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OCCUPATIONAL HEALTH DISPARITIES AMONG RACIAL AND ETHNIC MINORITIES

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ABSTRACT

In this chapter, we have proposed that an important approach to understanding occupational stress and well-being among racial and ethnic minority workers is to integrate the occupational health disparities paradigm into work stress research. As such, the current chapter provides a state-of-the-art review of the existing literature on occupational health disparities for Latinos, Asian Americans, and African Americans. Each of the three sections has highlighted the unique occupational health problems encountered by the specific racial and ethnic group as well as the research and policy gaps. We end with a series of recommendations for future research.

Keywords: Occupational health disparities; racial and ethnic minorities; prejudice and discrimination

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The Institute of Medicine report *Unequal Treatment: Confronting Racial and Ethnic Disparities in Healthcare* brought national attention to health disparities in America. Summarizing a large body of research, the report shed light on the pervasive existence of racial and ethnic disparities in health care and health outcomes. For example, it was found that racial and ethnic minorities are less likely to receive cardiovascular procedures, cancer treatments and analgesics, and kidney transplants (Smedley, Stith, & Nelson, 2003). Although health care disparities have been well documented, relatively little is known about occupational health disparities, which is the purview of the National Institute for Occupational Safety and Health (NIOSH). More so, even less is known about occupational health disparities among racial and ethnic minorities. The workforce in America is becoming increasingly diverse, reflecting changes in the demographics of the country, and revealing that these populations can no longer be overlooked. Therefore, any research effort to understand occupational stress will also need to address issues of occupational health disparities among racial and ethnic minorities, which is the purpose of this chapter.

The mission of the Occupational Health Disparities (OHD) program within the NIOSH is to: (a) improve surveillance of vulnerable populations and (b) identify research methods, intervention approaches, and dissemination tools to better reach these populations. The OHD program therefore seeks to improve “these tools and tailoring them to the unique characteristics of vulnerable and hard to reach populations to allow occupational health researchers and practitioners to better identify health disparities and work towards their elimination” (retrieved from <http://www.cdc.gov/niosh/programs/ohd/>).

In support of the OHD program, the purpose of this chapter is to describe and analyze the occupational health disparities experienced by these three racial and ethnic groups (both authorized and/or undocumented) in the United States. With specific reference to occupational stress and well-being, this chapter will provide a state-of-the art review of occupational health disparities among African Americans, Latinos, and Asian Americans with a focus on immigrant subgroups for the latter two ethnic groups. However, the chapter will not focus exclusively on immigrants since there are important occupational health disparities facing nonimmigrant racial and ethnic minorities as well. In view of the focus for this volume, we will also address the linkage between occupational health disparities among these racial and ethnic minority groups and the current context of the economic downturn.

Within racial and ethnic minority groups, it is the immigrant subpopulation that is more vulnerable to health disparities. It is estimated that there

are over 38 million immigrants living in the United States (Pew Hispanic Center, 2010). The majority of immigrants (61%) originate from two geographic areas. The larger group (16 million) is from Latin America. Passel and Cohn (2009) estimate that 9.6 million of the Latino immigrants are undocumented. The next largest immigrant group (7.2 million) is from South and East Asia (Pew Hispanic Center, 2010). It is estimated that 1.5 million of these Asian immigrants are undocumented (Passel, 2006), making them the second largest unauthorized immigrant group in the United States. Although comprising a smaller percentage of the immigration population, approximately 8% of blacks are foreign born from predominantly Caribbean and African nations and they face unique socioeconomic challenges different from U.S. born blacks (Mason & Austin, 2011).

Passel and Cohn (2009) report that undocumented immigrants tend to be more poorly educated than either authorized immigrants or native-born citizens. In addition to barriers of language, culture, and documentation status, many unauthorized immigrants have limited employment opportunities due to low levels of education. It is not surprising that Hudson (2007) found evidence that citizenship status accounts for more variance in predicting occupation than race or gender. Orrenius and Zavodny (2009) report that due to having a very restricted range of employment opportunities, immigrants are far more likely to work in dangerous, low-wage jobs than native-born workers. Consequently, these immigrants are more likely to be killed or injured on the job, and are less likely to have health insurance than native-born workers. Conversely, relative little is known about occupational health disparities among African Americans and Asian Americans. Our chapter ends with recommendations for policy implementation and future research directions.

LATINOS

Overview of the Latino population

Individuals of Latino descent now form the largest ethnic/racial minority group in the United States. From their analysis of 2010 Census data, Passel, Cohn, and Lopez (2011) estimate that there are nearly 50.5 million Latinos living the United States, comprising 16.3% of the nation's population. The National Research Council (2003) estimates that by the year 2050, a quarter of the United States' population will be Latino, as will be 15% of the workforce. The Pew Hispanic Center (2011)

estimates that 74% of Latinos are United States citizens and that 37% are foreign born.

The term Latino refers to those individuals (and/or their descendants) coming from areas of North, Central, or South America, and the Caribbean that were formerly Spanish colonial possessions (United States Census Bureau, 2011). In applying such a broad “label,” one risks glossing over important differences in culture, geography, ethnic/racial composition, and economic development between these Spanish-speaking peoples and their countries of origin. The Pew Hispanic Center (2011) reports significant differences in education, income, and language proficiency among Latino national groups that have immigrated to the United States. Compared to South Americans, Mexicans and Central Americans tend to be more poorly educated, have lower household incomes, and are less likely to speak English. By far, the largest nationality group of immigrants is from Mexico, accounting for almost 24% of all Latinos living in the United States and 63% of all Latino immigrants to the United States (Pew Hispanic Center, 2009). Combined, immigrants from the nearby Central American countries of El Salvador, Guatemala, Honduras, and Nicaragua make up approximately 5.5% of the total number of Latinos in the United States and nearly 15% of all Latinos immigrating to the United States.

New Settlement Patterns

In the past, immigrants from Mexico and Central America tended to settle in areas of the United States already having large existing Latino populations. Most settled in California, Arizona, New Mexico, and Texas. However, in recent decades there has been a significant change in settlement patterns. The Pew Hispanic Center (2005) reported that areas of the Midwest and Southeast that had not traditionally been settlement destinations had experienced explosive growth in their Latino populations. Compared to immigrants in “old settlement” areas, immigrants to “new settlement” areas face many challenges related to the lack of an established Latino community. The Latino communities in old settlement areas are often hundreds of years old and have a well-established identity, both within the community itself, and between it and the non-Latino community and governmental groups that it interacts with. In many new settlement areas, the Latino population has gone from near zero to tens of thousands within a decade. Consequently, there is near total lack of a Spanish-speaking infrastructure among employers, social service agencies, school systems, and

law enforcement. In addition, these new communities have not had time to organize from within or to establish understanding and ways to interacting with the non-Latino receiving communities. Most traditional settlement areas are a robust mixture of native-born Latinos, recent, and non-recent immigrants. In new settlement areas, nearly everyone is a recent immigrant. As a result, there may be no “old hands” available to help ease the transition to living in the United States. These challenges are exacerbated by another significant difference between old and new settlement areas. In old settlement areas, immigrants tend to move to existing Latino communities, which were typically in large urban centers. In the new settlement areas, immigrants are more likely to be found in suburbs or smaller communities than inner city neighborhoods. This dispersion makes it harder both for the immigrant communities to coalesce and organize, and for the receiving communities to develop mutually beneficial methods of interaction. [Passel et al. \(2011\)](#) report that the most recent census data suggests that the rapid growth of Latino communities in new settlement areas is an ongoing trend.

Occupational Health Disparities

Any differences in disease incidence, severity, and/or morbidity that exist between discrete worker populations may be termed an *occupational health disparity*. The Centers for Disease Control and Prevention ([CDC, 2008](#)) reported in 2006 that there were 19.6 million Latino workers in the United States, of whom 56% were foreign born. As a group, Latino workers suffer significantly higher rates of workplace mortalities (5.0 per 100,000) than all workers (4.0), non-Latino white workers (4.0), or non-Latino black workers (3.7). However, this occupational health disparity appears to be driven by nativity rather than ethnic/racial status. Native-born Latino workers have a mortality rate of 3.5 per 100,000 as compared to 5.9 for foreign-born Latinos.

