

# Health and Safety of Limited English Speaking Asian Homecare Aides in Chicago

## A Pilot Study

Jing Zhang, PhD, Susan N. Buchanan, MD, Kathleen M. Rospenda, PhD, and Joseph Zanon, PhD

**Objectives:** To identify health and safety hazards and needs among limited English speaking Asian home care aides, and characterize their acculturation status and how it affects their health and safety. **Methods:** Surveyed 60 home care aides and interviewed six home care service providers to assess health and safety hazards and needs of the study population. **Results:** The majority of the study participants were older and did not speak English or did not speak English well. They communicated with senior clients in their native language only or most of the time. Many experienced work related injuries and musculoskeletal pain. **Discussion:** The Asian homecare aides met the critical needs of an aging community. They experienced many challenges working as a home care aide and as a result of cultural barriers.

**Keywords:** acculturation, Asian Americans, home care workers, occupational hazards, occupational health and safety

### BACKGROUND

Home-based health care services are expected to grow as the US population is increasingly aging. According to the US Census analysis, the population aged 65 and over was more than 43 million in 2012 and is projected to reach 83.7 million by 2050.<sup>1</sup> The proportion of adults aged 65 and over living with two or more of nine selected chronic conditions increased from 39.2% to 49.0% among men and 35.0% to 42.0% among women from 1999–2000 to 2009–2010. The number of persons with chronic conditions is expected to increase from 149 to 171 million by 2030.<sup>2</sup> As occupational outlook forecasts predict, the direct care workforce and particularly in-home care settings will rise significantly.<sup>3,4</sup> The US Bureau of Labor Statistics reveals that home health care aides and personal care aides rank 3<sup>rd</sup> and 4<sup>th</sup> among the fastest growing occupations in the United States. It projects that the number of home health aides will increase by 47.3% from 911,500 in 2016 to more than 1.3 million in 2026; personal care aides are expected to increase by 38.6% from 2,016,100 in 2016 to nearly 2.8 million in 2026.<sup>3</sup>

Although the occupation of home care services are fast growing, the work of home care workers, specifically home care aides, is often undervalued and workers are vulnerable to various occupational health and safety hazards. A 2004 NIOSH report<sup>5</sup>

found that among 500 home care workers in Alameda, California, 80% were women, 75% were persons of color (black 43%, Asian 25%, Latino 7%), 52% provided services to a family member, and another 19% lived in the home of the In-Home Supportive Services (IHSS) clients but were not related to them. The Paraprofessional Healthcare Institute (PHI) indicated that most direct-care workers were over 40 years old (28% age 55 or older, 37% age 41 to 54).<sup>4</sup> According to BLS, their mean hourly wage was \$10.40 per hour, which was significantly less than that of all US occupations (\$24.34 in 2017).<sup>6</sup> PHI suggested that many of them were employed on a per diem basis and did not have the benefits of paid sick leave or pension; more than one-third of personal and home care aides in agency-based home care lacked health insurance coverage.<sup>4</sup>

Home-based and community-based senior care services, such as home care services and adult daycare, provide a critical support to seniors and their families in Chicago's Asian community. A number of Asian service organizations are providing home care services to frail older adults through the state of Illinois Medicaid/Medicare waiver program. For example, the Illinois Limited English Speaking Elderly Coalition, an organization that advocates for and serves limited English speaking older adults throughout Illinois, has more than two dozen of its member organizations providing services to Asian older adults. Current literature and research examined the health concerns of limited English Asian older adults,<sup>7–10</sup> but no research has been done among Asian home care aides. The goal of this pilot study is to identify health and safety hazards, and barriers and needs related to reducing isolation and promoting health and wellbeing among home care aides in the Chicago Asian American community. We focus on three specific areas: (1) acculturation status, (2) work experiences, and (3) the health and safety risks and concerns faced by this vulnerable worker population.

### Acculturation

Acculturation and cultural barriers may affect the work experiences of Asian home health care aides. Due to language barriers, cultural differences, and lack of income, Asian older adults rely on their community and care providers to age in an environment that they are familiar with and in which they feel safe. At the same time, for limited English speaking immigrants and refugees, home care service becomes an employment niche where they can utilize their language skills and relate to others from their culture. In many Asian cultures, piety and respect for older adults are valued, and therefore children are expected to care for their parents in return for parents raising and caring for them when they were young. According to American Association of Retired Persons (AARP), Asian Americans and Pacific Islanders (AAPIs), typical of the foreign born, are almost twice as likely to care for elders than the general population of the same age: 22% of the general population state they are helping to care for elders, compared with 42% of Asians. The expectation to care for parents in their old age is markedly higher for AAPIs (73% in Asians vs 49% in total population). A much higher percentage of AAPIs age 45 to 55 (73%) agree that caring for parents is expected of them in comparison to just under half of the total population of the same age (49%).<sup>11</sup> The report attributes this

From the Division of Environmental and Occupational Health Sciences, School of Public Health (Dr Zhang, Dr Buchanan, Dr Zanon); and College of Medicine (Dr Rospenda), University of Illinois at Chicago, Chicago, Illinois.

Clinical Significance: Home care aide is one of the fastest growing occupations in the United States, but research is lacking on Asian home care aides, a uniquely vulnerable population. This study provides insight into their acculturation, work experience, health, and safety risks. It provides recommendations for interventions and future research needs.

Funding source: The study was a pilot project funded by National Institute of Occupational Safety and Health (T42/HO008672).

The authors declare no conflicts of interests. The findings and conclusions in this paper are those of the authors and do not necessarily represent the funder, the UIC, and the partner organizations.

