



Published in final edited form as:

*Am J Ind Med.* 2013 December ; 56(12): 1402–1413. doi:10.1002/ajim.22209.

## Hotel Housekeeping Work Influences on Hypertension Management

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### Abstract

**Background**—Characteristics of hotel housekeeping work increase the risk for hypertension development. Little is known about the influences of such work on hypertension management.

**Methods**—For this qualitative study, 27 Haitian immigrant hotel housekeepers from Miami-Dade County, FL were interviewed. Interview transcripts were analyzed with the assistance of the Atlas.ti software for code and theme identification.

**Results**—Influences of hotel housekeeping work on hypertension management arose both at the individual and system levels. Factors at the individual level included co-worker dynamics and maintenance of transmigrant life. Factors at the system level included supervisory support, workload, work pace, and work hiring practices. No positive influences were reported for workload and hiring practices.

**Conclusions**—Workplace interventions may be beneficial for effective hypertension management among hotel housekeepers. These work influences must be considered when determining effective methods for hypertension management among hotel housekeepers.

### Keywords

hotel housekeeping; hospitality; hypertension management; work influences; Haitian immigrants

### Introduction

Hypertension affects nearly 73 million individuals in the United States (US) and approximately one billion worldwide [Centers for Disease Control, 2012]. Hypertension (HTN) is considered the most important modifiable risk factor for cardiovascular disease [Cutler et al., 2008]. Hypertension is especially of concern among women and immigrants. It is predicted that hypertension prevalence will increase by 13% among women by 2025 compared to their male counterpart (9%) [Kearney et al., 2005]. Although women are currently more likely to receive blood pressure medication than men, they are less likely to have their hypertension under control [Gu et al., 2008; Gudmundsdottir et al., 2012], resulting in cardiovascular diseases which are the leading causes of death among women. Immigrants are reported to have lower hypertension prevalence rate than their US born counterparts [Fang et al., 2012]. However, they are less likely to have their hypertension under control [Barnes and Lu, 2012]. Moreover, as their years of residency increase, immigrants' risk for hypertension development also increase [Moran et al., 2007]. Specifically for Haitian immigrants—the second largest black immigrant group in the US

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Disclosure Statement: The authors report no conflicts of interests.

[Prou, 2005; United States Census Bureau, 2010]—studies have reported that hypertension is a major health concern with poor control [Preston et al., 1996; Koch et al., 2005]. Preston et al. reported that 86% of their Haitian immigrant participants had hypertension and only 26% of them had the disease under control. Another study [Koch et al., 2005] found that hypertension was the single most cardiovascular risk factor associated with small vessel infarction among Haitian immigrants. Thus, women and immigrants are at risk groups when it comes to HTN and HTN management leading to poor health outcomes.

Healthcare costs for HTN in the US were estimated to reached \$73.4 billion in 2009 and \$93.5 billion in 2010 [Centers for Disease Control and Prevention, 2012]. These costs reflect health care services, medication, and missed days of work. Hypertension is among the top ten most expensive health conditions for employers in the United States [Goetzel et al., 2003]. Complications from HTN lead to absenteeism, decreased productivity, and increased disability [Goetzel et al., 2003; Centers for Disease Control and Prevention, 2012]. Despite the known economic burden of HTN for employers and its negative impact on employee productivity, little research has been conducted about the influence of work on the management of the disease. Few studies have explored the influence of work on disease management [Anderson et al., 1993; Detaille et al., 2003; Weijman et al., 2005]. Anderson et al. [1993] reported that because of the fear of losing their jobs, Chinese immigrants with diabetes did not discuss their disease with coworkers or employers. In addition, participants with a time restriction on their jobs were more likely to have poor disease management. Detaille et al. [2003] analyzed statements from 69 participants with rheumatoid arthritis (n = 21), diabetes mellitus (n = 23), and hearing loss (n = 25) to explore the factors that help employees to continue working. The participants reported that support from management and colleagues, adequate work conditions were among the various factors needed to manage their disease and continue working. Weijman et al. [2005] found that employees with high workload were more likely to perceive insulin injection as a burden. These studies provide evidence that work influences workers' abilities and approaches to disease management.