Nonfatal occupational injury and illness rates among Latinos are also elevated when compared to non-Latinos ([Richardson, Ruser, & Suarez, 2003](#)). Unfortunately, the following statistics do not differentiate between native-born and immigrant Latinos. However, given the fatality statistics above, it seems likely that the disparities arise from injuries and illnesses experienced by immigrant workers. Between 1998 and 2000, Latino men had the highest overall relative risk (1.51) of nonfatal occupational injuries and illnesses. This compares to a relative risk of 1.07 for white, non-Latino men

and of 1.40 for black, non-Latino men. Although Latinas were not at greater risk (1.0) when compared to all working women (1.0), they were at greater risk when compared to white, non-Latina women (0.76). However, Latinas were at slightly lower risk than black, non-Latina women (1.06).

When compared to all other Latinos working in all industries, Latino men employed in the construction industry had the highest rates (31.2 per 100,000 workers) of nonfatal occupational injuries requiring time away from the job (Richardson et al., 2003). When compared to all other Latinos working in all occupational groups, Latino men working as construction laborers had the highest rates (13.9) of nonfatal occupational injuries and illnesses requiring time away from the job. Overall, between 1998 and 2000, Latino men had a relative risk of 1.80 for nonfatal occupational injuries and illnesses requiring time away from the job as compared to 1.68 for white, non-Latino men and 1.76 for black, non-Latino men.

In a more recent study, Forst, Avila, Anozie, and Rubin (2010) tracked occupational injuries for an 8-year period at a large urban trauma center. Between 2000 and 2008, the data indicated a fairly stable number of injuries among whites, blacks, and Asians. However, the annual number of Latinos seeking treatment for work-related injuries more than doubled.

Although work-related fatalities are trending downward, there is evidence to suggest that the occupational health disparities experienced by Latino immigrant workers may actually be widening when compared to other workers in the United States. Richardson et al. (2003) reported that between 1995 and 2000 the fatal work injury rate for all workers in the United States was 4.6 per 100,000. This compares to a rate of 4.5 for native-born Latinos and 6.1 for foreign-born Latinos. Simple arithmetic yields a difference in mortalities of 1.5 per 100,000 between foreign-born Latinos and all workers. The later report by the CDC (2008) indicates a difference of 1.9 per 100,000 between these two groups. Given such statistics, the focus for this section will be on Latino immigrant workers rather than native-born Latinos.

It is important to note that as significant as these disparities are, there are reasons to believe that injuries, particularly nonfatal injuries, among Latino workers are underreported (Brown, 2003; Dong & Platner, 2004; Richardson et al., 2003). Latino immigrants who are in the United States without documentation fear job loss at best and deportation at worst if they report workplace injuries (CPWR, 2004; O'Connor, Gildner, & Easter, 2000; Walter, Bourgois, Loinaz, & Schillinger, 2002). In addition, given the need to repay loans used to pay for their immigration and the need to financially assist family members remaining at home, most undocumented

immigrants face significant economic pressures to ignore unsafe working conditions, to shrug off injury, and to work through pain.

Occupational Distribution

The employment opportunities for many Latino Immigrants are often referred to as “3D jobs” (dirty, dangerous, and degrading; Benach, Muntaner, Chung, & Benavides, 2010). Hudson (2007) found that citizenship status accounts for more variance in predicting occupation than race or gender. This may be further exacerbated by documentation status. Orrenius and Zavodny (2009) report that due to having a very restricted range of employment opportunities, undocumented immigrants are far more likely to work in dangerous, low-wage jobs than native-born workers. Passel and Cohn (2009) estimate that approximately 60% of foreign-born Latinos are undocumented.

Popular stereotypes of Latino immigrants are that most work in agriculture or as day laborers. Although they may be the most visible immigrant workers, at any given time less than 1% of Latino immigrants are working as day laborers (Valenzuela, Theodore, Melendez, & Gonzalez, 2006). Similarly, only 5% of Latino immigrants work in agriculture (Pew Hispanic Center, 2009). The vast majority of Latino immigrants are employed in four broad sectors: construction 15.7%, manufacturing 13.0%, wholesale and retail trade, transportation and warehousing 15.8%, and services 43.1%. As was discussed above, Hudson (2007) found that citizenship status accounts for more variance in predicting immigrant occupation than race or gender. The work of Eggerth, DeLaney, Flynn, and Jacobson (2012) suggests that Latina immigrants are channeled into a very narrow range of jobs in the United States. In a sample of 53 Latinas, only 1 had worked in the service industry prior to immigrating. At the time of the study, 40 (75%) were employed in service industry jobs, mostly commercial cleaning or food preparation.

Risk Perception

It is possible that some of the occupational health disparities experienced by Latino immigrants may arise from differences in behaviors related to risk taking (Schenker, 2010a). In their review of risk perception research, Rohrman and Renn (2000) identified *magnitude of risk* and *risk acceptance*

as the two core variables common to all models of risk perception. Magnitude of risk refers to the evaluation of how hazardous a given situation is. Risk acceptance refers to the willingness to accept a given risk, independent of the perceived magnitude of that risk. Many Latino immigrants are employed in jobs or industries very different than they worked at in their home countries. Consequently, they may be unfamiliar with the hazards of their new places of employment. Effectively educating immigrant workers about these unfamiliar hazards involves overcoming a host of challenges related to barrier of language and culture (NRC, 2003). Even when immigrants find employment in jobs similar to those held in their home countries, they may fail to appreciate how differences of scope, scale, and/or pace of work may heighten the danger of “familiar” activities. For example, Arcury, Quandt, Rao, and Russell (2001) found that Latino immigrants working in industrial agriculture settings in the United States tend to greatly underestimate the health hazards associated with pesticide usage, even though they had used similar products in their home countries on their family farms.

Among the most important factors impacting risk acceptance are the benefits associated with taking a given risk (Rohrman & Renn, 2000). A risk whose benefits satisfy important societal and/or individual human needs is more likely to be accepted than one that does not. The equitability of potential risks to possible benefits also greatly impacts risk acceptance. There can be significant cultural differences in risk acceptance (Rohrman, 2000). Latino immigrant workers may have a number of factors which would contribute to a willingness to accept a higher level of risk than American-born workers. Feeling vulnerable to threats of deportation, dismissal without cause, and blacklisting, many immigrant workers are afraid to bring concerns about workplace safety to the attention of their supervisors (CPWR, 2004; Walter et al., 2002). Many Latino immigrant workers report that the basis of their attractiveness to American employers is that Latinos “work hard” and “don’t complain” (Gomberg-Muñoz, 2010; O’Connor et al., 2000; Stuesse, 2009). Some Latino immigrant workers realize that they are working in more hazardous conditions than American workers, but accept the situation because it is no worse than what they experienced in their home countries.

Several studies report that Latino immigrant workers feel they have no control over workplace safety and they can only accept the dangers there (Grieshop, Stiles & Villanueva, 1996; Vaughan, 1993a, 1993b). The risk acceptance of Latinos has sometimes been connected with the hypothesized cultural trait of *fatalismo* (Antshel, 2002; Cuellar, Arnold, & Gonzalez,

1995). Fatalismo (fatalism) refers to the extent that individuals believe that their destinies are beyond their control. Antshel (2002) reviewed research that suggested that Latinos are more likely than non-Latinos to believe that negative life events are determined by God and therefore must be accepted and endured. Cuellar et al. (1995) pointed out that although the passiveness associated with fatalismo can lead to negative consequences, it should also be recognized that in some circumstances the acceptance of events as they occur may actually be adaptive. Fatalism might better be thought of as a culturally familiar coping strategy for reducing the emotional distress associated with dangerous employment situations than as a causal factor leading Latino immigrants to take dangerous jobs.

Acculturative Stress

Adapting to life in a new country places many demands upon an immigrant. A new language must be learned, changes in business and social interactions must be mastered, and an immigrant's self-image, attitudes, and beliefs related to a broad range of activities and events are challenged daily. The psychological tension that arises from adapting to these demands has been termed acculturative stress (Williams & Berry, 1991).