Address correspondence to: Jing Zhang, PhD, Division of Environmental and Occupational Health Sciences, School of Public Health, University of Illinois at Chicago, 1603 West Taylor Street, Chicago, IL 60612 (jingz3@uic.edu).  
Copyright © 2018 American College of Occupational and Environmental Medicine

DOI: 10.1097/JOM.0000000000001495

higher percentage of caring for family members among AAPI populations to piety and respect for older adults in the Asian cultural values. However, the report does not discuss the challenges and difficulties of caring for older adults, nor its impact on older adults, the workers, and the community. Moreover, the care givers in the report are not home care aides specifically. Research has found that a low level of acculturation is associated with poorer health among Asian immigrant populations.<sup>12,13</sup> A recent study conducted by the Institute for Research on Race and Public Policy at University of Illinois at Chicago<sup>14</sup> reveals that over two-thirds of Asian Americans in Chicago are foreign-born, and 37% speak English less than very well. Asian Americans are highly segregated from white, black, and Latinx people. Asian ethnic groups vary tremendously in levels of educational attainment, and overall receive lower returns on their education. The racial gap for is twice as large for Asian Americans without a college degree and for Asian American women compared with whites. In this study, we investigate the following two-part research question related to acculturation: Research Question 1: What is the acculturation level of Asian home health care aides in Chicago, and how does acculturation affect work experience, and health and safety risks?

### Work Experiences and Challenges

Research has found that home care aides often do not have control over what they are expected to do once they are in the clients' home. A NIOSH Health Hazard Evaluation Report<sup>5</sup> found two major themes raised in focus groups of home care workers who were asked to describe work-related challenges: (1) difficulties in clearly defining the expectations and a reasonable list of job tasks that could be completed in the allotted time; and (2) having appropriate tools and equipment to do the work. The home care aides described being expected to do chores that were not part of homecare work or which was outside of the set of work tasks discussed at the beginning of the job. They expressed the feeling of never being able to rest. Some felt that others in the household expected them to do work for them, such as cooking for the whole family. Lack of clearly defined tasks affected the job satisfaction of the home care workers. Sims-Gould et al<sup>15</sup> pointed out that the home care workers not only provided personal care, but also emotional and social care in the context of their work. Poor pay, inconsistent hours, limited opportunities for advancement, and lack of benefits are critical to understanding the challenges reported by the workers. Other research interests are focused on how individuals reconcile the demands or the conflicts of their work and family roles.<sup>16–18</sup> Whereas prior research has investigated work challenges among home care aides, it has neglected to investigate work challenges that may be specific to Asian home care aides. Challenges around care for family members versus non-family members may be particularly salient for Asian home care aides, give cultural expectations of children to care for aging parents. In this study, we fill a gap in the research by investigating the work experience of the Asian home care aides: Research Question 2: What are the work experiences of Asian home health care aides in Chicago, and what are the challenges, specifically in caring for family members versus non-family members?

### Health and Safety Risks and Concerns

A NIOSH Health Hazard Evaluation Report<sup>5</sup> suggests that home care workers providing housekeeping and routine personal care services to older adults, disabled or ill individuals are not only one of the fastest growing health care occupational groups, but also one of the groups with the highest occupational injury rates. In 1997, the US Bureau of Labor Statistic issued a special report on work-related injuries to home care workers. According to this report, the injury rate was “50% higher than that of workers employed in the private hospital sector, and 70% higher than the overall rate for all private industry workers. The rate of overexertion injuries including

musculoskeletal disorders in home care workers was 27% and 141% higher than private hospital and private industry workers respectively.”<sup>19p.i</sup> Home health care workers are frequently exposed to a variety of potentially serious or even life-threatening hazards, including “overexertion, stress, guns and other weapons, illegal drugs, verbal abuse and other forms of violence in the home or community, blood borne pathogens; needle sticks, latex sensitivity, temperature extremes; unhygienic conditions, including lack of water, unclean or hostile animals, and animal waste. The long commutes from worksite to worksite also expose the home health-care worker to transportation-related risks.”<sup>19 p.iii</sup> The extent to which Asian home health care workers face similar risks and challenges is unknown. Thus, we address the following research question related to health and safety risks: Research Question 3: What are the health and safety risks and concerns of Asian home health care workers in Chicago?

## METHODS

### Design

For this study we collected data from two sources: in-person surveys of home care aides employed by two Asian community-based organizations (CBOs) in the city of Chicago and interviews with leadership staff of three CBOs. We developed a home care aide survey questionnaire based on current literature on home care aides and Asian American older adults. We developed an interview guide for the CBO leadership staff based on the preliminary results of home care aide surveys. The research protocol and materials were approved by University of Illinois at Chicago (UIC) Institutional Review Board (IRB), protocol number (2016-0863).

### Participants

We partnered with three Asian CBOs that provide home care services to recruit the study participants. One of the organizations is located on the southside of Chicago, another is located on the northside of Chicago, and the third organization is located on the north side of suburban Cook County. We sought to cover a broader geographic area to gain different perspectives and identify challenges for the home care aides. The recruitment for survey participants took place during home care aides' trainings at two partner organizations' sites in the city of Chicago. We distributed and posted recruitment flyers where survey participants were recruited. The eligibility criteria for home care aide survey were: (1) age 18 and over; (2) self-identification as Chinese or Korean; (3) able to answer survey questions in Chinese or English; (4) work as a home care aide for at least 1 year; and (5) live in the Metropolitan Chicago area. The eligibility criterion for the CBO interviews was involvement in home care service at the organization either in a coordinating or leadership position at one of the three CBOs that participated in this study.

### Data Collection: Surveys and Interviews

#### Surveys

Our survey questionnaire contained 97 closed and open-ended questions in five domains: demographic background and acculturation; general homecare worker experience; health and safety risks and concerns; how to cope with health and safety hazards; and knowledge of health and safety measures to prevent work related injuries and health problems. The questionnaire contained dichotomous, categorical, ordinal-level, interval-level, and Likert scale questions. It was designed in simple English to reflect the literacy level of the participants and was translated into Chinese.