To date, studies have yet to explore how specific characteristics of paid employment influence hypertension management. High stress jobs have been shown to increase worker's risk for hypertension. Occupational health pioneers have developed models to understand the relationship between high stress jobs and hypertension [Karasek and Theorell, 1992; Siegrist, 1996a,b; 2002]. Karasek's job strain model posits that jobs with high psychological demands/efforts and low decision latitude lead to chronic arousal of the autonomic nervous system [Vrijkotte et al., 2000] hence increasing one's risk for hypertension [Karasek and Theorell, 1990; Steptoe et al., 1999; Cesana et al., 2003; Markowitz et al., 2004; Fornari et al., 2007]. The construct of social support was later added to the job strain control model yielding the Demand–Control–Support (DCS) Model where social support played the role of a buffer between demand and control. The effort–reward imbalance model (ERI) model emphasizes that work stress occurs when there is an imbalance between high efforts and low rewards, resulting in sustained strain reactions therefore increasing one's risk for hypertension and cardiovascular disease [Siegrist, 1996a,b; Vegchel et al., 2005]. The relationship between high stress jobs and hypertension has been explored among a variety of worker groups including: nurses [Brown et al., 2003], teachers [Deyanov et al., 1994], prison guards, [Brodsky, 1977], and bus drivers [Albright et al., 1992]. A recent meta-analysis confirmed that job strain (high demand–low control work) is associated with work, home and sleep blood pressure, when blood pressure is measured by an ambulatory (portable) monitor [Landsbergis et al., 2013]. Rosenthal and Alter [2012] enumerated a variety of work-related characteristics that are potential risk factors for hypertension development. They include: irregular work schedules, time pressures, repetitive routine or monotonous activities, contact with the public, solitary or interactive tasks, and controllable

or uncontrollable tasks, lack of autonomy, co-worker conflicts, unfair treatments, and ambiguous or contradictory work demands [Rosenthal and Alter, 2012].

Hotel housekeeping is a high stress job with characteristics that increase the risk for hypertension [Hunter Powell and Watson, 2006; Rugulies et al., 2008; Krause et al., 2009; Lee and Krause, 2002]. As the largest occupational group of the 1.8 million workers in the hospitality industry [Bureau of Labor Statistics, 2012a,b], hotel housekeepers experience irregular work schedules, time pressure, repetitive routines, hazardous physical conditions, and lack of autonomy over their tasks [Buchanan et al., 2010; DaRos, 2011; Department of Health and Human Services: National Institute of Occupational Safety and Health, 2012; Soltani and Wilkinson, 2010a,b]. Moreover, the fact that hotel housekeepers are predominantly women and immigrants puts them at further risks for poor management of the disease. Despite the fact that hotel housekeepers are an at risk group for hypertension and work under these high risk conditions, to the author's knowledge, no studies have explored the influences of hotel housekeeping work on HTN management. Addressing this gap, this paper discusses how work influence hypertension management among a group of immigrant hotel housekeepers.

Hotel housekeeping is recognized as the most prominent occupation in the hospitality industry with approximately 900,000 employees in the US [United States Department of Labor Bureau of Labor Statistics, 2012]. With an increased trend toward globalization among many sectors of the economy, hospitality has become a global industry [Kandampully and Suhartanto, 2000]. The importance of hotel housekeepers in the success of the hospitality industry, as the key determinant factor for customer loyalty and customer satisfaction, necessitate the need for employers to promote a healthy, productive, and engaged housekeeping workforce focusing not only on the safety but also on disease management. In this context, this paper reports part of a study that explored hypertension management among a hotel housekeeping immigrant worker group.

## Methods

### Recruitment

Study protocols were reviewed and approved by the primary investigator's university Institutional Review Board. For this qualitative study, 27 Haitian immigrant women hotel housekeepers were recruited through purposive sampling in Miami-Dade County, FL. Individuals who had migrated to the US from Haiti within the past 10 years, were 18 years of age and older; were clinically diagnosed with hypertension; and worked as hotel housekeepers were recruited through four local churches, one barber shop, three restaurants, two boutiques, and one local resettlement organization that serves the Haitian immigrant community. Interested individuals contacted the researcher and gave recommendations for other potential participants ("snowball sampling").

### Study Concepts

Hypertension management is defined as maintaining systolic blood pressure below 140 mmHg and diastolic blood pressure below 90 mmHg [American Heart Association, 2012], and is addressed through pharmacological and non-pharmacological approaches. Pharmacological approaches include anti-hypertensive drugs (e.g., beta blockers) [Chobanian et al., 2003]. Non-pharmacological approaches include close monitoring of blood pressure, diet (e.g., Dietary Approaches to Stop Hypertension—DASH), and increased physical activities [Chobanian et al., 2003; Sacks et al., 2001].