For some, the life and lifestyle changes due to immigration are a mixed blessing. Menjivar (1999) reported that on one hand, Latin American women perceived greater opportunities for employment in the United States and reported a rise in self-esteem due to their economic independence. On the other hand, these Latinas also reported that this same independence challenged traditional gender roles, particularly that of the male as provider for the family. Some Latinas reported that this upending of roles gave rise to demeaning or violent behavior on the part of their husbands as they attempted to reassert their traditional masculine role in the family. Another significant source of stress for some Latino immigrants is documentation status. Cavazos-Rehg, Zayas, and Spitznagel (2007) studied emotional well-being among Latino immigrants in a Midwestern city. They found that 39% of the participants surveyed reported concern that they risked deportation if they sought services through a social or government agency. The study found a significant relationship between fear of deportation and both higher levels of emotional distress and lower levels of physical health.

Considering the many stressors impacting Latino immigrants, one might expect them to experience higher rates of psychiatric disorders. However, this is not the case. Vega, Sribney, Aguilar-Gaxiola, and Kolody (2004)

report the prevalence of psychiatric disorders among Latin American immigrants to the United States is less than half that of the general population in the United States. Factors that increase the risk of a psychiatric disorder among Latin American immigrants include being younger at time of immigration and the longer one has lived the United States. One explanation for the lower rates of psychiatric disorders among Latino immigrants is that only the most physically and mentally healthy individuals are willing to face the challenges inherent to immigration. This has been called the “healthy immigrant” effect.

Another explanation for these findings is that it merely reflects lower base rates of psychiatric disorders in the immigrants’ countries of origin. Vega et al. (2004) report that epidemiological studies conducted in Mexico found significantly lower rates of mental illnesses than in the United States. Regardless of etiology, these differences disappear within a generation following immigration, with the children and grandchildren of Latino immigrants suffering psychiatric disorders at the same rate as the general population of the United States (Alegria et al., 2007). It should be noted that these findings stand in sharp contrast to European studies which find significantly higher levels of psychiatric disorders among immigrants (Silveira & Ebrahim, 1998; Zolkowska, Cantor-Graae, & McNeil, 2001), which may persist several generations in their offspring (Hutchinson & Haasen, 2004).

Summary

The Latino population recently became the largest ethnic/racial minority group in the United States. Approximately 74% of Latinos are United States citizens and 37% are foreign born. It is estimated that by 2050, 15% of the American workforce will be of Latino descent. Surveillance data suggests that as a group Latino experience significant occupational health disparities when compared with all other United States workers (mortality rates of 5.0 per 100.00 and 4.0, respectively). Closer examination suggests that this disparity is driven by nativity rather than ethnicity, with native-born Latinos suffering from a mortality rate 3.5 per 100,000 as compared to 5.9 for foreign-born Latino workers.

It has been suggested that this disparity is driven by a number of factors, most of which are exacerbated by 60% of Latino immigrants being undocumented. Because of their lack of legal status, these immigrants are very constrained in their occupational opportunities. Most are employed

in what are characterized as “3D jobs” – dirty, dangerous, and degrading. Their lack of documentation leaves many immigrants open to exploitation by unscrupulous employers. Financial pressures to send monetary remittances home and/or to repay loans used to pay for their immigration, coupled with lack of job opportunities pressure many immigrants to accept unfair treatment, unsafe work conditions, and to work while injured. The difficulties inherent to addressing the concerns of this worker group have been compounded by recent changes in settlement patterns. Increasing numbers of Latino immigrants are now moving to the Midwestern and Southeastern states that have not traditionally been destinations for this population. Without an established bilingual infrastructure or the advantage of decades to build a mutual cultural understanding between host communities and immigrants, public health agencies, employers, unions and government agencies in these areas were, and often remain, unprepared to deal with this sudden, large influx of Spanish speakers.

ASIAN AMERICANS

Overview of the Asian American Population

This section will be devoted to an overview of the demographics of the Asian American population. Almost 6% of the U.S. population – more than 17 million people – identify themselves as Asian Americans ([United States Census Bureau, 2011](#)). Between 2000 and 2010, this population increased by 43%, making it the fastest growing racial group in America. Much of this population growth has been, and continues to be, from immigration. Almost two-thirds of Asian Americans are foreign born, with most arriving since 1965 after the abolishment of immigration policies that were designed to prevent non-European people from immigrating to America. Today, approximately one-third of the nearly 1 million legal immigrants that enter the country each year are of Asian descent ([U.S. Equal Employment Opportunity Commission, 2008](#)).

As a group, Asian Americans have achieved notable social and economic success. Data from the U.S. Census Bureau show that Asian Americans surpass every other racial group on many socioeconomic health indicators, including rate of college degree attainment (49%) and median household income (\$68,549) ([Asian American Center for Advancing Justice, 2011](#)). Aggregated statistics such as these have served as the basis for the view of Asian Americans as the “Model Minority,” standing as an exemplar of hard

work and patience for other minority groups to emulate in their quest to achieve the American dream (Tang, 1997).

However, this view of Asian American success arises from an *ethnic gloss*, which is the overgeneralization of ethnocultural groups that obscures differences among subgroups and homogenizes and veils the diversity within the population (Trimble & Dickson, 2005). In actuality, Asian Americans are a diverse group consisting of at least 25 unique ethnicities with different histories of immigration, educational and occupational characteristics, and socioeconomic backgrounds (Kim & Park, 2007). While many in the Asian American community enjoy economic success and stability, disaggregated data reveal that some ethnicities, especially Southeast Asian groups, struggle with severe socioeconomic hardships (Asian American Center for Advancing Justice, 2011).

Current Knowledge-Base

Despite the growing number of Asian Americans, there is a dearth of empirical knowledge about the occupational health of this population (Tsai & Salazar, 2009). Due to the Model Minority stereotype, those with fewer skills face significant challenges that are rendered invisible when we focus on the larger group. Based on an analysis of the bimodal distribution of Asian Americans in the U.S. occupational structure, we provide a profile of Asian American occupational health disparities related to such risk factors as occupational segregation and barriers, discrimination, and poor work conditions. We will also pay particular attention to Asian immigrants who are at high risk for occupational stress. The occupational stress model by Osipow and Spokane (1987) will serve as the theoretical framework for our review but with the added cultural dimension. It contains the following three overarching domains: perceived occupational stress, experienced personal strain, and coping resources.

Stressors

Ergonomic Hazards

Asian American workers frequently encounter improper work methods and improperly designed workstations, tools, and equipment. As a result, they are often subject to awkward postures, heavy lifting, forceful exertions, vibrations, and repetitive motions. Ergonomic hazards such as these pose

harm to the musculoskeletal system of the worker, resulting in painful injuries to the muscles and joints. Studies of Asian American electronics assembly workers have highlighted the dangers of prolonged sitting and standing, prolonged computer and microscope use, and repetitive motions (Azaroff, Levenstein, & Wegman, 2004). Consequently, they frequently experienced backaches, headaches, eye strain, and general ill health. Apparel manufacturing is another industry with poor working conditions in which Asian immigrants predominate in many parts of the country. Studies of Chinese immigrant garment workers in California have found ergonomic problems with their workstations, such as nonadjustable chairs and frequent bending or twisting, resulting in nerve entrapment disorders and strain of the spine or upper extremities (Burgel, Lashuay, Israel, & Harrison, 2004; Wang, Harrison, Yu, Rempel, & Ritz, 2010). The dangers of ergonomic hazards are magnified for Asian American workers because many of them are unaware of their worker rights; many of the garment workers who experienced work-related injuries were eligible for worker's compensation, but were reluctant to file claims because they lacked knowledge of the process or were fearful of losing employment (Burgel et al., 2004; Pun, Burgel, Chan, & Lashuay, 2004).

Chemical Hazards

Asian American workers are frequently exposed to chemical preparations in the workplace that interact with body tissues and cells, with potentially deleterious effects on human health. For example, Chinese immigrant restaurant workers often use strong bleach and detergent to clean floors, tables, kitchen counters, and stoves (Tsai & Salazar, 2007). Vietnamese women make up almost 40% of all nail technicians in the United States, and they are continuously exposed to nail products which contain a variety of chemical ingredients, including solvents, plasticizers, and dispersants (Roelofs, Azaroff, Holcroft, Nguyen, & Doan, 2008). In their study of Vietnamese nail technicians, Roelofs et al. (2008) found that almost one-third of the technicians surveyed had respiratory symptoms and skin problems that improved when they were away from work.

