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EMBODYING INEQUALITY: THREE PAPERS ON THE ROLE OF GENDER AND DISCRIMINATION IN THE LIVES OF WOMEN

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EMBODYING INEQUALITY: THREE PAPERS ON THE ROLE OF GENDER AND DISCRIMINATION IN THE LIVES OF WOMEN

DISSERTATION

A dissertation submitted in partial fulfillment of the
requirements for the degree of Doctor of Philosophy in the
College of Social Work at the University of Kentucky

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ABSTRACT

EMBODYING INEQUALITY: THREE PAPERS ON THE ROLE OF GENDER AND DISCRIMINATION IN THE LIVES OF WOMEN

Women experience different forms of discrimination throughout their lives such as unfair treatment in interpersonal interactions in the public spheres and in the private sphere, as prescribed by societal gender roles, women can also experience inequality and discrimination as a disproportionate share of household work and caregiving, limited participation in decision making, unequal access and share of financial resources and leisure, and as well as in cases, of emotional, and physical, or sexual abuse. Limited research explored the potential joint effect of these forms of discrimination. The questions explored in this dissertation were: (1) How does gendered intra-household inequality, experienced as a constraint to women's agency, interact with post-migration factors like interpersonal discrimination and how does the combination of factors affect the mental health of immigrant women? (2) how does gendered intra-household inequality and discrimination interact to affect mental health among women and men in the U.S? And lastly, how do major stressful and traumatic events and discrimination interact to affect mental health among women and men in the U.S? In the first paper, I analysed data from the National Latino and Asian American Study and I found that first- and second-generation immigrant and refugee women experience intra-household inequality such as having no say in final decisions, experiencing excessive demands from their spouse and moderate or severe violence and that both discrimination and intrahousehold inequality made a separate and a significant contribution to increasing women's risk for meeting criteria for depression and PTSD. The second paper had two small substudies. In the first I analyzed data from the 2011-2014 MIDUS Refresher study, and I examined the relationship between perceived everyday discrimination, intrahousehold inequality, and depression and anxiety among women and men. I found that everyday discrimination was associated with depression and perceived role strain with both health outcomes. In the second substudy I analyzed data from the 2012-2016 MIDUS Refresher Biomarker to explore a potential pathway between role strain and depression and anxiety symptoms and whether these processes were contingent upon the perception of discrimination in social interactions. I found that perceived stress mediated the relationship between role strain

and depression and anxiety and that discrimination moderated that relationship such that in the presence of perceived discrimination in interpersonal interactions, intrahousehold inequality was associated with more psychological distress and more severe symptoms of depression and anxiety. In the last paper, I used data from the 2012-2016 MIDUS Refresher Biomarker and I examined the association between major stressful and traumatic events, perceived discrimination and perceived multiple reasons for discrimination and anxiety and depression among women and men. I first examined a potential pathway between adverse experiences and depression and anxiety symptoms, and I found that perceived stress mediates these relationships. In the second part, I tested the moderating role of discrimination and of perceived multiple forms of discrimination and found that individuals who reported a greater number of major stressful events reported higher levels of stress if they perceive higher levels of discrimination and, further, that higher levels of stress predicted higher levels of depressive symptoms if they perceive higher levels of discrimination. Perception of multiple forms of discrimination (two forms or there or more) was also associated with higher levels of perceived stress. The concluding chapter presents the main findings of these studies and recommendations for social work practice and future research.

KEYWORDS: gender, discrimination, intra-household inequality, trauma, intersectionality, health inequalities

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April 23, 2020

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Chapter 1

Purpose of the study

The purpose of this series of dissertation papers is to advance knowledge regarding the role of gender intra- household inequality and discrimination in the health of women. The first paper focuses on Latino and Asian immigrant women's health subsequent to arrival in the United States, and, in particular, to understand how gender impacts health post migration. The question that drives this first paper *is what post-migration conditions within family life and relative to female-male relationship are most associated with poor mental health among immigrant women?* If the end-place of migration, the United States, has a social fabric in which greater equality for women exists (in the Rawlsian, constitutional sense), but in which intra-household inequality and discrimination based on color and ethnicity persists, does this equality transfer to immigrant women and increase better health outcomes? In one sense, the question is whether ostensive liberty can actually translate into a higher quality of life, including better physical and mental health in the context of intra-household and discrimination factors? The second and third papers examine the role of perceived discrimination and of the gendered intra-household inequality and of major stressful and traumatic events on the mental health of women and men.