Transmigrant life encompasses every aspect in the life of contemporary immigrants who maintain cross-border relationships between their country of origin and country of residence

[Basch et al., 1994]. Immigrants use work not only to maintain their survival in the US, but also to sustain their trans-border relationships with friends and family in their country of origin [Faist, 2000; Orozco and Burgess, 2011]. Examples of these trans-border relationships include: communications (e.g., telephone), voyages (trips to country of origin), and the sending of remittances. Remittances are goods (e.g., monetary) sent to loved ones in the country of origin [Laguerre, 1998]. Individuals who sustain these relationships that transcend the geographical borders for their countries of origin and residency are called transmigrants [Basch et al., 1994].

## Data Collection

**In-depth semi-structured face-to-face interviews**—Upon establishment of eligibility, the researcher met with each of the participants at a time and location of their choice that would ensure safety and confidentiality. Prior to conducting the interview, the purpose and study procedure were discussed. Both verbal and written consent were obtained. Examples of questions asked during the interview included: You are participating in this study because your doctor told you that you have hypertension. What does that mean to you? What are you currently doing to care for your hypertension? Tell me about a typical day of work for you? How do you think being a hotel housekeeper influences the way you manage your hypertension? Each interview lasted between 20 and 90 min. All interviews were digitally recorded and transcribed. Participants were given the choice to do the interviews in Haitian-Creole or English; all opted for Haitian-Creole. The primary investigator was fluent in Haitian Creole and was able to conduct the interviews. Each participant received \$20 as a form of appreciation.

**Demographic questionnaire**—The demographic questionnaire was completed immediately after the first individual interview. Examples of information obtained, included sex, age, education, income, and number of rooms cleaned per day.

**Photovoice interview**—At the completion of the demographic questionnaire, each participant was asked if they would be interested in participating in a photovoice interview. The participants who agreed (n = 10) were provided with a disposable camera. Following a brief explanation on how to use the camera, participants were told to take pictures of anyone (with permission) and/or anything that influences their hypertension management both within and outside of their workplace. One week after the first interview, meetings were set up to retrieve the camera and follow-up appointments were made to discuss the photographs. The photos were developed immediately after the participants returned the cameras and were kept in the order they were taken by the participants. The researcher then met with the participants to discuss the photos. At these interviews, photographs were handed to the participants and they were asked which of the pictures best depicted: (a) the way they defined hypertension, (b) the way they managed hypertension, and (c) factors influencing their HTN management. Upon completion of the second interview, each participant received another \$20 dollar gift card.

## Data Analysis

**Demographic questionnaire**—Version 17 of the Statistical Package for the Social Sciences (SPSS) software was used for the descriptive analysis of the data from the demographic questionnaire. Frequencies and percentages were calculated.

**In-depth semi-structured face-to-face and photovoice interviews**—Analysis of both interviews occurred in the following steps: (a) the audio-taped interviews were transcribed verbatim; (b) interview transcripts were read and re-read to highlight words, concepts, statements, and sentences that best expressed participants' experiences with work

and hypertension management; (c) with the assistance of Atlas.ti version 6, free quotations were assigned to each of previously highlighted sections; (d) codes (through open coding and in vivo coding) were then assigned to each of the free quotations; (e) code comparison within and between individual transcripts resulted in the emergence of themes and subthemes; (f) reliability in steps “d” and “e” was ensured by another colleague; (g) assignment of inter-coder reliability (where the researchers discussed the coding process, and reached consensus on codes and themes) helped establish consensual validity [Creswell, 2007]. This approach of coding and theme emergence has been used by other qualitative researchers exploring immigrant workers' health [Baril et al., 2003; Roelofs et al., 2011].

## Results

### About the Participants

Twenty-seven women were interviewed. There was an equal number of married (n = 10) and single participants (n = 10) followed by separated (n = 4), partnered (n = 2), and divorced (n = 1). About 56% of the participants had an education level ranging between first and fifth grade, and only four participants reported having completed high school. Over half (n = 17) of the participants reported an annual income of \$20,000 or less, with 53% (n = 9) of those participants making between 11,000 and 15,000 dollars a year. Four participants declined to report their income. Only two participants had been working as hotel housekeepers for >1 year; the remainder had been working as hotel housekeepers between 1 and 10 years. About 37% (n = 10) of the participants reported cleaning 18 or more rooms (see Table I) while 12 reported cleaning 11–15 rooms on a given shift.