Safety Hazards

Safety hazards arise from the physical space of the workplace, and can include hot surfaces, slippery floors, working at heights, fire and electrical hazards, sharp objects, and poor lighting (Lee, 2009). The dangers of the physical work environment have been documented among Asian American restaurant workers. Tsai and Salazar (2007) reported that Chinese

immigrant cooks and waitpersons frequently encounter extreme heat from hot liquids, steam from cooking, and environmental heat in the kitchen. Similarly, a study of Asian restaurant workers in New York City revealed that 38% of workers had been burned, 46% had been cut, and 19% had slipped and become injured while at work ([Restaurant Opportunities Center of New York, 2005](#)). A study conducted among restaurant workers in San Francisco's Chinatown district revealed that only 7% of cooks wore long-sleeved shirts or jackets to prevent burns, 76% of range tops were overcrowded with cookware, and 86% of restaurants had improper storage of knives ([Minkler et al., 2010](#)). In addition, 70% of floors were wet and greasy, and 51% of restaurants lacked sufficient quality nonslip mats. Fourteen percent of restaurants had no first aid kits, and 73% had first aid kits containing only band-aids.

Psychosocial Hazards

A significantly common psychosocial hazard that Asian American workers experience arises from violence experienced in the workplace. It includes harassment, verbal abuse, threatening behavior, and physical assaults. These can come from customers, domestic partners, or coworkers ([Lee, 2009](#)). Violence in the workplace is the most common cause of fatal work injuries for Asian Americans. In 2010, the leading cause of death for Asian American workers was an assault or violent act, with 43% of the fatalities for Asian workers being homicides. This is a rate significantly higher than that of other races ([Bureau of Labor Statistics \(BLS\), 2010](#)). Asian Americans are heavily represented in retail, transportation, and service sectors, and injuries from violent acts account for almost 50% of all occupational fatalities in those industries ([BLS, 2007](#)).

Asian American women who work at massage parlors are especially at risk for physical, verbal, or emotional abuse and violence. [Nemoto, Operario, Takenaka, Iwamoto, and Le \(2003\)](#) revealed that, due to financial hardship, many massage parlor women frequently engage in sexual risk behaviors with clients in order to make more money. It was found that women who worked an average of ten and a half hours a day had sex with an average of almost 27 clients a week. Over half (62%) had been physically beaten by a customer, and 45% reported physical threats from customers. Masseuses also disclosed that their customers would sometimes rape them, and that they are frequently exposed to Asian gang-related activities ([Nemoto, Iwamoto, Wong, Le, & Operario, 2004](#)). These instances contributed to a chronic sense of fear among the massage parlor workers, as well as a sense of resignation to the dangers of their work environment.

Another source of psychosocial stress that Asian Americans disproportionately face in the workplace is discrimination. A 2005 Gallup survey revealed that 31% of Asians had been subject to discrimination or unfair treatment, the largest percentage of any racial or ethnic group (Rosenberg, 2009). Despite the large amount of perceived discrimination, only about 2% of all discrimination charges in the private sector and 3.26% in the federal sector are filed by Asian Americans, a rate that is less than that of other groups. Thus, it is likely that our discrimination complaint statistics underestimate the true amount of discrimination that Asian Americans experience in the workplace.

The Model Minority stereotype, although providing a generally positive representation of Asian Americans, carries with it insidious and invidious consequences. According to Lin, Kwan, Cheung, and Fiske (2005), Asian Americans are perceived to be excessively competent, which not only can lead to unfair performance demands and increased pressure to meet expectations, but may also engender resentment from coworkers. At the same time, Asian Americans are often viewed as being passive, unassertive, lacking linguistic and cultural competence, and are therefore thought to have poor leadership skills. Consequently, Asian Americans often face work environments unwilling to give them executive or managerial positions, a phenomenon dubbed the “bamboo ceiling” (Leong & Grand, 2008; Wu, 1997).

Acculturative Stress

Because almost two-thirds of Asian Americans are immigrants, the stress that this population experiences is commonly due to the demands and challenges when adapting to their new host country (Lee, Lei, & Sue, 2001). Although we do not yet have the consistent empirical data, it is logical to think that the stress arising from this acculturation process will also carry over to the workplace.

Previous literature has identified several factors that can result in higher levels of psychological discomfort for first-generation immigrants, including discrepancies in role expectations, loss of social networks, lack of linguistic competency, and differences in values and norms with the host country (Nicholson, 1997; Padilla, Wagatsuma, & Lindholm, 1985). More recently, Hwang and Ting (2008) found language conflict, social conflict, perceived discrimination, perceptions of a closed society, and perceived acculturation gap between parents and children to be significantly associated with higher levels of psychological distress and clinical depression among Asian American college students.

Acculturative stress is also seen in later generations. Padilla et al. (1985) examined acculturative stress among Japanese American college students and found that second-generation Japanese students reported higher stress scores than the third and later generations. Padilla et al. (1985) speculated that the second-generation groups were caught between the cultural values of their parents and those of the dominant society.

Strains

Many Asian refugees and immigrants were forced to flee their homeland, often against their will and under extremely dangerous conditions. The intense psychological trauma that these individuals experience is further aggravated by cultural differences in their host country. These pre- and post-migration factors among Southeast Asian refugees have contributed to a wide variety of strains (Kinzie, 2001), including PTSD and post traumatic stress syndrome, and it is logical to assume that these strains may be brought into the workplace. Nicholson (1997) found that many Southeast Asian refugees are affected by significant mental health problems. In their study, 40% of Southeast Asian refugees suffered from clinical depression, 35% from clinical anxiety, and 14% from PTSD. Those who reported more pre-arrival trauma and degree of current stress scored higher for depression, anxiety, and PTSD.

Substance abuse is a common manifestation of psychological strain among Asian Americans. Erickson D'Avanzo (1997) reviewed studies of Southeast Asians refugees who had fled their war-ridden home countries during 1975–1977 and 1978–1980 to seek asylum in America. Many of these refugees encountered traumatic experiences, and also found the acculturation process of transitioning to a life in Western society to be difficult. As a result, many of them admitted to using tobacco, alcohol, and other drugs as a coping mechanism to alleviate physical pain or psychological symptoms. Opium was also commonly abused, suggesting that immigrants continue the drug use patterns that they had in their country of origin. In addition, there are differences in substance use among certain Asian subgroups. For instance, prevalence rates for alcohol use among the more acculturated Japanese and Korean men were similar to that of Americans, but were more common among the less acculturated Southeast Asians.

An unfortunately common manifestation of psychological strain among certain Asian groups is suicide. Among participants in the 2000 National College Health Assessment Survey (CHA), Asian American students were

1.6 times more likely to have seriously considered attempting suicide than white students (Kisch, Leino, & Silverman, 2005). In a quantitative study by Chung (2003) that examined the motivations of suicidal behavior of Asian American female college students, several Asian cultural values and norms were found to have possibly contributed to their emotional distress and motivated suicidal behavior. There is also evidence that acculturative stress and poor assimilation into the host society impacts the mental well-being and suicide potential of Asians. Lee, Chang, and Cheng (2002) examined the relationship between acculturation and suicide among the Chinese in Taiwan. They found that lower degrees of social assimilation was associated with a higher risk of suicide in the Atayal and the male groups over and above the effects of depressive episode and emotionally unstable personality disorder.

Coping

Although coping with stress is a universal process, there are cultural differences in coping patterns. While research on Asian American coping strategies in the workplace remains sparse, it is reasonable to assume any differences in ethnic coping strategies also manifests in the workplace. Chang (2001) compared coping strategies between Asian American and Caucasian college students using the Coping Strategies Inventory (CSI). The findings showed that the main difference between the two groups was with the use of problem avoidance and social withdrawal coping strategies; on average, Asian American students utilized both of these coping strategies more often than their Caucasian counterparts. Lam and Zane (2004) examined coping differences between Asian Americans and Caucasian Americans at a Southern California University, revealing that Asian Americans were more oriented toward secondary control (i.e., adjusting individual's feelings to the circumstances) while Caucasian Americans were more oriented toward primary control (i.e., attempt to changing the stressful circumstances). This ethnic difference in coping was found to be mediated by cultural variations in self-construal; independent self-construal fully accounted for the difference in primary control, while interdependent self-construal partially accounted for the difference in secondary control. Bjorck, Cuthbertson, Thurman, and Lee (2001) found that Korean and Filipino Americans scored higher than Caucasian Americans on passive coping behaviors, such as accepting responsibility, religious coping, distancing, and escape-avoidance scales. The researchers surmised that the Eastern values of accepting fate and submitting

to authority has made Koreans more ready to appraise events as losses that they must accept. In contrast, the Western values of individualism and self-assertion encouraged Caucasian participants to protest or attempt to change a situation in order to eliminate the necessity for loss appraisal.