We used Suinn-Lew 26-item Asian Self-Identity Acculturation Scale (SL-ASIA) to measure acculturation levels among our participants. The SL-ASIA assesses language spoken, cultural values and beliefs, habits, and behaviors.<sup>20</sup> This scale has been

widely used and adapted in research on Asian population and is considered a valid measure of acculturation.<sup>21–23,12</sup> We used a series of items developed by CDC, Seixas et al, and NIOSH to assess demographic, work experience, health and safety hazards, and musculoskeletal pain among home care workers.<sup>24–26,19,5</sup>

The surveys were conducted in Chinese or English by the first author. Each survey took about 45 minutes to 1 hour to complete. The survey interviewer explained the questions one-on-one and took notes on additional details that participants provided stimulated by the survey questions. The surveys were conducted in individual sessions or in small groups of no more than five participants. If the participants chose to participate in a small group session, they completed the survey questionnaire individually to maintain confidentiality and privacy. The individual surveys were conducted before or after work, or on weekends in order to accommodate the schedule of the participants and at the locations of the participants' choice. These sites included a partner organization, a local public library, an ethnic bakery, and a community center known to the participants. Small group sessions were conducted at the partner organization. The identifiers of the participants were not collected. The survey questions were coded and entered into Excel for analysis. The open-ended questions were transcribed and analyzed by themes and patterns.

**Interviews**

We developed an open-ended tool for the CBO interviews that consisted of 12 topics with sets of open-ended questions about successful experiences and challenges in working with home care programs, health and safety concerns among home care aides and their health and safety needs as they observed, training given and needs, challenges, or difficulties in providing home care services, and the role of home care services in the Asian ethnic communities. We sought to obtain the perspectives from the providers in relation to the health, safety, and work conditions of the home care aides. These interview topics were developed primarily on the basis of preliminary results from the home care aides surveys.

The first author conducted face-to-face, semi-structured interviews with the recruited representatives from the participating CBOs. Each interview session took from 30 to 45 minutes to complete. The interviews were carried out in English. Although the questions in the interview guide were developed on the basis of the preliminary results from the survey, the interview was open to discussion about other safety and health issues as they emerged during the interview pertaining to the home care aides or the organizations as service providers. We audio taped the interviews for accuracy, transcribed and coded the data, and then analyzed them to provide descriptive information about responses to the interview questions, as well as conducting thematic analysis to identify themes and patterns in interview responses.

A total of 60 Chinese and Korean home care aides were successfully recruited and consented from two partner organizations, and six staff members from the three CBOs completed the organizational interview. We present the home care aide survey data together with the data generated from the CBO staff interviews, by Research Question. We performed descriptive data analysis to answer our research questions.

**RESULTS**

**Demographics**

Survey participant demographics are shown in Table 1. Ninety-five percent of the survey participants were women. The average age was 58, median age was 60, ranging from 27 to 70 years old. Eighty-five percent of participants received high school or below education and 78% earned below \$20,000 annual personal income. About 78% of the participants were Chinese and 12% were Korean.

**TABLE 1. Demographic Characteristics of Asian Home Care Aide Participants (N = 60)**

Characteristics	Percentage/Mean	Range
Gender		
Female	95%	
Male	5%	
Ethnicity		
Chinese	78%	
Korean	12%	
Age	58	27, 70
Education		
Primary/middle school	46%	
Vocational/high school	39%	
Junior college	7%	
Bachelor degree	8%	
Marital status		
Married/living with a partner	82%	
Separated/Divorced	12%	
Widowed/never married	6%	
Personal income		
Less than \$9,999	13%	
\$10,000–\$19,999	65%	
\$20,000–\$29,999	20%	
\$30,000–\$39,999	2%	
No. of person in the household	2.1	1,7
Live with children under age 18	25%	
Average no. of children under 18	1.5	1,4

**Acculturation Level of Asian Home Health Care Aides**

Data on acculturation factors is shown in Table 2. Close to 99% of the participants were foreign born. About 96% did not speak English well or did not speak English at all and 98% communicate with their clients in their native language only or more native language than English.

The majority of the participants (96%) socialized with the Asians or people of the same ethnicity most often or exclusively. Ninety-eight percent of the participants agreed or strongly agreed that children and family members should care for older persons. This is reflected in literature and research on Asian American traditional and cultural values of caring for older adults.

Overall, western acculturation level was low among the participants. On a scaled question about acculturation, “How much do you believe in traditional Asian cultural values (ie, care for older adults, education for children, marriage)?” 85% of participants responded 5 or above on a 1 to 7 scale (from 1 = “don’t believe at all” to 7 = “strongly believe”). Home care aide service to limited English speaking older adults was an employment niche for people with low acculturation. They became the only persons for the seniors to maintain connection to the services outside the home. At the same time, many older women home care aides did not have previous driving experience in their home countries or did not have a reliable car.

**Work Experiences and Challenges of Asian Home Care Aides**

Forty-three percent of participants indicated that home care aide was their first job in the United States. When asked why they stayed in home care service, the most common responses included, “like helping people” “job is steady and secure,” and “I do not speak English.” As one CBO staff interview participant said, “. . . to be able to provide services that the seniors need., at the same time

**TABLE 2.** Acculturation Factors of Asian Home Care Aide Participants (*N* = 60)

Characteristic	Percentage/Range
Years living in the US	11 years (3, 38)
How well speak English	
Well/very well	6%
Speak English not well	67%
Don't speak English at all	29%
Language spoken most often in past 12 months	
Asian only	65%
More Asian than English	30%
Asian and English equally well	5%
Language used to read in past 12 mo	
Asian only	78%
More Asian than English	11%
Asian and English equally well	2%
Language used to communicate with clients	
Asian only	95%
More Asian than English	3%
Asian and English equally well	2%
Socialize with in the community	
Almost all Asian, Asian Americans	58%
Most Asian, Asian Americans	38%
About equally Asian and non-Asian	3%
Participate in Asian occasions, holidays, etc	
All of them	3%
Most of them	15%
A few of them	52%
None at all	30%
Children/family should care for older persons ( <i>n</i> = 56)	
Strongly agree	50%
Agree	48%
Disagree	2%

we can place newcomers, new immigrants to this profession. The newcomers and immigrants can have a job and use their languages to connect with seniors, [the] most home-bound." However, attracting home care aides to the profession was seen as a challenge by the CBO staff. A CBOs staff serving clients in less ethnically-concentrated geographic areas indicated that finding home care aides who can speak the language and drive a car was a challenge. Another interview participant said, "The wage is not appealing, especially to potential younger workers."