### Participants' Reports of How Work Influences Their Hypertension Management

Participants' accounts of how work influences their hypertension management were categorized into two themes: Working influences hypertension management at the individual level and work influences hypertension management at the system level. Subthemes at the individual level included co-worker dynamics, and maintenance of transmigrant life. Participants reported both positive and negative aspects of each of these categories. Subthemes at the system level included supervisor support, workload, work pace, and work hiring practices.

#### Individual Level Influences: Co-Worker Dynamics

##### **Positive influences of co-worker dynamics on hypertension management—**

Participants reported that their co-workers aided them in managing their hypertension by giving advice on remedies. Co-workers discussed choice of providers and exchanged culturally based remedies, such as *lay*, *fey lougawou*, *fey zanmann*, *fey gwo neg*, *fey metsyen*, to each other. These are herbs used among both Haitians living in Haiti and the United States to manage their hypertension. Because of the exchange of ideas and resources at the workplace, work reinforced the use of these non-Western approaches along with Western-biomedical practices for HTN management. One participant stated:

Well you know at work we are all one. Everyone would give ideas. We would ask each other what we do for our hypertension. Some people say to just go to the doctor so that the doctor can prescribe you medication. Others say to take *lay*. *lay* is good. Some say to take *fey lougawou*, *fey zanmann* will help. Each person gives an idea. Drink a lot of water. It will come down. You understand?

(P 13).

Co-workers were viewed as a support system. Four participants mentioned that the majority of their co-workers experienced high blood pressure. Learning of a new HTN diagnosis

from a co-worker was no surprise to the participants. Knowing that other co-workers were experiencing similar issues helped them to better cope with the disease. One participant said:

Everyone is running. All the people are a bunch of sick people. Do you believe there is a hotel housekeeper who does not have hypertension? Well I have yet to see a hotel housekeeper who does not have hypertension.

(P 15)

#### **Negative influences of co-worker dynamics on hypertension management—**

Conflicts among co-workers created a more stressful work environment. Participants perceived that this stressful work environment kept their blood pressure at a constantly elevated state and thus exacerbating their hypertension. Conflicts about work hours and work shift were reported to increase tension between the workers and hinder HTN management because workers perceived these tensions to keep their blood pressure elevated.

All the participants reported usually working 3–4 days per week, and said they would like to work more hours to pay their bills. Participants said they deserved more work hours than their co-workers. They based their merit of more work hours on their perceived work ethic, seniority, and friendship with their managers. One participant stated: “There is a seniority thing. Someone would say, ‘Look they gave me 4 days, and look, this person just started and they gave her 5 days.’ You understand? When that happens you get stressed” (P6).

There were also conflicts between those working the morning shift and those working evening shifts. Four participants working evening shifts reported that their work was more demanding since they mostly got the “checkout” rooms and had to do a more thorough cleaning of the rooms. They also remarked that any unfinished work from the morning shift fell on them. As one participant explained:

People who work in the morning, if there are people in the room, they just tightened the bed sheets. But me I have to change everything. They just clean the bathroom and they are done. The evening people have more things to do. You know I am working the evening. In the morning, the work is easier.

(P8)

Those working the morning shift noted that they had more rooms to clean during the day and often did not have enough time to complete the rooms, unlike the evening shift workers, who had ample time. There was a pattern regarding the number of rooms cleaned between the two shifts. The four participants working the evening shift were more likely to report cleaning between 11 and 15 rooms compared to those who worked the morning shift whose numbers varied between 11 and over 18 rooms. This supported what the participants reported, namely, that the morning shift had more rooms. However, because most of the rooms were occupied during the time, they had less work in each room, and were thus assigned to a larger number of rooms:

Morning people have more hardships. We have more hardships than the evening people. Some days, they can have some hardships too, but not the same way as the day people. And then it is during the day, the supervisor is here.

(P 15)

These differences in shift workload and work hour led to a lack of trust among co-workers. Four participants reported not socializing with other co-workers at all: “I talk to some people at work, but I am not their friends. Because sometimes, there is jealousy at work” (P8).