Taken together, the results of these studies are consistent with the notion that those from collectivistic cultures have different coping tendencies than those from individualistic cultures. Yeh, Arora, and Wu (2006) developed a theoretical model of collectivistic coping that is based on East Asian's collectivistic values, and contains seven dimensions: *Family Support* (seeking support from family members); *Respect for Authority Figures* (seeking support from community elders or parents); *Intracultural Coping* (seeking support from those of similar race); *Relational Universality* (seeking support from those with shared experiences); *Forbearance* (withholding the expression of feelings in order to maintain social harmony); *Social Activity* (using social relations as a source of support); and *Fatalism* (accepting that forces outside one's control may dictate the outcome). However, it is important to differentiate between collectivistic coping and social support. Taylor et al. (2004) found that Asian Americans were less likely to utilize social support than European Americans due to their desire to maintain social harmony within the social group, and bringing attention to personal problems may undermine such harmony. As a result, Asian Americans do not necessarily engage in more social coping, as they must strike a balance between taking care of themselves and protecting their relationship with the in-group.

Summary

The Asian population is now the fastest growing racial group in the United States. Immigration is the primary source of this growth, with nearly two-thirds of Asian Americans being foreign born. While aggregated statistics show that Asian Americans as a whole have achieved socioeconomic success, disaggregated data reveal that many continue to struggle with severe socioeconomic hardships that are easily overlooked when we focus on the larger group.

Certain Asian subgroups are often employed in low-wage, blue-collar jobs in which they are commonly exposed to ergonomic hazards (e.g., electronic and apparel manufacturing workers), chemical hazards (e.g., nail salon workers), and safety hazards (e.g., restaurant workers). In addition, Asian American workers experience the highest rates among all racial/ethnic

groups of many psychosocial hazards, including violence and discrimination. These safety issues are often worsened by a lack of awareness of their health and safety rights. Beyond the literature on occupational stress, the general stress literature can also inform us of common sources of stress and strain for this population that can potentially manifest into the workplace, including acculturative stress, PTSD, substance abuse, and suicide. In addition, an appreciation of how cultural differences influence the way Asian Americans cope with stress is important for our understanding of how coping behaviors can manifest in the workplace.

AFRICAN AMERICANS

Overview of the Black/African American Population

Non-Hispanic blacks or African Americans are the second largest racial and ethnic minority group in the United States. While they have been surpassed by Latinos in percentage, they still comprise a sizeable portion of the population. According to 2010 Census findings, 38.9 million people, or 13% of the total U.S. population, identified as black or African American (Rastogi, Johnson, Hoeffel, & Drewery, 2011). Between 2000 and 2010, the growth of the African American population outpaced that of the total population. The total population grew by 9.7% while the black population expanded by 12% within this timeframe (Rastogi et al., 2011).

“Black or African American” refers to “a person having origins in any of the black racial groups of Africa” (U.S. Census Bureau, 2000). A common misconception is that African Americans are a monolithic group, when, in fact, the group is highly diverse not only in terms of age, geographic location (e.g., region, rural or urban) and religion, but also in terms of cultural values, backgrounds, and belief systems. For example, the population encompasses more than 2 million foreign-born persons, and their language and cultural practices enrich the diversity of this population (Rastogi et al., 2011). It is important to note that although these persons are labeled “black or African American,” many may not identify with the background and cultural experiences of U.S. born black people. For instance, Haitian, Brazilian, or Nigerian immigrants may be categorized as black or African American, but they may have been shaped by different histories, perspectives, and world views than their U.S. born counterparts (Takyi & Konadu-Agyemang, 2006).

A growing number of Americans who identify themselves as black in combination with one or more races further heighten the complexity of the

African American population. In the 2010 Census, 3.1 million people, or 1.0%, identified themselves as such (Rastogi et al., 2011). While these multiracial Americans with black ancestry may have the same or similar social and cultural experiences with Americans who identify as black alone depending on a various factors, there may have been dramatic differences in these experiences.

Labor Force Participation

African Americans/blacks comprised 12% of the United States labor force in 2010 (BLS, 2011). Overall, 18 million black Americans were employed or looking for work, representing 62.2% of all black people (BLS, 2011). In 2010, about 50% of blacks aged 16 and older had a job and 17.5% of those employed worked part-time (BLS, 2010). Only 3.8% reported being self-employed – making them about half as likely to be self-employed as whites at 7.4% (BLS, 2010).

African American workers appear to be overrepresented in certain sectors. They are more likely to be employed in the public sector than their white counterparts, for instance. In 2010, nearly 20% of employed blacks worked for the government compared to 14.6% of whites (BLS, 2011). black workers have also been overrepresented in the education, health services, and the transportation and utilities sectors (BLS, 2010).

African Americans are also concentrated in certain jobs. As a group, they are less likely to be employed in management, professional, and related occupations than other racial and ethnic groups. For example, 50% of Asian men and 35% of white men worked in management, professional, and related occupations compared with 24% of black men (BLS, 2010). Black men have also been twice as likely as men in other racial and ethnic groups to work in production, transportation, and material moving occupations (Gabor, Holder, & Carpio, 2001). Further, although African Americans make up only 12% of all employed workers as noted above, they account for about one-quarter or more of those in several specific occupations, including nursing aides at 34%, security guards at 29%, and taxi drivers and bus drivers at about 25% each (BLS, 2010).

Occupational Injuries and Illnesses

The extent to which African Americans have higher rates of work-related mortality and morbidity than non-Hispanic white workers is unclear largely

because the studies investigating this topic have yielded inconsistent findings over the years. Some studies have found comparable rates of occupational injuries between black and white workers (e.g., [Chen & Layne, 1999](#)). Other research has identified disparities. For example, an analysis of occupational injury and absence from work among African American, Latino, and non-Hispanic white workers conducted by [Strong and Zimmerman \(2005\)](#) found that African Americans exhibited the highest rate of lost work time injuries and illnesses among both men and women. Injured black male workers lost 66% more workdays than non-Hispanic whites (approximately 19 more days at the sample means). Injured black female workers lost 110% more workdays than non-Hispanic whites (approximately 26 more days at the sample mean).

Fatal work injuries among black workers appear to be relatively low, having been on a decline since 2007 (BLS, 2011). The number of fatal work injuries rose 2% among white workers in 2010, but were lower for African Americans. Nine percent fewer fatalities among black/African American workers were recorded in 2010 after a decline of 21% in 2009 (BLS, 2011). With the lower count in 2010, fatal work injuries among black/African American workers have decreased by more than a third since 2007 (BLS, 2011). While this appears to be an encouraging trend, it is important to note that some of this decline in fatal work injuries may be attributed to a higher unemployment rate in 2010 among blacks compared to 2007 (BLS, 2011).

Overall Health Status

Although the extent to which African Americans shoulder a disproportionate share of work-related illnesses, injuries, disability, and death is still in question, striking disparities in overall health status have been clearly documented. National Center for Health Statistics ([NCHS, 2007](#)) data suggests that blacks/African Americans have the highest all-cause age-adjusted death rate at an alarming 1016.5 per 100,000 persons. This is notably higher than the age-adjusted death rate for all races combined, and the death rates of each of the other racial and ethnic groups. The average life expectancy of African Americans remains about 6 years shorter than that of non-Hispanic whites ([NCHS, 2007](#)). Also, even when the incidence of a particular disease is lower in African Americans as is the case with breast cancer, mortality is often higher (American Cancer Society, 2007).

The prevalence of hypertension in the United States in people 18 years or older is approximately 29%, affecting more than 58 million individuals.