Table 3 shows characteristics of home care work among the survey participants. The mean years employed in home care services among the survey participants was 6.4. About 50% of the survey participants worked 30 hours or more per week. Those who worked 30 hours or more per week were eligible for certain benefits including health insurance and paid time off (eg, vacation time). However, according to participants, the hours and the number of clients can change from week to week. If a client is hospitalized, out of town, or sick, the hours can be reduced. About 11% of the survey participants had a second job in order to earn more money or have health insurance covered by another job. Table 3 also shows that among the survey participants, 23% of the home care aides surveyed were taking care of a family member, primarily a parent(s) or parent(s)-in-law, compared with 52% caring for a family member found in national study.<sup>5</sup>

Services provided by the home care aides are shown in Table 3. Ninety-two percent of the survey participants provided assistance in activities of daily living (ADLs: eating, dressing, bathing, transferring, and toileting).<sup>24,5</sup> About 73% of the participants provided "other" services, including grocery shopping or shopping for the daily necessities such as household cleaning products, picking up medications; taking clients to the doctor or making medical

**TABLE 3.** Asian Home Care Aides Work Experience (*N* = 60)

Characteristic	Percentage/Range
Years in home care services	6.4 y (1, 18)
No. of clients cared for per week in the past 12 mo	2.3 clients (1, 6)
Hours work in an average week	19 h (4, 40)
30h or more	50%
How do you travel to work	
Drive my own car	29%
Public transportation	33%
Walk	29%
Bicycle	10%
Other (car pool or living in)	4%
Services provided	
ADL	92%
Cooking or preparing meals	95%
Cleaning	100%
Doing laundry	97%
Help with book keeping	43%
Reading to clients	52%
Reminding the medication	92%
Other	73%
Care for a family member	23%

ADL, activities of daily living.

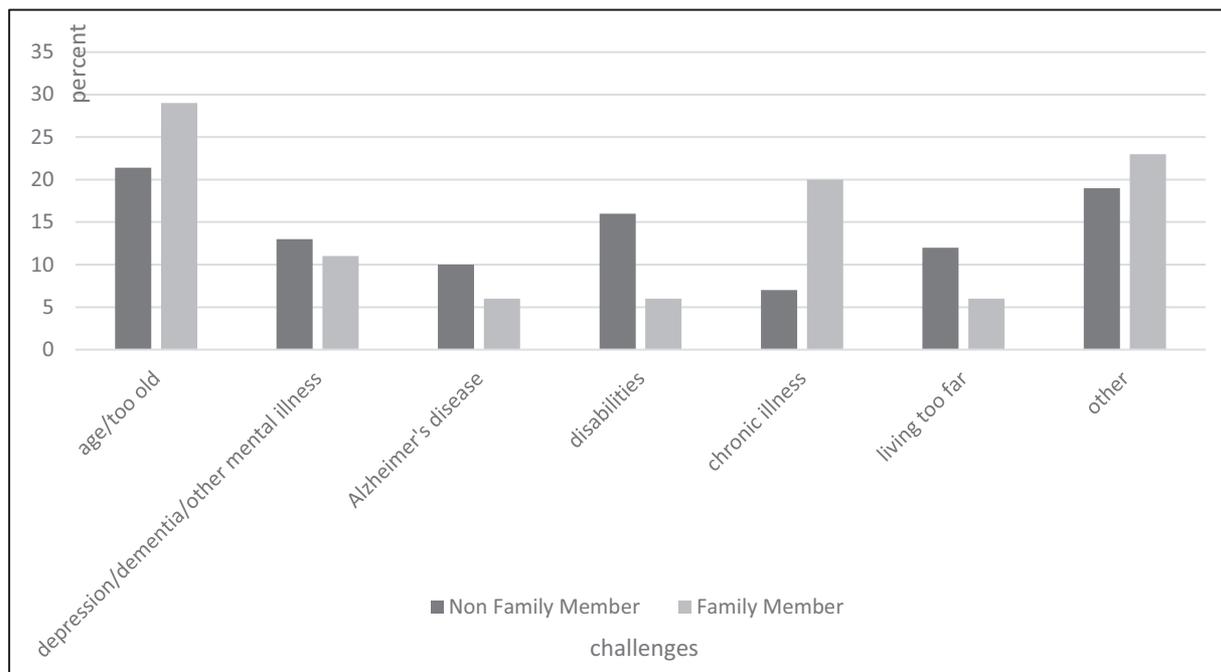
appointments; picking up the newspaper and mails, making phone calls, and taking clients for a walk or exercise when there is time.

We asked home care aides about the most challenging or difficult part of taking care of their family and non-family clients in our survey. Figure 1 shows the differences in the greatest challenges reported in caring for these different types of clients. Among the survey participants who cared for a family member, old age, chronic illnesses, depression, dementia, other mental health problems were the greatest challenges. The "other" challenges included care for chronic diseases such as high blood pressure, pre-diabetes, heart condition, high cholesterol, stroke, Alzheimer symptoms, forgetfulness, and bad temper.