### Individual Level Influence: Maintenance of Transmigrant Life

**Positive influences of maintenance of transmigrant life on hypertension management**—Work allowed participants to maintain their transmigrant relationships. With the money they made through work, they were able purchase phone cards and send remittances, including money, products or goods, to friends and family in Haiti. All of the study participants believed that staying calm was a way to manage their hypertension. Activities, such as sustaining relationships with friends and family in Haiti, an activity, that enabled them to be calm, was considered helpful to them in managing their HTN. One participant stated: [I have] six children in Haiti. If I were to let hypertension kill me who would take care of them? So I am obligated to take my medications” (P1).

All 27 study participants reported maintaining relationships with friends and family in Haiti. They mentioned that this responsibility of taking care of friends and family in Haiti obligated them to better take care of themselves. They had to keep their HTN under control so that they could work and continue to nurture these transmigrant relationships.

**Negative influences of maintenance of transmigrant life on hypertension management**—Maintenance of transmigrant life was also a source of stress and negatively influenced HTN management among some of the participants. The constant sending of remittances to Haiti hindered participants' ability to go to doctor visits and purchase their medication. With the meager amount of money they made as hotel housekeepers, participants struggled to survive on the balance they retained for their own use. Since managing their HTN cost money (e.g., to purchase medication, pay for doctor visits, and so on) this became more difficult as well. Participant 18 noted:

Taking care of the children in Haiti I think it does not make the hypertension well. Because most of the times you do not have the economy even for your own self if you were to get sick while you do not have insurance. If you were to have a problem, an emergency, you do not even have a dollar to take something, to say let me run to Walgreens, let me run to CVS to go get some medication. Most of the time what you need that would be the best; you need to see a doctor to get it. But you need to have the money to go see the doctor.

### System Level Influences: Supervisor Support

**Positive influences of supervisor support on hypertension management**—Two participants reported that having a supportive and friendly supervisor helped them keep their hypertension under control. Their supervisors showed concern about their well-being by asking them how they were doing and asking about their blood pressure. Two participants mentioned that their managers had even lightened their workload after they had a crisis at the workplace and had to go to the hospital because of their increased blood pressure. One participant said, “My boss helps me with my hypertension, because if my blood pressure goes up and I don't feel well, he sends someone else to help me and he tells me to sit down” (P14).

Two participants reported that their managers held informational meetings during which they discussed hypertension issues with the workers. During meetings, their managers discussed with the participants how to take care of themselves and their hypertension. Information given included the importance of eating healthy (e.g., more fruits and vegetables), and exercising. During the interview, participant 30 stated, “The boss told me to do exercise, [and] not to eat just any type of food. Every morning he has a meeting with me. He tells me to eat apple a lot, to eat lots of fruits” (P30).

### **Negative influences of supervisor support on hypertension management—**

Reported discrimination from the supervisors results in constant stress among participants thus preventing them from staying calm to help them lower their blood pressure. Seven study participants reported discrimination from their supervisor because of their race and country of origin. Participant 24 said, “They look at this color,” as she pointed to the skin on her arm. They compared themselves to the White Americans and other immigrants, such as those from Cuba, who also comprise a large number of hotel housekeepers in Miami-Dade County, FL. Participant 26 also noted her manager's favoritism towards the White workers.

A feeling of isolation occurred, because as they walked into their break rooms, the only conversations they heard were in Spanish. They felt that their supervisor preferred their non-Haitian immigrant counterparts over them. As evidence, they said that they were given fewer work hours and more “write-ups” than their counterparts.

Participants also discussed how their inability to communicate with their supervisor resulted in a constant state of stress for them. This lack of communication was due to their status as immigrants with a language barrier. They had difficulties understanding their manager and vice versa. For example, participant nine had recently come to the US. During her 4-year stay, she had not been able to go to school and learn English. She stated: “I have problems with the language at work. That makes me feel my blood pressure go up.” (P9). Additionally, many participants (n = 25) felt that their supervisors did not care about their well-being and that all they cared about was that the job was completed at a low cost:

I feel like I am a robot. If it were for the boss, the hypertension could kill me. Because if you are working for nine dollars, he would be happy for the hypertension to kill you so that he could hire someone else to pay 7 dollars and 25 cents.