African Americans are disproportionately represented in this number. According to Centers for Disease Control and Prevention (CDC, 2005), the age-adjusted prevalence of hypertension is 40.5% among blacks compared to 27.4% among non-Hispanic whites. Disparities in hypertension begin after puberty and persist into adulthood (Gillum, 1996;). However, the greatest racial difference is seen among those aged 40 through 59 years. Fifty percent of blacks in this age group are hypertensive compared with 30% of whites (Jamerson, 2004). By age 65, as many as 75% of African American women are hypertensive, compared with 50% of white women in the same age group (Cozier, Palmer, Horton, & Fredman, 2006). Also, African Americans have earlier onset of hypertension, higher prevalence, and greater severity of hypertension with double the risk of heart failure and coronary heart disease (Gillum, 1996; Jamerson, 2004).

Hypertension is a risk factor for stroke (Morenoff et al., 2007). The prevalence rate for stroke for African American males and females is about 4.0% for both groups compared with 2.3% and 3.2% for non-Hispanic white males and females (Bransford & Ofili, 2000). There are racial differences in the subtypes of stroke, and these racial disparities in subtype are greatest at younger ages. Young African Americans have two to threefold greater risk of ischemic stroke than their white counterparts and are more likely to die as a result of stroke (National Stroke Association, 2012).

In the United States, cardiovascular disease (CVD) and coronary heart disease (CHD) are leading causes of death for both men and women from all racial and ethnic backgrounds. The CVD prevalence rates for African American males and females are 45.9% compared to 37.8% and 33.3% for white males and females respectively (NCHS, 2007). Data indicate that the African American population experiences a higher disability rate from CVD than other groups and also experience the highest death rates from CVD of any racial or ethnic group across industrialized countries (American Heart Association, 2003). Also, African Americans have the highest overall as well as out-of-hospital CHD death rates of any U.S. ethnic group, particularly at younger ages (Clark et al., 2001). Black Americans have earlier onsets and higher risks of first myocardial infarction or heart attack at all ages than their white counterparts (Clark et al., 2006).

The Role of Stress in Health Disparities

Over the last decade or so, researchers have also begun to include stress as a potential contributor to these and other racial and ethnic health disparities

(American Heart Association, 2003; Williams, 1999). Several researchers have proposed that racial and ethnic disparities are fostered in part by differential exposure and vulnerability to environmental, sociocultural, and psychosocial stressors. Exposure to these stressors is believed to contribute to vulnerabilities to illness and injury by generating acute and chronic physiological changes in body systems, by engendering psychological and physical distress, and by fostering a variety of maladaptive behaviors which contribute to poor health (e.g., substance abuse, inactivity). These processes ultimately weaken the ability to defend against illness and injury (Rios, Poje, & Detels, 1993; U.S. EPA, 2003).

It appears that blacks/African Americans may generally be exposed to more chronic and insidious stressors and, consequently, report more distress, disease, and dysfunction than whites (Williams, 2000). In past investigations, blacks and other racial and ethnic minorities often report a greater number of negative life events, report greater and more frequent exposure to generic life stressors (i.e., stressors that are a usual part of modern life – financial, occupational, relationship, parental, etc.), perceive these events as more stressful, and report greater psychological distress from these stressful life experiences than their white counterparts (Myers & Hwang, 2004). Race and ethnicity also contributes to greater stress burden through exposure to additional stressors that are related to being a member of an ethnic minority group (Myers & Hwang, 2004; Williams, 2000). Racial and ethnic discrimination is one such stressor.

Occupational Stress

It may be the case that African Americans experience greater levels of occupational stress which in turn may make a significant contribution to their susceptibility to stress-related problems such as hypertension, stroke, CVD, and CHD. The NIOSH defines occupational stress as “the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources or needs of the worker” (NIOSH, 1999). Occupational stress is prevalent in American life. About one-fourth of U.S. workers view their jobs as the top stressor in their lives (NIOSH, 1999). Roughly 26–52% of American workers report moderate to high levels of stress at work (e.g., McCalister, Dolbier, Webster, Mallon, & Steinhardt, 2006), and three-fourths of employees believe that they are incurring more on-the-job stress than workers incurred a generation ago. Thirty-six percent of American workers describe their jobs as “often”

or “always stressful” (General Social Survey 1972–2000 Cumulative Codebook, 2002) and symptoms of occupational stress are believed to cost U.S. industry a staggering \$300 billion a year in absenteeism, diminished productivity, employee turnover, and health care costs (e.g., Levi, 1996).

Occupational stress is a widely recognized health and safety hazard (Jordan et al., 2003; NIOSH, 1999). Relationships have been found between excessive levels of work-related stress and high blood pressure and cholesterol levels (Goodspeed & DeLucia, 1990) and CVD (Herd, 1986), infectious and autoimmune diseases (e.g., Brunner, 2000), anxiety and depression (e.g., Landsbergis, Schnall, Deitz, Friedman, & Pickering, 1992), as well as accidents and injuries (e.g., Schnall, Belkic, & Pickering, 2000).

There are many potential sources of occupational stress. Job characteristics such as job demands (workload), decision latitude (job control), social support from supervisor or coworkers, and intrinsic and extrinsic rewards have been linked to stress and have well-documented effects on CVD (Guimont et al., 2006; Kivimaki et al., 2006), mental health (Bildt & Michelsen, 2002; Griffin, Hogan, Lambert, Tucker-Gail, & Baker, 2010; Michie & Williams, 2003; Pikhart et al., 2004; Rugulies, Aust, & Syme, 2004; Stansfeld, 2002), and musculoskeletal health (Hartvigsen, Lings, Leboeuf-Yde, & Bakketeig, 2004; Hoogendoorn et al., 2002). Additionally, workplace features such as racial or gender segregation and discrimination (Bond et al., 2008) can engender occupational stress as can organizational policies and practices concerning staffing, downsizing, and other institutional changes (Clarke, Rockett, & Sloane, 2002; Lipscomb, Loomis, McDonald, Argue, & Wing, 2006).

Stressors

Some of the stressful job and workplace characteristics to which African Americans per se may be overexposed in the workplace include but are not limited to are: job insecurity, high job demands, low job control, and racial and ethnic discrimination.

Job Insecurity

Job insecurity which has been defined by investigators as “the fear of unemployment” is believed to be harmful to physical and mental health (De Witte, 1999; Dekker & Schaufeli, 1995; Ferrie, Shipley, Marmot, Stansfeld, & Davey Smith, 1998). Studies have found effects on overall

self-rated health or morbidity (Ferrie, Shipley, Marmot, Stansfeld, & Davey Smith, 1995; Pelfrene et al., 2003), physical symptoms (Ferrie et al., 1998; Heaney, Israel, & House, 1994), and cardiovascular risk factors, including an association with high blood pressure (Arnetz, Brenner, Levi, & Hjelm, 1991; Ferrie et al., 2001; Ferrie, Shipley, Stansfeld, & Marmot, 2002; Kasl & Cobb, 1970; Siegrist, Matschinger, Cremer, & Seidel, 1988). Threat of job loss has also been associated with increases in self-reported morbidity, serum cholesterol, depression, and anxiety (Ferrie et al., 1998; Kivimaki, Vahtera, Pentti, & Ferrie, 2000). Finally, research has found that employees who report high perceptions of job insecurity exhibit decreased safety motivation and compliance, which in turn are related to higher levels of workplace injuries and accidents (Probst & Brubaker, 2001).

African Americans appear to be at increased risk for experiencing job insecurity compared to other groups. The most striking indicator of this potential overexposure is their vulnerability to job loss, which is reflected in unemployment rates. Historically, higher unemployment rates for blacks have occurred across all major age and gender groups. They have also endured persistently higher unemployment rates than the other major racial and ethnic groups (BLS, 2011).

The recent recession and recovery period illustrates this. Unemployment rates remained especially high for African Americans in 2009, reaching 14.8% (BLS, 2011). These figures were higher than the unemployment rates for whites, Asians, and Latinos at 8.5%, 7.3%, and 12.1% respectively (BLS, 2011). In 2010, the average unemployment rate for blacks was 16%, compared to 8.7% for whites (BLS, 2011). Further, 48.4% of all unemployed blacks were unemployed 27 weeks or longer in 2010, compared to 41.9% of unemployed whites (BLS, 2011). The unemployment rate for African Americans remained high in 2011. In mid-2011, the unemployment rate for them was 16.2%, which was only 0.3 percentage points down from its peak of 16.5% in 2010 (BLS, 2011).

