improved content validity over the original CES-D while retaining the good psychometric properties of the original version (Muntaner & Barnett, 2000). Response values are on 5-point Likert scale, with anchor points in terms of frequency of symptoms, ranging from "Rarely or none of the time (less than one day)" to "Nearly every day for two weeks." An algorithm is used to derive symptom group scores that are based on the nine symptom groups listed in the DSM-IV. The category of "subthreshold depressive disorder or greater" was used as the depression indicator and was defined as a summed RCES-D score of 16 or above. Prevalent cases were used for Waves 1 and 2, and an incident case was flagged if the respondent had clinically irrelevant symptoms at Wave 1 (score of lower than 16; the reference category), and at least subthreshold depression at Wave 2.

**Covariates.** Three covariates were used in the analyses. Age was used as a continuous variable. Marital status was collated so that married was the reference, versus any other. A
variable was created to indicate the presence of other depressogenic stressors. If the home care worker responded "yes" to any of four life events within the past year (separated or divorced, lost a job, death of spouse or significant other, and illness or death of close family member or friend), they were coded as positive for depressogenic stressor.

**Analysis**

Descriptive analysis included the past six-month prevalence of abuse and violence. Abuse variables were recoded to combine the never and rarely categories as reference category, and the indicator category was created by combining responses for sometimes, often, and always. Bivariate associations were examined by estimating odds of the home care worker having depression in relation to each abuse variable, adjusting for age, marital status, and the presence of any depressogenic stressor (Table 1). Then an abuse index was constructed by summing the abuse items (range 12-60). Since most of the sample recorded no abuse, the index was classified into categories that included no abuse (12), low abuse (score 13-17 points), high abuse (score 18-60 points). Logistic regression models were estimated using these categories to detect a dose response of the odds of having depression, with adjustment for covariates.

The prevalence of violence at each of five levels (threats, contact without injury, mild injury, moderate injury, injury requiring medical attention) was obtained by dichotomizing responses to no versus any violence. The reference group for this analysis contained those reporting no violence. Responses were grouped so that threats, contact without injury, or mild injury were classified as one group, moderate injury or injury requiring medical attention as the second group, and violence in both of these groups as the third group. The odds of depression at Wave 2 were calculated for each group, using the violence-free group as the reference group.
TABLE 1. Abuse by Consumers or Family Members and Odds of Depression in Home Care Workers (N = 1643)

<table>
<thead>
<tr>
<th>Abuse Variable</th>
<th>Percentage of Home Care Workers responding “Often” or “Always” to item, past six months</th>
<th>Odds of Home Care Worker Depression*, Wave 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>A family member who is neglectful of the consumer</td>
<td>136</td>
<td>8.5</td>
</tr>
<tr>
<td>A family member who is verbally abusive to the consumer</td>
<td>55</td>
<td>3.4</td>
</tr>
<tr>
<td>A family member who is physically abusive to the consumer</td>
<td>10</td>
<td>.6</td>
</tr>
<tr>
<td>A family member who is angry or verbally abusive toward you</td>
<td>73</td>
<td>4.6</td>
</tr>
<tr>
<td>A consumer who is angry or verbally abusive to you</td>
<td>210</td>
<td>13.2</td>
</tr>
<tr>
<td>A consumer or family member who accuses you of stealing</td>
<td>63</td>
<td>4.0</td>
</tr>
<tr>
<td>A consumer or family member who is drunk or high</td>
<td>19</td>
<td>1.2</td>
</tr>
<tr>
<td>A consumer or family member who criticizes you</td>
<td>201</td>
<td>12.7</td>
</tr>
<tr>
<td>A consumer or family member who makes prejudicial remarks about you</td>
<td>69</td>
<td>4.4</td>
</tr>
<tr>
<td>Families who request “extras” for themselves, such as cooking for them, doing their laundry</td>
<td>50</td>
<td>3.2</td>
</tr>
<tr>
<td>A consumer or family member who makes demands that seem unreasonable, for example, doing very heavy cleaning</td>
<td>76</td>
<td>4.8</td>
</tr>
</tbody>
</table>

*Depression = subthreshold or greater last six months with reference group = no clinically significant symptoms last six months, adjusted for age, marital status, presence of other depressogenic stressors. *reference group, those responding “Never,” “Seldom,” “Sometimes.”