(P16)

### **System Level Influences: Workload**

No participants reported positive influences of the workload on their hypertension management. All 27 participants discussed having too much to do at work, which gave them stress and hindered them from staying calm which they perceived to increase their blood pressure. As shown in Table I, about 37% of the participants reported cleaning over 18 rooms. Although participants felt that they had too much to do, a bigger concern was around the fear of job loss and unemployment:

The housekeeping work now is a little harder. The work [is] for three people, [but] only you are doing it. There are no jobs. You end up working harder. Because before you used to do 15 rooms, 16 rooms. Now it's 18. Sometimes you do 19, 17. You have no choice because there are no jobs. Once you lose the job, you will not find another.

(P7)

Another participant said:

The hotel is not supposed to give you more than 17 rooms. The 18th is an extra. But you have to do it, because there are no jobs. If you lose your job you will not find another. You are obliged to do it. Because if every time they give it to you, you say no, the boss will not be happy with you.

(P3)



### System Level Influences: Work Pace

**Positive influences of work pace on hypertension management**—Work pace was the rapidity at which participants had to complete their tasks. Five participants considered the time pressure at work as aiding in their HTN management. They viewed having to run from room to room from the beginning to the end of their shift as a type of exercise. They associated exercising with positive approaches to hypertension management; therefore, they considered working fast and sweating as helping them manage their HTN. Participant 14 stated, “The work makes me exercise. When I work fast, I do exercise, water drips down on me.” (P14) Another participant noted: “If you are working it is a form of exercise. It gives you courage. And when you have hypertension and you are working, it is even four times better” (P7).

**Negative influences of work pace on hypertension management**—All 27 participants reported being under constant time pressure and being unable to stay calm throughout the shift. They considered staying calm to be a way of controlling their blood pressure; therefore, cleaning many rooms and being under time pressure to complete their tasks before the end of their shift was identified as hindering their ability to manage HTN. For example, because she had to complete 16–18 rooms by the end of her shift, Participant 2 reported that she had to work very fast throughout her shift:

When you are trying to be quick to finish your work. Well today I was under so much pressure I came home and had to lay down. I looked and realized that the rooms were not completed. I am supposed to finish at 4 and it was 2:40, and I had six rooms remaining. And if I don't go downstairs in time, I will get in trouble. I had to rush and work faster to see if I can finish. When I came home I had to lay down.”

(P2)

Moreover, some participants reported that their “water pill” (diuretic medication) increased their urination frequency. Unfortunately, due to the time pressure at work and the location of the staff restroom (which was often on the first floor of the multi-story hotels where they worked), the participants encountered a dilemma. They had to decide whether to keep cleaning the room they were working on (and which they were supposed to finish in 30 min) or take the elevator to go down to use the staff restroom. Workers were not allowed to use the restrooms in the rooms they were cleaning. Consequently the participants chose not to take the prescribed diuretic medication, since it increased urination frequency and could interfere with their work. Participant 14 said: “If I take the medication, I will pee a lot. Sometimes I do not take it because it makes me pee too much” (P14). Another participant stated:

Some days you have to go pee you need to go downstairs to go to the bathroom. You stand in front of the elevator, and you already pee on yourself, the elevator never opens. And going downstairs to go to the bathroom takes time. When you do go, you waste time while you need to complete the room.

(P24)

### System Level Influences: Work Hiring Practice

No participants reported positive influences of the work hiring process on HTN management. All study participants, including the four hired through agencies favored the hotel-hire practice. Respondents reported that hotel housekeeping was shifting more towards agency hiring. Four study participants were hired by agencies and not by the hotels directly. They reported that their jobs were less secure compared to the other workers hired by the hotels. For example, participant 19 stated:

It is an agency that hired me. They only pay me seven dollars. I have not made it anywhere because many times you find an agency that gives you a job and then you only go for one day.

(P19)

Individuals hired by agencies got paid less because the agencies retained a certain percentage of the employee's wage. Agency workers also did not receive the same benefits as those who were directly employed through the hotel. Participants mentioned that this phenomenon of agency-hire versus hotel-hire created a conflict among them. The agency-hired workers stayed together and resented those who had been hired by the hotels because their jobs were more stable. Conversely, the hotel-hired workers resented the agency workers, because they believed that their employer would fire them to hire more people from the agencies, since there were fewer contractual obligations with the agency-hired workers. In addition, the participants believed that those hired through agencies got paid less and that the hotels preferred them over the hotel-hired employees who received benefits and represented a greater overall cost to the employers. As participant 11 explained:

If I get paid eight dollars [an hour] and they fire me, they will hire someone at seven or six dollars. Now they hire more from agencies. The agencies pay less. And people from the agencies do not get all same benefits as I do as a hotel employee. For example, I am hired through the hotel, I get sick days, I can call in sick, they will pay me, I get vacation, and they will pay me. But the agency doesn't have those things.