Like unemployment rates, lower job tenure and disproportionate employment under temporary work arrangements among African Americans may also be indicators of their overexposure to job insecurity. Pronounced racial and ethnic differences in job tenure have been found. For example, Strong and Zimmerman (2005) found from their analysis that African American men were more likely than other men to report having worked less than 6 months at their current job, they were less likely to report having worked more than 10 years. Black females constitute 21% of the workforce provided by temporary help firms – almost twice their representation in the traditional workforce (DiNatale, 2001). Unstable work arrangements have

been associated with poor health, high levels of stress-related tension, and exhaustion (Vosko, Zukewich, & Cranford, 2003).

High Job Demands and Low Job Control

In Karasek's demand-control model of occupational stress, stress is conceptualized as a both function of how demanding a person's job is and how much control the person is able to exert over their own responsibilities. The model implies that the greatest risk to physical and mental health from stress occurs to workers facing high psychological workload demands or pressures combined with low control in meeting those demands. Workers exposed to these job characteristics may experience job strain. Karasek and Theorell (1990) propose that workers under job strain are at greater risk for CVD (Johnson, Hall, & Theorell, 1989). Over the last decade, numerous studies on job strain, heart disease, and heart disease risk factors (e.g., hypertension) have furnished strong evidence that job strain is a risk factor for heart disease (Schnall, Landsbergis, & Baker, 1994).

As described above, African Americans are overrepresented in blue-collar occupations such as service, production, transportation and material moving occupations, and maintenance occupations. These occupations tend to be characterized by high job demands (i.e., high workload) and low job control, that is, they tend to be high strain occupations.

In a ranking of jobs based on the blood pressures of incumbents, Leigh (1991), for example, determined that service and transportation positions were in the top 40% in terms of having an incumbent with high blood pressure while a disproportionately low number of professional and managerial incumbents had higher than average blood pressure. Leigh explained that while managers and professionals may have high levels of psychological demands, they also have considerable decision latitude, which protects them from developing high blood pressure while service and transportation workers are not afforded this protection.

Racial/Ethnic Discrimination

Racial/ethnic discrimination in the workplace is another source of stress to which African Americans appear to be overexposed relative to other groups.

Studies suggest that African Americans experience workplace discrimination at disproportionate rates. For example, a study found that, among the United for Health cohort of 1,202 predominantly black, Latino, and white women and men low-income union workers in the Greater Boston area, high exposure to racial discrimination was reported by 37% of the workers

of color, compared with 10% of the white workers, with black workers reporting the greatest exposure at 44% (Krieger et al., 2006).

Evidence has accumulated that establishes stress engendered by racial discrimination at work is injurious to health. Empirical studies have found associations between workplace discrimination and high blood pressure (Krieger, 1999; Krieger & Sidney, 1996), mental health problems (Gee 2002; Kessler, Mickelson, & Williams, 1999), and alcohol consumption (Yen & Syme, 1999) among a host of other problems.

Summary

The black/African American population is now the second largest minority group in the United States. Striking disparities in their overall health status have been clearly documented. They have higher all-cause age-adjusted death rates, lower life expectancy, and greater rates of stress-related illness (e.g., hypertension, CVD). Job stress may play a significant role in this state of affairs. As a group, African Americans are less likely to be employed in management, professional, and related occupations than other racial and ethnic groups and more likely to be employed in blue-collar occupations characterized by high job demands (i.e., high workload) and low job control – occupations that produce job strain. In addition, it appears that they may be overexposed to job insecurity (as evidenced by high unemployment rates and low job tenure) and racial/ethnic discrimination.

RECOMMENDATIONS AND FUTURE DIRECTIONS

Latinos

Research Needs

In his recent summation of the literature, Schenker (2010b) identified a number of themes that have been touched upon in this chapter: immigrant workers are injured or killed at higher rates, immigrant workers tend to work in the least desirable and most dangerous jobs, immigrant workers have access to fewer resources such as health care, and that given the magnitude of the problem, very little research had been done on it. Schenker suggested that the research needs of this population could only be addressed through a multidisciplinary approach using new paradigms.

One clear research need is for greater attention to the occupational experiences of Latina immigrants. The bulk of the occupational safety and health research on Latino immigrants has focused on occupations and industries that are overwhelmingly male. However, the [Pew Hispanic Center \(2009\)](#) estimates that 42.1% of Latin American immigrants are females age 18 or older. An exploratory study by [Eggerth et al. \(2012\)](#) suggests that in addition to the expected workplace hazards, Latina suffer from a number of gender-specific concerns including sexual harassment, pregnancy, and childcare. It has long been recognized in the occupational safety and health literature that in many industries, tools, machinery, and personal protective equipment are manufactured in sizes appropriate for men, making it physically difficult, if not dangerous, for most women to use ([NIOSH, 1999](#); [Ontario Women's Directorate and the Industrial Accident Prevention Association, 2006](#)). Given that most Latin American women are physically smaller than the average American female, it seems logical to expect that these problems will be exacerbated even more for Latinas having to use poorly sized equipment. It should also be noted, given the smaller stature of many Latin American men relative to American men, they are also likely to be adversely impacted by poorly sized equipment.

Considering the earlier discussion of lower prevalence of psychiatric disorders among Latino immigrants to the United States when compared to the United States it may seem odd to suggest that more attention needs to be paid to the assessment of stress among Latino immigrants. However, given that psychiatric disorders are associated with increasing time spent living in the United States ([Vega et al., 2004](#)), it would seem that the effects of acculturative stress are corrosive and lasting. Supporting this interpretation is the work of [Hovey and King \(1997\)](#) finding higher levels of suicide among Mexican immigrants to the United States than among the general population of Mexico. There is evidence suggesting that there may be significant cultural differences in the understanding and expression of mental illness between Latin America and the United States ([Angel & Guarnaccia, 1989](#)). These cultural differences may be further confounded by inadequate translation of existing English-language instruments into Spanish ([Canino, Lewis-Fernandez, & Bravo, 1997](#); [Cervantes, Padilla, & Salgado de Snyder, 1991](#); [Cortes et al., 2007](#)). [Viruell-Fuentes, Morenoff, Williams, and House \(2011\)](#) report that even subtle difference in understanding of scale anchors can be enough to skew responses to self-reported health surveys. Taken together with the curious inconsistencies between European and American immigrant mental health research findings, it is clear that many questions remain regarding the validity and interpretation

of surveys assessing stress and other mental health concerns with Latino immigrants.

Interventions

In 2002, the National Research Council of the National Academy of Sciences hosted a workshop to identify the best ways to address the occupational safety and health communication and training needs for the growing Spanish-speaking population in the United States. Four intervention priorities were identified for occupational safety and health communications and training (NRC, 2003). These priorities were:

1. workers and employers who speak and write little or no English;
2. recent immigrants as opposed to established populations;
3. workers with low literacy levels in both English and Spanish; and
4. workers in high-risk occupations and industry sectors.

The workshop participants also emphasized the importance of developing culturally tailored interventions that had been developed from inception for a Spanish-speaking audience as opposed to the relatively common practice of translating already developed English-language materials into Spanish (Brown, 2003; NCR, 2003).

It has been suggested by a number of authors that peer-education approaches, more commonly referred to as “training-the-trainer” would be a useful model to use with Hispanic immigrant workers (O’Connor et al., 2000; NIOSH, 2004). This approach involves training a worker to serve as an onsite peer occupational safety and health expert. Not only would this help to overcome significant training barriers involving language and culture, it would also capitalize upon reports in the occupational safety and health literature that the most common source of occupational safety and health information for Hispanic immigrant workers, particularly those not in unions, is other workers (CPWR, 2004; O’Connor et al., 2000; Walter et al., 2002).

Asian Americans

Policy and Research Needs

To reduce the occupational health and safety issues that Asian Americans face, it is critical that we promote healthy jobs by implementing workforce improvement strategies that also address the immigration status and linguistic competency of Asian Americans. Integration strategies must

incorporate accurate and reliable data about Asian American workers, and collaboration of government with community organizations and social service agencies.