The home care aides who cared for a family member described the additional expectations from elder family members. As one survey participant described, "[There is] more work [when] taking care of stuff at home, cooking other than [in addition to] working time." Two other participants said, "[There are] only 15 [paid] hours [per week], but [I] have to take care of her the whole day for seven days a week." "You do your job during the work hours. After work, you still have to finish up the things that you can't finish during the work."

The survey participants who cared for a non-family member considered disabilities, depression, dementia, and other mental illness, Alzheimer disease, living too far, and age/too old of the clients as the most challenging parts of the job. The "other" challenges or difficulties included: moving and lifting the patient, reaching or lifting heavy objects. "Patient is heavy, carrying off the bed is challenging." "[My patient] lost both legs and [lost the] ability to move, you can imagine how this affects [how] the patient feels." "[The patient is] confined to bed. [I] wash clothes. The patient has bowel movements and urinates in the bed." Survey participants said, "In cold weather, [we are] not given warm water [because the client wants to save money on the utility bill]. The employer does not want us to reach [for things at] certain heights, but if the clients want me to do [it], I have to take care of it. The elderly can lose [their] temper and yell at us."

In addition to the physical limitations, the home care aides described the loss of cognitive function, or fear of the future of their own wellbeing among clients. "The elderly has bad memory, repeat



**FIGURE 1.** Challenges to caring for the older adults: non-family members versus family members. Percentage of non-family members and family members interviewed reporting seven different types of challenges in caring for Asian older adults.

[things] again and again.” “The client suspects you steal things, things can’t be found, even [if] I did not even see them before.” “Wants to open the door and go out, [I] worry can’t find them.” “They hate to go to nursing home. . . They are afraid the families will send them to the nursing home when they are old[er]. When she was upset or angry, she didn’t know how to control herself.”

### Health and Safety Risks and Concerns of Asian Home Care Aides

Table 4 lists participants’ responses to queries about health and safety hazards. Among the survey participants, 65% were very concerned or concerned about their health, and 35% were not concerned or not concerned at all. The rate for those who had ever been injured on the job as a home care aide was 40% and the rate for those who were injured in the job in the past 12 months was 28%. The reported injuries included burns, bruises, back injuries (eg, “pulled back muscles,” “ongoing back pain or strain,” “pain in the body,” or shoulder inflammation), and smashed fingers. The causes of the injuries in the past 12 months were cleaning including dumping out the garbage, cooking and preparing food, lifting or moving the clients, falling on the slippery floor during cleaning or on their way to work in the wintertime, and feeling tired or stressed. Twenty-three percent of the participants reported that they had an injury at work that forced them to stop working and get First Aid and medical treatment, but only 12% took time off due to work related injuries and health problems.

Seventy-two percent of participants reported that they used chemical products in their work daily and 77% “frequently” or “always” needed to bring gloves and masks to work. Fifty-three percent of the survey participants were engaged in repetitive physical activities such as lifting, pulling, pushing, or bending. A few participants indicated that they did not wear masks or gloves because their elder clients may not like it, even though some organizations provided gloves or masks. Table 4 also shows that the majority of the participants considered their job as stressful (62%) and 31% considered their job always or often stressful.

**TABLE 4.** Work Related Health and Safety Hazards of Asian Home Care Aides (N = 60)

Characteristic	Percentage
How concerned about health	
Very concerned	15%
Concerned	50%
Not concerned	27%
Not concerned at all	8%
Have ever been injured	40%
Injured in past 12 mo	28%
Experienced physical pain in past 12 mo	70%
How often work around chemicals	
Daily	72%
Several times/wk	16%
Several times/mo	9%
Rarely	3%
Repetitive activities (lifting, push, pulling, etc)	
Daily	53%
Several times/wk	25%
Several times/mo	12%
Rarely	10%
Physical efforts	
Very heavy physical efforts	2%
Heavy physical efforts	23%
Somewhat	49%
Light physical efforts	23%
Very light physical efforts	3%
How often need to provide own protection device	
Never	2%
Rarely	21%
Frequently	59%
Always	18%
How often find work stressful	
Always	14%
Often	17%
Sometimes	62%
Hardly ever	7%

In answering our open-ended question, “what are the dangers (or risks) to your health in your job as a home care aide?” the majority of the study participants listed infectious diseases such as lung infections, tuberculosis, Hepatitis B, and HIV which they feared contracting from the clients. Participants reported that they were not informed of the clients’ health conditions. The participants who were taking care of diabetic patients were concerned about “the sharps (eg, needle-sticks) left around” in the clients’ house. Home care aides also noted swollen hands or rash from cleaning and washing clothes. As some of the participants said, “Gloves can break and dirty water gets in.” Others said strong smells from cleaning products and mixtures of different cleaning products. One of the participant’s thumbnail fell off for the third time as a result of cleaning and washing dishes and clothing. Some participants were concerned that they “do not have strength to lift and move the clients” and complained of pain in their body as a result of home care work related activities. A few study participants expressed “feeling sad and bad” when they were “wrongly blamed” or “yelled at” by the clients, because of “their [clients] forgetfulness due to aging” and how this affected their own mental health. The survey participants were also concerned about the crime and safety in their clients’ communities. A couple of participants described how they handled sexual harassment from male clients.

As employees of the organizations under the state Medicaid and Medicare waiver program, the home care aides must attend a minimum of 12 hours annual training on home care services which include safety hazards and injury prevention. However, the home care aides worried that if they refused to perform hazardous activities, clients might yell at them or complain to the employer, or possibly switch to another home care service resulting in loss of work hours and job. Moreover, some first generation immigrant seniors brought their cultural expectations to the aides. According to both surveys and CBO staff, some clients asked the home care aides to hand-wash clothes or clean floors by hand. The following is an excerpt from a CBO interview describing the challenges in maintaining the boundaries between the clients and home care aides:

“Sometimes the clients ask our workers to do extra work which may not be on their service plan. Because [there are] so many competitors, the clients may threaten, “if you don’t do it, I am going to switch to another company,” so our workers will say, “Ok” to doing dishes by hand, not machine. Sometimes [they will] cook a large amount for the [whole] family, not small portion [just for the client], sometimes [clients will] ask them to clean ceiling fans, to reach. . . We’ve only allowed to aides drive clients for essential daily needs. [We] won’t allow [them to drive] over five miles, but sometimes [they are driving] 10 miles because they [the clients] can’t buy things in their neighborhood.”