(P11)

Individuals hired through agencies often did not get health insurance. Lack of insurance was reported to negatively influence hypertension management. These participants had the choice to purchase insurance; however, they opted not to do so because of their low income. Thus, they were unable to go to the doctor until they had a crisis, in which case they sometimes used the emergency room. Lack of insurance also impeded participants from purchasing and refilling medications that were required to help keep their blood pressure under control. Participant 11 stated:

They pay me 8 dollars and 75 cents. But if I took insurance the money would have been less. When I get paid, if I work 40 hours, even if I worked 67 hours, they will give me my money. But with the insurance, if they have to take out 200 dollars, that is what they will take out and they will give you the rest. It is not enough. That is why I do not take their insurance.

## Discussion

The findings of this qualitative study pinpoint several areas of work, both at the system level and individual level, which can be addressed to improve HTN management among workers. Disconcerting was the effect of agency hiring. Because agency-hired participants received no benefits, were paid less, and experienced job insecurity, they had more difficulties in maintaining routine medical visits and purchasing blood pressure medications. It has been documented that flexible employment allows employers to meet consumer demands with minimal obligations to their workforce, thus increasing worker's financial and health risks [DiNatale, 2001]. The National Institute for Occupational Safety and Health (NIOSH) [National Institute for Occupational Safety and health, 2002] identified the health risks of agency-supplied workers as one of the research gaps that needs to be addressed in order to determine the effects of the such practices on workers' health. This study attempted to address this gap.

Previous studies on work-hiring practices have focused on cost and economic impacts of such practices on the hotels and also the training and career development of hotel workers [Lai et al., 2008; Soltani and Wilkinson, 2010a,b]. These studies found that agency-hired workers (also called flexible workers) were cheaper labor than the hotel-hired workers, received less training, and had fewer avenues for career development [Soltani and Wilkinson, 2010a,b]. Other studies have reported poor health outcomes of flexible employment on workers' health including: psychological distress [Sirviö et al., 2012; Virtanen et al., 2005], and higher risk for occupational injuries [Benavides et al., 2006].

Workload also had a negative influence on participants' management of hypertension. Hotel housekeepers' workload includes bringing requested items to hotel guests, pushing carts, moving furniture, fixing beds, cleaning bathrooms, vacuuming, and dusting [Faulker and Patiar, 1997; United States Department of Labor Bureau of Labor Statistics, 2010]. Because of the global economy, and growing high demand for customer satisfaction and luxurious rooms, hotel housekeepers' workload continues to be intensified, thus placing the workers at higher risk for work-related health problems [Krause et al., 2005]. According to Johnson [2008] “[today] “hotels are being extensively remodeled through greater use of marble surfaces, mirrors, chrome, larger pillows, heavier mattresses, and more labor intensive bed linens and towels” (p. 192).” Despite these renovations, which bring with them a heavier workload, housekeeping workers are expected to perform at the same rate as before, and for the same compensation. In this study, participants' discussed their increased workload and its negative impact on their hypertension management by preventing them from staying calm and keep their blood pressure at a lower level. Adding to their workload, participants had to complete their tasks at a fast rate (work pace). This pressure of high productivity within a short period of time resulted in the participants not taking their diuretic blood pressure medications because they wanted to reduce the frequency of bathroom trips.

Previous studies have reported that low level of mutual support among co-workers can result in stress and thus potentially increase the risk for HTN development [André-Petersson et al., 2007; Guimont et al., 2006; Siegrist, 1996a,b; Siegrist et al., 2004]. The findings from this study identified similar factors influencing HTN management among Haitian immigrant hotel housekeepers. The study also found that support from supervisors can help workers manage their hypertension.

Moreover, trans-border relationships have both positive and negative influences on immigrant workers' management of hypertension. This study expands the occupational health literature by exploring the role work plays in HTN management among immigrant workers. The U.S. has historically been, and is projected to continue being, a nation reliant on immigrant labor [Lee and Mather, 2008]. Therefore, addressing the health and well-being of immigrant workers is beneficial to the country's labor force and global economic stance. It is clear from the findings of this study that work has major influences on the way Haitian immigrant hotel housekeepers manage their hypertension.