RESULTS

Sample Description

The sample of home care workers was primarily women, with mean age of 52 (Table 2). Half of the respondents were married and one-fourth had additional education after high school. Racially, there was one-third African American, one-fourth Caucasian, and the remainder Hispanic. Slightly over half were English-speaking, with three-fourths holding citizenship in the United States. Half of the respondents had experienced a depressogenic life event in the past year.
Abuse and Violence

One or more abusive situation, occurring at least sometimes in the past six months, affected 20% of workers. The most common abuse types experienced by workers themselves were criticism (12%) and verbal abuse (18%), with some making prejudicial remarks (4%). Witnessing neglect of the consumer (8% sometimes to always) was more common than verbal

### TABLE 2. Description of the Sample, Home Care Workers, Los Angeles 2003 (N = 1643)

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>52.0 (×)</td>
<td>13.6(SD)</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1407</td>
<td>85.6</td>
</tr>
<tr>
<td>Male</td>
<td>236</td>
<td>14.4</td>
</tr>
<tr>
<td>Marital Status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>388</td>
<td>24.3</td>
</tr>
<tr>
<td>Married</td>
<td>779</td>
<td>48.9</td>
</tr>
<tr>
<td>Separated</td>
<td>94</td>
<td>5.0</td>
</tr>
<tr>
<td>Divorced</td>
<td>172</td>
<td>10.8</td>
</tr>
<tr>
<td>Widowed</td>
<td>161</td>
<td>10.1</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; HS</td>
<td>526</td>
<td>33.1</td>
</tr>
<tr>
<td>HS graduate</td>
<td>644</td>
<td>40.5</td>
</tr>
<tr>
<td>Some college</td>
<td>287</td>
<td>18.0</td>
</tr>
<tr>
<td>Completed college</td>
<td>104</td>
<td>6.5</td>
</tr>
<tr>
<td>Graduate school</td>
<td>30</td>
<td>1.9</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>535</td>
<td>32.5</td>
</tr>
<tr>
<td>Caucasian</td>
<td>399</td>
<td>24.3</td>
</tr>
<tr>
<td>Hispanic</td>
<td>709</td>
<td>43.2</td>
</tr>
<tr>
<td>Primary language</td>
<td></td>
<td></td>
</tr>
<tr>
<td>English-speaking</td>
<td>935</td>
<td>56.9</td>
</tr>
<tr>
<td>Spanish-speaking</td>
<td>708</td>
<td>43.1</td>
</tr>
<tr>
<td>Citizenship status</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Citizen</td>
<td>1207</td>
<td>75.5</td>
</tr>
<tr>
<td>Green card</td>
<td>366</td>
<td>22.9</td>
</tr>
<tr>
<td>Work permit</td>
<td>25</td>
<td>1.6</td>
</tr>
</tbody>
</table>
abuse (3%), or physical abuse (< 1%) by the family to the consumer. Four percent of workers stated that they were accused of stealing. Dealing with consumers or family members who were drunk or high and sexual abuse was rare (< 1%). About 4% of workers were asked to perform unpaid work ("extras") for family members beyond the work that they performed for consumers. Some were asked to perform work that was unreasonably demanding (5%) such as very heavy cleaning or lifting heavy furniture (Table 1). Nearly 5% of workers reported experiencing some form of violence while working in home care, with 40 workers (3.3%) in the past six months. Abuse with physical consequences (past six months) was rare, with < 1% of workers experiencing abuse that prompted a medical visit (five cases) or caused pain that lasted overnight or longer (1.8%). When workers were asked about milder violent events or threats in the past four weeks, 2.6% of workers indicated that they had experienced a threat of violence, an event that lead to mild soreness (1.8%), or did not result in an injury (2.0%).

**Depression**

At Wave 1, 6.6% of the sample had subthreshold depression or greater (possible, probable, or major depressive episode). This was slightly reduced at Wave 2 - 4.7%. The six-month incidence of subthreshold depression or greater was 2.6% for those who showed no clinically relevant symptoms at Wave 1.

**Relationship of Abuse and Violence to Depression**

Witnessing abuse by relatives (neglect, verbal, or physical abuse of the consumer) was associated with significantly elevated odds of depression in the home care worker, with odds ratios of 3.7-5.7 when compared with those that witnessed no abuse by relatives or rare abuse. Witnessing neglect was far more common than witnessing abuse. Home care workers who were the targets of verbal abuse (anger, verbal abuse, or criticism by a consumer or family member)
were also more likely to be depressed, with similar odds of depression (4.1-6.1). When workers cared for consumers or families that made unreasonable demands or asked for unpaid extra services, the odds of depression ranged from 3.6 to 4.4 when compared with families not making these demands. Dealing with consumers or family members who were drunk or high was less associated with depression, and was statistically non-significant (Table 1). When compared with those with no abuse at Wave 1, respondents with low-level abuse had nearly twice the odds of having subthreshold depression or greater six months later at Wave 2, and odds of 4.2 (95% CI 2.0-8.7) with high level of abuse at Wave 1. The odds for incident cases of depression at Wave 2 were lower, with high level of abuse at Wave 1 having nearly twice the odds of depression six months later (Table 3). Odds ratios for those with threats, contact but no injury, or mild injury in the past four weeks (1.4% of the sample) were 3.7 when compared with violence-free respondents. Those experiencing moderate violence or injury requiring medical attention in the past six months were rare (<1%) but experienced depression with seven times the odds of those reporting no violence. When the worker reported violence in both categories the odds of depression were significantly higher (OR 10.8) than when reporting no violence (Table 4).