“...when they [the clients] ask the workers to shop for groceries, some seniors want to stock up large quantities on kimchi, rice (25 pounds), and boxes of food because they have this chance. Our workers may carry these heavy loads, and may get hurt. . .”

“One of our home care aides is working with a senior in the Chicago area. The senior has a lot of stuff everywhere, especially above the refrigerator. . . She has a food processor on the refrigerator, which was not securely stored. When the worker opened the refrigerator, the food processor fell. She had asked the client before to move the processor because it looked unsafe for the senior as well, but she refused. Finally [it] fell on the worker’s head. She had to go to the hospital for treatment.”

Table 5 shows the distribution of musculoskeletal pain among the survey participants. Seventy percent ( $n = 42$ ) of survey participants experienced pain in their body in the past 12 months. On a scale of “0” (no pain) through “10” (most severe), most severe pains were in back, legs, knees, back of neck, shoulders, arms, and hands/hand joints. A CBO interview participant said, “Our workers are not in [their] twenties and thirties. They are older too. They are

**TABLE 5.** Musculoskeletal Pain Among Asian Home Care Aides ( $N = 42$ )

Characteristic	Percentage	Pain Scale 0–10
Pain in the past 12 mo		
Back	60%	40% (7–10), 44% (4–6), 16% (2–3)
Shoulders	48%	35% (7–8), 25% (4–6), 40% (1–3)
Arms	29%	33% (8–10), 67% (5–6)
Hands/hand joints	29%	33% (8–10), 57% (4–6)
Back neck	12%	40% (8), 60% (4–6)
Knees	12%	40% (7–9), 40% (5–6) 20% (2)
Legs	10%	50% (8–10), 50% (6)
Feet/heels	10%	75% (5–6), 25% (25%)
Elbows	7%	100% (4–5)
Hip	2%	100% (4)

in late fifties, early sixties, or seventies. They are complaining about their physical condition. If their physical condition is getting down [deteriorating] their mentality is getting down [deteriorating] too. Sometimes, they are getting depressed. . .”

As one interview participant described when workers are injured, “. . . they will take a long leave of absence to go China to see a doctor. Even with dental problems, they go to China. If they have vacation, they will take the vacation [to see a doctor]. Some will take a leave of absence, no pay, to go to China. Most of them complain about joint pain, arthritis.” Our survey indicates that low utilization of health care and medical treatment is common among limited English speaking home care aides.

Regarding job satisfaction, 78% of the participants felt that they were valued/respected by their clients; 70% felt they were valued/respected their employer; and 64% felt they were valued/respected by their community or society. Ninety-three percent were very satisfied or satisfied with their job.

## DISCUSSION

Limited English speaking home care aides are not only a growing part of the work force as the US is increasingly aging, but they also fill a niche of in-home service to non-English speaking older adults in this study. This is the first study we know of that characterizes the occupational experience of Asian home care aides. Our survey group was overwhelmingly women. The average age of our study population was 58, which is quite a bit older than the average age of all US direct-care workers (42 years old).<sup>4</sup> The older age of Asian home care aides in our study may be at least partly explained by national statistics showing that Asian Americans have less retirement income other than Social Security because of relatively short work experience in the US, and are more likely to live in poverty. The poverty rates for Asian Americans age 65 and over is 11.8%, compared with 9.3% for all older Americans.<sup>27</sup> Home care aides who have immigrated to the United States have to work a required number of years in order to be eligible for Medicare or Social Security benefits. Therefore, in order to earn a minimum retirement income, some limited English speaking home care workers work well past US retirement age.

In contrast to 23% of direct-care workers who were not born in the United States,<sup>4</sup> almost 99% of the Asian home care aides surveyed in this study were foreign born. The majority of the study population did not speak English well or not at all, and they cared for clients with whom they shared ethnicity and language. The participants in our group were in general not acculturated to the United States. They socialized almost exclusively with other Asians and held to the traditional belief that older persons should be cared for by the family and/or children. Because of low acculturation and lack of

communication skills to negotiate with the clients, they tended to take on extra duties that were not part of the service plan.

The majority of the home care aides provided routine services like help with ADLs, cooking/preparing meals, cleaning, doing laundry. Like one national study<sup>5</sup> suggested, they did not have clearly defined tasks and expectations. As some of the expectations were based on cultural traditions, senior clients may ask the workers to clean the floors on hands and knees, wash clothes by hand, or perform jobs that were not specified in the service plan or even were prohibited such as moving furniture, which required physical effort, increasing the workers' risk of injuries. Many clients preferred ethnic foods, and the home care aides were sometimes required to carry heavy bags of rice. Our pilot study found that the boundary separating worker and client was sometimes blurred since both were from the same ethnic population that had different moral obligations towards older adults, which may lead to increased risk for occupational injuries.

According to the participants, the most challenging and difficult parts of the job as a home care aide included clients with depression, dementia and other mental illness, and Alzheimer disease. Because many clients were frail, isolated at home, feeling vulnerable and insecure, or did not want to bother their adult children, they relied mainly on the home care aides. They may vent their loneliness and frustration to the workers or wrongly blame the workers. National studies suggest that Asian Americans have lack of access to mental health care, especially Asian American older adults.<sup>28,29</sup> Almost 57% of older-adult Asian Americans need to see a professional for mental health or substance abuse issues, but do not receive treatment.<sup>30</sup> Asian American older adults are three times less likely than the general population to seek mental health services.<sup>29</sup> Our survey confirms that inadequately treated neuro-cognitive and/or mental health issues among elder clients increases the risk for job stress among home care aides. The affordable and culturally appropriate mental health counseling are needed for both elder clients and the home care aides.