Lee (2009) provided recommendations to help achieve this goal. Several involve the strengthening of OSHA: the OSHA's General Duty Clause should be interpreted to include hazards of nontraditional occupations; OSHA should provide employers and workers with consultation and hazard communication training, using culturally appropriate methods and materials; and more bilingual and bicultural OSHA inspectors must be hired to protect workers in small businesses and nontraditional settings. Other recommendations include: enacting a federal ergonomic standard that does not require a diagnosis of an injury for a worker to trigger implementation of the standard; educating policymakers and encouraging them to develop policies that protect workers; protecting whistleblowers from discrimination; developing media public health campaigns targeted at the Asian American community in order to educate about and advocate for workplace health and safety, and workers' compensation. Lee (2009) also suggests that we should conduct research to improve data on the Asian American experience by developing new surveillance tools that can help us gather workplace and occupational exposure data for Asian Americans, and by using qualitative research methods to investigate the health concerns of Asian American workers. Finally, Lee (2009) suggests that we need to promote local community and workplace interventions. This includes educating workers on their safety rights through community organizations and clinics, equipping clinics to be able to address occupational injuries, and developing awareness projects to promote workplace health and safety among employers and workers.

The Model Minority myth continues to be a source of many unintentional and insidious consequences. The myth attributes positive characteristics to the Asian American population. Unfortunately, this poses a Catch-22 for Asian Americans; the stereotypes that can create a positive impression about Asian Americans also results in the thinking that Asian Americans do not have any health or socioeconomic problems (*Asian Americans and Hepatitis B*, 2005). This is harmful to the Asian American community because it has contributed to the lack of health data for this population. Indeed, although we are slowly improving the data collection on the health and health barriers of population, current data remains very limited. In some cases, Asian Americans are included as an aggregate or in the category of "other." In other cases, data is unavailable, such as in the Healthy People 2010 Objectives for the Nation, in which more than half of the leading

health indicator data sets for Asian Americans are missing (Akhter et al., 2004). It is important that we fill this gap because data is what gets institutions like the NIH/NIOSH to give money to do further studies or finance programs. In addition, it is vital that educational programs in medical schools and health professions teach about the complex health disparities that Asian Americans face.

Instead of focusing on eliminating disparities in our populations, we can also correct health issues by focusing on achieving health *parity* for all communities. Parity seeks to eliminate disparities by focusing on the process of health services provision and health promotion (Akhter et al., 2004). Achieving parity also means increasing inclusivity by encouraging members of heterogeneous communities to equally participate in the critical decision-making of important activities, programs, and policies.

African Americans

Research Needs

Given the ongoing lack of clarity about whether African Americans shoulder a disproportionate share of occupational injuries, illnesses, and death, additional research is needed to investigate this question. A number of methodological issues limit the inferences that can be drawn from previous studies that have examined the relationships between race/ethnicity and risk of occupational illness and injury. For example, the use of multiple data sources has prevented the ability of researchers to link demographic, occupational, and injury data at the individual level, which in turn, has limited the conclusions that could be drawn from analyses (Strong & Zimmerman, 2005). Also, some previous studies exploring occupational health disparities obtained data from state workers' compensation claims systems, emergency department hospital records, and employer records. These data depend on injured workers' having sought medical care or filed for workers' compensation. Given that occupational injuries and illnesses tend to be underreported, data drawn from these sources may not be fully representative of all injured workers (Strong & Zimmerman, 2005).

In addition to occupational health disparities research that have stronger designs, studies are also needed to begin to determine the proportion of the disparities African American experience in stress-related illnesses like hypertension, CVD, and CHD that may be attributable to occupational stress. Only a limited number of studies to date have examined occupational stress as a potential contributor to these disparities. Specifically, the body of

research needs to be expanded by: (1) empirically establishing whether it truly is the case that African Americans carry a greater occupational stress burden than other groups, (2) characterizing the workplace stressors to which they may be overexposed, and (3) identifying the workplace, personal, social, or other factors that buffer African Americans from the negative impact of these stressors. Conducting these types of studies may first require the development of measures and methods that will help assess exposure to a fuller range of occupational stressors that have historically been evaluated in occupational safety and health research. The measures should be designed to evaluate not only the generic stressors that have typically been assessed in occupational stress studies such as job demands, job control, and job insecurity but should include multi-item measures to evaluate racial and ethnic discrimination and other potential race- and ethnicity-related stressors that by and large have been neglected in occupational health research.

Interventions

Given that they do shoulder a disproportionate burden of stress-related illness, there may also be a need for interventions that address occupational stress among African Americans. As a first step, employers in the sectors/industries where African Americans are disproportionately employed, including the public, transportation, education, and health care sectors, may be targeted. Employers should be encouraged to design and provide culturally competent health promotion and health protection programs that address work-related stress and to redesign jobs and their workplaces in ways that reduce workforce exposure to occupational stressors. Other interventions might entail working with employers to ensure that their current policies and practices are nondiscriminatory and to adopt practices and policies that may be better fit with a diverse workforce (e.g., policies and practices that increase flexibility).

Other occupational stress interventions may be developed and delivered to African Americans outside of the workplace. Interventions should be asset based, that is, intervention development should include an upfront evaluation of what individuals and their communities possess in terms of strengths and resources.

While blacks/African Americans face a number of health challenges, there are numerous strengths within the black/African American community that can be leveraged to address them (Hill, 2003). African American families have developed natural supports, resources, and institutions to buffer these challenges and cope with multiple stressors (e.g., Bagley & Carroll, 1998).

These strengths include high achievement orientation, strong kinship (i.e., strong relationships, with immediate and extended family and friends), social participation and voluntarism, and strong work orientation (Walker, 2007). Further, religiosity may be an important coping resource for black Americans (e.g., Briscoe, 2009).

In addition, social scientists, health care providers, mental health professionals should consider partnering with churches and other community-based organizations that serve African American communities to address occupational safety and health. By working collaboratively with these organizations, social scientists and health professionals may be able to reach a significant proportion of the black population while developing and delivering culturally competent interventions.

In summary, helping African Americans overcome occupational safety and health challenges like occupational stress requires working with the organizations that employ them to develop culturally competent strategies to reduce harmful exposures, leveraging the unique strengths of the African American community to develop interventions, and utilizing its key resources (e.g., community-based organizations) to effectively promote and protect the health of this population.

CONCLUSION

We have proposed that the occupational health disparities approach provides a valuable lens through which we may study and understand occupational stress and well-being among racial and ethnic minority groups. In light of the objective of the OHD program within the NIOSH to improve “these tools and tailoring them to the unique characteristics of vulnerable and hard to reach populations to allow occupational health researchers and practitioners to better identify health disparities and work toward their elimination,” we have provided a state-of-the-art review of OHD literature for Latino, Asian Americans, and African Americans.

In moving toward addressing the issues raised in this chapter, it will be very important to recognize the great diversity of the Latino immigrant population in terms of education, culture, and occupation. Although agricultural workers and day laborers are the most visible, they are not the most representative members of this community. The changing settlement patterns of Latino immigration must also be considered when designing research and/or interventions. Social, economic, and cultural conditions may be so different in new settlement areas that findings from studies

conducted in traditional settlement areas may not translate well – if at all. Finally, Latina workers have needs, some of which are gender specific, that have been ignored in the literature for far too long.

For Asian Americans, some of the unique occupational health problems experienced by them include challenges in serving as restaurant and garment workers (e.g., chemical hazards). They also encountered problems related to the effects of the Model Minority myth in the workplace. Relatively little research has been conducted on the effects of stress associated with “positive” stereotype in the stereotype threat paradigm. At the same time, for Asian Americans, these culture-specific stressors also interact with the larger set of stressors experienced by most racial and ethnic minority groups such as racism, discrimination, and acculturative stress. The relative dearth of scientific studies of health disparities among Asian Americans also applies to the area of occupational health disparities.

Addressing the needs of African American should begin with recognition of the striking disparities in chronic and other illnesses faced by this population and appreciation of the array of occupational challenges that adversely impact this population. Additional research is needed to identify the job characteristics and working conditions that create additional stress burden for African Americans and to determine to what extent these stressors undermine their overall health and safety status. Intervention and prevention approaches should draw on the strengths of this population, including key community resources.

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