**DISCUSSION**

Abuse and violence are present in home care, and are a risk factor for workers' depression. This finding expands on previous studies showing that violence toward home care workers is associated with negative emotional consequences (Barling et al., 2001). The prevalence of abuse and violence from this sample are considerably lower than those found in previous studies. The high response rate and large sample size of home care workers achieved in this survey lend support to the credibility of these prevalence rates. Previous studies have had
lower response rates, and their reported higher prevalence rates may represent bias towards reporting for those with past workplace exposures. Our study is consistent with previous findings that verbal abuse is more prevalent in home care than other forms of abuse. The significantly elevated odds for depression that are associated with each abuse variable, and the dose effect seen when comparing low and high levels of abuse with no abuse for Wave 2 prevalence and incidence, suggest that these stressors are implicated in the genesis of depression among home care workers. Although we did not measure anxiety, Barling et al, (2001) demonstrated that fear mediated the relationship between the experience of violence or abuse, and negative emotional reactions among professional home care workers (registered nurses, social workers, etc.). If this is true among professionals whose time spent in the home is fairly short, the effect on home care workers whose time in the home extends into hours per day would likely to be more pronounced. Although we cannot rule out depression that results from witnessing the decline into dementia that might be confounded with violence, there was not a significant relationship between witnessing sickness or pain and depression cross-sectionally. In future studies, additional data should be obtained to more fully understand the context for violence.

This study used the RCES-D, which is new and reflects current psychiatric nosology of this disorder (Eaton, 2001).In a sample of nursing assistants working in nursing homes, the past-week prevalence of major depression was J% using this new instrument (Geiger-Brown et al., 240q, compared with 4.7-6.6% in this sample. These nursing assistants perform similar work as home care workers, however they do so in a highly bureaucratic work environment, which has been associated with workers' depression (Geiger-Brown et al., 2004). For those familiar with the 20 original CES-D items (Radloff, 1977), our rate for depression using that scale at Wave I was 12.6%. Six-month prevalence rates for major depression in the Epidemiologic Catchment
Area study, using the Diagnostic Interview Survey (DIS), was 2.2% (ranging from 1.5 to 2.8% for five sites); these were based on DSM-III Criteria (Horwath & Weissman, 1995). Thus, there is considerable variability in community-based samples. Our rate for depression may be related to a healthy worker effect (i.e., only healthy workers remain employed, those with illnesses leave the workforce). When depression progresses to the point where major depression is present, remaining in the workforce may be difficult for some. Estimates of the impact of depression on absenteeism and lost productivity time range from 9.9 days per year to as many as 90 days per year (American Psychiatric Association, 2004), and for elderly and dependent consumers, these absence rates for caregivers may be intolerable.

**TABLE 3. Odds of Prevalent and Incident Depression for Home Care Workers Experiencing No, Low, and High Abuse (N = 1643)**

<table>
<thead>
<tr>
<th>Level of Abuse</th>
<th>Prevalent, Wave 1 OR (95% CI)</th>
<th>Prevalent, Wave 2 OR (95% CI)</th>
<th>Incident, Wave 2 OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Low</td>
<td>2.15 (1.26-3.67)</td>
<td>1.88 (.92-3.81)</td>
<td>0.85 (.29-2.55)</td>
</tr>
<tr>
<td>High</td>
<td>7.13 (4.32-11.76)</td>
<td>4.21 (2.04-8.70)</td>
<td>1.83 (.60-5.54)</td>
</tr>
</tbody>
</table>

**TABLE 4. Level of Violence Towards Home Care Workers and Odds of Depression**

<table>
<thead>
<tr>
<th>Level of Violence</th>
<th>N</th>
<th>%</th>
<th>OR</th>
<th>95% CI</th>
</tr>
</thead>
<tbody>
<tr>
<td>No violence</td>
<td>1102</td>
<td>96.5</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Low violence(^a) only</td>
<td>16</td>
<td>1.4</td>
<td>3.74</td>
<td>.82-17.12</td>
</tr>
<tr>
<td>High violence(^b) only</td>
<td>5</td>
<td>0.4</td>
<td>7.29</td>
<td>.78-68.24</td>
</tr>
<tr>
<td>Both low and high violence</td>
<td>19</td>
<td>1.7</td>
<td>10.81</td>
<td>3.87-30.19</td>
</tr>
</tbody>
</table>