Our study found that injury and musculoskeletal pain were common among the survey participants (70%), compared with 20% to 30% of participants in a focus group study who reported musculoskeletal pain when assisting clients getting in and out of bed, pushing or lifting a wheelchair, and assisting the client in and out of the tub or shower.<sup>31</sup> The rate of injury from lifting among home care workers in another study was 20.5 per 10,000 workers,<sup>5</sup> while 23% of our survey participants reported injury requiring them to stop working and get First Aid. Our study also found many home care aides were using chemical products on a daily basis, but many did not use any protection and often need to bring their own gloves and masks to work. These exposures put them at greater risk for chemical related health problems. This points to the clear need for policy change among organizations employing these workers, which should be providing personal protective equipment and/or making clearer recommendations about using safety equipment and measures during mandatory training sessions. Interventions are needed to address the elevated injury rate and musculoskeletal pain in the home care setting.

There are multiple explanations for why some limited English speaking home care aides felt stressed and did not know how to communicate with the clients about work tasks they should avoid doing to protect their health safety. Asian traditional cultural values emphasize respect for older adults, and limited English speaking home care aides are sympathetic to the elder clients instead of setting clear boundaries with their clients. Moreover, home care aides may not be equipped to read the signs of dementia or Alzheimer disease, depression, and other mental illnesses, and may lack the skills to communicate with the clients who are living with these health conditions. These communication skills include how to set boundaries with the clients, and learning these skills would require coaching and practice. In addition to low cost

counseling, a peer support network should be made available to limited English speaking home care aides. Some survey participants also expressed the interest in learning more about elder health and what to expect in caring for older adults with dementia, Alzheimer disease, depression, and other health issues. At the same time, clients and their families should be made to understand the services that the home care aides will and will not provide.

This pilot study revealed some unique health risks and safety hazards for Asian home care aides in Chicago. As the majority of home care aides are older adults and are in clients' homes, this population is vulnerable to potentially hostile work environments. Precautions need to be taken to protect their health and safety. Simply teaching about the correct ergonomic positions to prevent work related injuries may not be enough. The topics on injury prevention in their training should be accompanied by graphics with types of protection devices needed for daily cleaning such as kneepads, back protection belts, gloves, and masks. We recognize that the workers do not select the clients' cleaning products, but providing them with information on harmful chemicals in these products will help the limited English speaking home care aides decide if they need to use the gloves and other protections during work. Short exercise movements that fit their schedules, and are appropriate to their age, and that address their musculoskeletal pain should be developed. The effectiveness of these interventions to reduce work injuries should then be evaluated.

## LIMITATIONS

This study is a small pilot study in one geographic area and only a few organizations were included. The sample sizes for the home care survey and CBO interviews were small. The majority of the survey participants were native Chinese speakers, therefore the results may not represent the overall population of Asian home care workers in Chicago. The CBO that is relatively newer and located in the suburbs had younger home care aides who can drive to work compared with those located in the inner city. This study did not have the resources to examine the age and the health conditions of the clients and how these factors affect the work experience and health and safety of the home care aides. Future research in this area should survey both homecare aides and their clients to get a better picture of how the health and safety of the home care aides and their clients may be interrelated.

Despite the limitations of this study, the results provide a unique and important first look at the specific health and safety issues faced by Asian home care workers, along with suggestions for how to begin to make jobs safer for these workers. A larger, more representative study is needed to examine whether our results translate to home care workers who speak other languages and who work in different parts of the country.

## ACKNOWLEDGMENTS

*The authors would like to thank their community partners for providing recruitment sites and all the participants for spending their time to share with them their experiences. Marsha Love for proving the literature at the planning stage, Amber Chen for her assistance in data entry.*

## REFERENCES

1. Ortman JM, Velkoff VA, Hogan H. An Aging Nation: The Older Population in the United States: Population Estimates and Projections. Current Population Reports, US Census Bureau; 2014:1–28.
2. Rowles GD, Teaster PB. The long-term care continuum in an aging society. In: Rowles GD, Teaster PB, editors. *Long-Term Care in an Aging Society: Theory and Practice*. New York: Springer Publishing Company; 2016 p. 3–32.
3. Bureau of Labor Statistics, US Department of Labor. Employment Projections, the Fastest Growing Occupations 2018; Table 1.3.
4. Paraprofessional Healthcare Institute. "Who are Direct Care Workers?" PHI Quality Care through Quality Work PHI Facts No. 3. 2011; 1–6.