## Implications

The study results indicate the need for employers to be aware of and consider the relationships between work organization and workers' health, including work hours, workload, and benefits. Work organization accounts for workplace structure, workload, and interpersonal relationships at the workplace [National Institute for Occupational Safety and health, 2002]. Across the individual and systems level influences of work, there were more reports of negative than positive influences on HTN management. It is important for employers to be aware of their employees' health needs and make culturally appropriate changes accordingly.

The study findings also indicate a need for policy to address hotel housekeeper needs. As noted by Hsieh et al. [2013], given this understudied populations' work-related health risks, interventions at the legislative level are of utmost importance to address their needs. For example, policies are needed to regulate employee workload. Policies are also needed to remediate the health risks of agency-hired workers. Involvement of labor unions is also needed to represent hotel housekeepers and help negotiate various aspects of their work including workload, benefits, and working conditions.

The findings also indicate the need for nurses and other healthcare professionals to take a holistic approach when caring for this occupational group. HTN medications have been proven to improve the life of patients with HTN; however a sole emphasis on prescribed medications may not suffice. Factors such as type of work, workload, and sense of social support from co-workers and supervisors at the workplace all influenced participants' ability and willingness to take necessary measures to manage their HTN. It is critical for nurses and other healthcare providers, including occupational health professionals, to be aware of work aspects that affect HTN risk and HTN management among this immigrant worker group. This study shows that it is germane for healthcare professionals to work with this worker group to determine the appropriate HTN medication to ensure medication adherence, decrease work interruptions, and promote worker health.

### Limitations

A limitation of the study is that the study sample was not randomly selected. Thus the experience of the study sample is not representative of the experience of all immigrant hotel housekeepers in Florida. More studies are needed to explore this phenomenon among other immigrant groups. The sample size of 31 was sufficient to reach data saturation (depth and breadth).

Another limitation of this study is that participants were unable to take photographs at the workplace to depict how work influences their hypertension management. The photo-voice method has been used in research studies as a form of empowerment to give voice to individuals as they document their experiences and any factors/anyone impacting their life and well-being [Wang and Burris, 1994; Wang and Redwood-Jones, 2001]. However, for this study, participants did not bring the cameras to their work because: they did not want to be accused of stealing the disposable cameras; fear of reprisal from supervisors; and time constraints. Researchers are urged to consider participants' vulnerability relating to both intended and unintended consequences when using the photovoice method [Evans-Agnew et al., in press]. Despite these setbacks, the photovoice method strengthened the study in several ways. Through photovoice, participants were able to identify herbal medicines that they used to manage their hypertension. Discussions of the pictures supported the previous accounts in the first interviews about management of hypertension. Discussion of the inability to take pictures at the workplace also reinforced the fact that this immigrant worker group is marginalized and that research methods need to be selected with additional consideration and feasibility assessment.

### Significant Contribution to the Literature

To the author's knowledge, this is the first study that has explored the influences of hotel housekeeping work on hypertension management. The current literature on hotel housekeepers has mainly focused on their workload, avenues for personal and professional growth, and the growth of the industry [Hunter Powell and Watson, 2006, Kandampully and Suhartanto, 2000]. Additionally, there are studies about psychological outcomes such as stress, emotional distress, and feelings of burnout [Erkal and ahin, 2012] and physical health outcomes of musculoskeletal problems such as back pain and injuries [Buchanan et

al., 2010; Krause et al., 2005; Scherzer et al., 2005]. This study shows that research about the health and safety of hotel housekeepers must account for their ability to take care of their chronic diseases, both within and outside of the workplace. As one of the 10 most expensive health conditions for employers in the United States, having HTN under control is not only beneficial for the workers but also for their employers.

## Acknowledgments

This project was funded by a grant from the Psi-Chapter-at-Large of Sigma Theta Tau, The International Nursing Honor Society, and the Hester McLaws Nursing Scholarship from the University of Washington. The author also wishes to thank Dr. Marjorie McCullagh for her feedback on an early version of this work.

Contract grant sponsor: Psi-Chapter-at-Large of Sigma Theta Tau; Contract grant sponsor: The International Nursing Honor Society; Contract grant sponsor: University of Washington.

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**Table I**  
**Reported Number of Rooms Cleaned on a Given Shift**

<b>Number of rooms cleaned</b>	<b>n</b>	<b>%</b>
Valid		
6–10	1	3.7
11–15	12	44.4
16–18	4	14.8
18 and over	10	37.0
Total	27	100