Descriptors, levels of violence: \(^a\)Once or more in past four weeks experienced threats, physical contact without injury or mild injury. \(^b\)Once or more past six months experienced injury with soreness lasting overnight or requiring medical attention. \(^\circ\)Depression = subthreshold or greater last six months with reference group = no clinically significant symptoms last six months.
Although major depression is often the major focus of workplace studies, there is renewed interest in the role of subthreshold depression on functional impairment (Pincus, Davis, & McQueen, 1999). Wells investigated the functioning and well-being of patients with depression, compared with those with other chronic illnesses, and found that subthreshold depression was comparable or worse than hypertension, diabetes, advanced coronary artery disease, angina, arthritis, back problems, lung problems such as emphysema and bronchitis, and gastrointestinal disorders. Adding cases where subthreshold depression was present (Wells et al., 1989) strengthens this study.

**Future Directions**

Given the size of the home care workforce in the United States, estimated to be over 663,000 home health aides and 567,000 personal care workers (BLS, 2005) not including the large "gray labor" market (HRSA, 2A04), abuse and violence occur to a large number of workers and represent a serious public health problem. This further suggests that both preventive and early intervention measures need to be taken to reduce the adverse mental health consequences of abuse and violence among home care workers. Protecting home care workers from occupational exposure to violence challenges the traditional workplace safety paradigm. The recommended organizational, environmental, and behavioral strategies for control of workplace violence address the "fixed" or institutional health care work environment, and need to be reconceptualized to apply in the home care setting (McPhaul, 2004; Henry & Henry, 1997). The home care workforce could benefit from a two-pronged approach to reducing risk for violence-related worker depression: (1) improve the work environment in the home and organizational supports for workers, and (2) early case-finding and aggressive treatment for workers' depression. Because the personal safety of home care staff is the responsibility of the agency,
significant investment needs to be made to ensure that workers' safety is a priority. One preventive measure recommended by NIOSH after extensive assessment of one county home care service is to create contracts between workers and home care patients which can serve to avoid conflicts and provide a mechanism for early intervention if disputes occur (Baron & Habes, 2003). Managers and direct-care workers both need to be involved in developing safety management systems (McPhaul, 2004). Workers must not feel that exposure to abuse or violence is "part of the job." Each home is a "worksite" and the safety of the environment should be assessed initially on admission, and then on an ongoing basis (Henry & Henry, 1997).

Employees should be encouraged to report incidents. However, the supervisor should also recognize clues in the home environment and be suspicious of abuse when there is high turnover of aides for a particular patient (Niagara, 1997). Health and safety committees should be active and include direct-care workers. These committees should review all policies and procedures, avenues of communication, incident reports, and OSHA logs (McPhaul, 2004). Required safety activities should include mandatory periodic check-ins throughout the day with the office, issuing cell phones to direct-care staff, and visiting in pairs or with an escort service for some high risk visits (McPhaul, 2004). Workers should also be trained on agency policies, risk factors for assault, how to handle hostile patients and family members, ways to de-escalate verbal violence, and how to report events (McPhaul, 2004). In some agencies, contract language may be necessary to strengthen violence prevention programs.

Case-finding and treatment of violence-induced depression is more difficult in home care than when assaults happen in an institution. Stigma continues to be an inhibitor for self-reporting, and as the worker is not directly observed, supervisors may miss depression. Treatment may also be limited by financial barriers. The home care workforce suffers from low
wages, with a full-time median annual income of $17,000-19,000 (BLS, 2005). Many workers do not qualify for health care benefits because they work on a part-time or per-diem basis. About 40% of home care workers who are working in provider organizations lack health insurance, and the rates are even lower for those who are self-employed (UCSF, 2006) Thus, if they become depressed, their access to mental health services is limited unless they receive public benefits.

Post assault support programs have been used in traditional work environments to reduce the adverse psychological impact of assault on the job (Flannery et al., 1991; Flannery, 1999; Flannery et al., 1998). However, this is impractical in home care settings unless contracted out to employee assistance programs with an understanding of the home care work environment.

Dunnagan, Peterson, and Haynes (2001) stressed the importance of changing the organization's culture to reduce workers' depression, rather than simply providing individual treatment to workers. The results presented here suggest that in order to reduce the risk for depression, one target will be reducing the amount of abuse and violence that is witnessed or directed toward the worker.

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