5. NIOSH (National Institute for Occupational Safety and Health). NIOSH Health Hazard Evaluation Report: HETA #2001-0139-2930, Alameda County Public Authority for In-Home Support Services, Alameda, California 2004; 1–31. Available at: <https://www.cdc.gov/niosh/hhe/reports/pdfs/2001-0139-2930.pdf>. Accessed Feb 7<sup>th</sup>, 2016.
6. Bureau of Labor Statistics, US Department of Labor. Occupational Employment and Wages, 2017, 39.9021 Personal Care Aides. Available at: <https://www.bls.gov/oes/current/oes399021.htm>. Accessed April 6, 2018.
7. Simon MA, Chen R, Chang ES, et al. The association between filial piety and suicidal ideation: findings from a community-dwelling Chinese aging population. *J Gerontol A Biol Sci Med Sci*. 2014;69(suppl 2):S90–S97.
8. Dong X. The population study of Chinese elderly in Chicago. *J Aging Health*. 2014;26:1079–1084.
9. Dong X, Bergren S, Chang ES. Levels of acculturation of Chinese older adults in the Greater Chicago area –the population Study of Chinese Elderly in Chicago. *J Am Geriatr Soc*. 2015;63:1931–1937.
10. Yoo GJ, Musselman E, Lee YS, et al. Addressing health disparities among Older Asian Americans: data and diversity. *Generations*. 2015;02:26. Available at: <http://www.asaging.org/blog/addressing-health-disparities-among-older-asian-americans-data-and-diversity>. Accessed March 12, 2016.
11. AARP (American Association of Retired Persons). Caregiving among Asian Americans and Pacific Islanders Age 50+. An AARP Report; 2014; pp. 6–38.
12. Hsueh L, Garcini LM, Zhou AQ, et al. Assessment on the use of the Suinn-Lew self identity acculturation scale in health studies of Asian immigrant populations. *J Field Actions*. 2015;13:1–13.
13. Tang F, Zhang W, Chi I, et al. Acculturation and activity engagement among older Chinese Americans. *Gerontol Geriatr Med*. 2018;4:1–7. Available at: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6050631/>. Accessed September 6, 2018.
14. Institute for Research on Race and Public Policy, University of Illinois at Chicago. A Tale of Diversity, Disparity, and Discrimination: The State of Racial Justice for Asian American Chicagoans; 2018. Available at: <http://stateofracialjusticechicago.com/a-tale-of-diversity-disparity-and-discrimination-the-state-of-racial-justice-for-asian-american-chicagoans/>. Accessed August 16, 2018.
15. Sims-Gould J, Byrne K, Beck C, et al. Workers' experiences of crises in the delivery of home support services to older clients: a qualitative study. *J Appl Gerontol*. 2013;32:31–50. Available at: <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.1004.7871&rep=rep1&type=pdf>. Accessed August 16, 2018.
16. Kelloaway EK, Gottlieb BH, Barham L. The sources, nature, and direction of work and family conflict: a longitudinal investigation. *J Occup Health Psychol*. 1999;4:337–346.
17. Matthews RA, Kath LM, Barnes-Farrell JL. A short, valid, predictive measure of work-family conflict: item selection and scale validation. *J Occup Psychol*. 2010;15:75–90.
18. Epstein NB, Lawrence MB, Bishop DS. The McMaster family assessment device. *J Marital Fam Ther*. 1983;9:171–180.
19. NIOSH. NIOSH Hazard Review Occupational Hazards in Home Healthcare. No. 2010-125. 2010; 1–68. Available at: <https://www.cdc.gov/niosh/docs/2010-125/pdfs/2010-125.pdf>. Accessed February 7, 2016.
20. Suinn RM, Suinn-Lew Asian self-identity acculturation scale (SL-ASIA). In: Trinh H, Rho YC, Lu FG, editors. *Handbook of Mental Health and Acculturation in Asian American Families, Current Clinical Psychiatry*. New York: Humana Press; 2009. p. 1–30.
21. Suinn RM, Ahuna C, Khoo G. The Suinn-Lew Asian self-identity acculturation scale: concurrent and factorial validation. *Educ Psychol Measur*. 1992;52:1041–1046. Available at: <http://journals.sagepub.com/doi/pdf/10.1177/0013164492052004028>. Accessed September 6, 2018.
22. Chung RHG, Kim BSK, Abreu JM. Asian American multidimensional acculturation scale: development, factor analysis, reality, and validity. *Cult Divers Ethnic Minority Psychol*. 2014;10:66–80.
23. Kang S-M. Measurement of acculturation, scale format, and langue competence: their implications for adjustment. *J Cross-Cultural Psychol*. 2006;37:669–693.
24. CDC. Design and Operation of the National Home Health Aide Survey: 2007-2008 CDC Vital and Health Statistics; 2010; Series 1, No 49:1–10324. Available at: [https://www.cdc.gov/nchs/data/series/sr\\_01/sr01\\_049.pdf](https://www.cdc.gov/nchs/data/series/sr_01/sr01_049.pdf). Accessed February 07, 2016.
25. Seixas NS, Camp J, Blecker H, et al. Occupational Health and Safety Experience of Day Laborers in Seattle, WA. Final Report. The Department of Environmental and Occupational Health Sciences, University of Washington. Available at: <http://portlandvoz.org/wp-content/uploads/images/2009/04/occupational-health-day-labor-report.pdf?phpMyAdmin=tYpXi-WIhU6y6sfBbX4R7xljPl3e>. Accessed July 19, 2016.
26. Seixas NS, Camp J, Blecker H, et al. Occupational health and safety experience of day laborers in Seattle, WA. *Am J Ind Med*. 2008;51:399–406.
27. US Census Bureau. Current Population Survey, 2017 Annual Social and Economic Supplement. Available at: <https://www.census.gov/data/tables/time-series/demo/income-poverty/cps-pov/pov-01.html>. Accessed April 12, 2018.
28. Kremer LE, Kwong K, Lee E, et al. Cultural factors influencing mental health of Asian Americans. *Western J Med*. 2002;176:227–231.
29. Yam K. *Why Asian American Seniors Have High Rates of Depression But Rarely Seek Help*. *Huffpost*; 2017. Available at: [https://www.huffingtonpost.com/entry/asian-american-senior-mental-health\\_us\\_591-c53eee4b041db8965c58e](https://www.huffingtonpost.com/entry/asian-american-senior-mental-health_us_591-c53eee4b041db8965c58e). Accessed February 17, 2018.
30. AARP. A Community of Contrasts: Asian American 50 and Older. LA: Asian American Advancing Justice; 2016; 6–38.
31. Love M, Tendick-Matesanz F, Thomason J, et al. Then they trust you... : managing ergonomics in home care. *New Solutions*. 2017;0:1–21.