The larger questions explored in this dissertation are: (1) How does gendered intra-household inequality, experienced as a constraint to women's agency, interact with post-migration factors like interpersonal discrimination and how does the combination of factors affect the mental health of immigrant women? (2) how does gendered intra-household

inequality and discrimination interact to affect mental health among women and men in the U.S? And lastly, how do major stressful and traumatic events and discrimination interact to affect mental health among women and men in the U.S?

This study examines these questions in three related but separate papers in which each examines a different aspect of inequality/equality and its influence on health. This introductory chapter will present the journey of immigrant women, how gender travels across borders and the introduction will also place gender inequality and intra-household inequality in the global context. The three empirical studies are:

Chapter 2 - paper 1 "A long journey of inequality across borders: understanding the role of gender intra-household gender inequality and discrimination on the mental health of immigrant women" uses data from the National Latino and Asian American Study (NLAAS) (Alegria et al., 2004), a nationally representative community survey of Latino and Asian households. The paper focuses on the association between intra-household inequality, discrimination and depression and PTSD among immigrant women.

Chapter 3 - paper 2 "Perceived discrimination and intra-household inequality among U.S women" uses data from the 2011-2014, MIDUS Refresher and the 2012-2016 MIDUS Refresher Biomarker (Ryff et al., 2017) study, a national probability sample of U.S adults and focuses on the association between gender intra-household inequality and discrimination and depression and anxiety, comparing women and men.

Chapter 4 - paper 3 **"**The role of perceived stress and discrimination in the association between major stressful events and depression and anxiety: A moderated mediation model." uses data from the 2012-2016 MIDUS Refresher Biomarker (Ryff et

al., 2017) study and focuses on the association between major stressful and traumatic events, perceived discrimination and anxiety and depression among women and men.

Chapter 5, the concluding chapter, presents the main findings of these studies and recommendations for social work practice and future research.

Background of the study

Despite increases in global life expectancy in the last decades, narrowing gaps between world regions (WHO, 2016) and a significant decrease in communicable diseases (WHO 2004, 2011, 2015), women are less healthy than men despite their longer life expectancy (Luchenski, Quesnel-Vallee & Lynch, 2008; Newman & Brach, 2001; Prus, 2011; Salinas & Peek, 2008; UN Women, 2015; WHO 2009, 2016). The gender health disparity, also called the gender health paradox, is largely a consequence of how gender norms and inequality interact in virtually every society (Jayachandran, 2015; Kishor, 2005; Krieger, 2003; Marmot & CSDH, 2007; Robeyns, 2003; Sen & Ostlin, 2008, WHO, 2009) including in the developed industrialized countries like the United States (Fryback et a., 2007; Jun et al., 2004; Newman, & Brach, 2001; Prus, 2011), Canada (Luchenski, Quesnel-Vallee & Lynch, 2008; Spitzer, 2005) and European countries (Bambra et al., 2008; Cooper, 2002; Rueda, Artazcoz & Navarro, 2008). International comparison studies that used pooled data from national level surveys from the 2002-2004 World Health Survey collected by the World Health Organization show that the status of women in society translates into a health disadvantage across the world (Freeman et al., 2013; Hosseinpoor et al., 2012b; Hosseinpoor et al., 2016; Mitra & Sambamoorthi, 2014; Witvliet et al., 2014). Data from the analysis of 57 countries showed the presence of a

health gradient based on education, income and wealth (Hosseinpoor et al., 2012a, c) and of gender health disparities in all low, middle and high-income countries where women are assessing their health lower than men in the succeeding older decade (Boerma et al., 2016; Hosseinpoor et al., 2012b).

The major drivers of inequalities in health are social arrangements that create hierarchies in social rank and unequal access to resources and power among those who are accorded lower social status (Berkman, Kawachi & Glymour, 2014). Krieger, 2001a, b, 2011, 2014; Marmot, 2004; Marmot & Bell, 2012; Ramraj, 2016; Marmot & CSDH, 2007). These social gradient effects are associated with impairments that in more just circumstances would be avoidable, unnecessary and unfair/unjust (Blas, Kurup & World Health Organization, 2010; Farrer et al., 2015; Venkatapuram & Marmot, 2009; CSDH, 2008).

One important factor that contributes to inequalities in health is gender. Gender is a social construction anchored in biology but including societal values, norms, behaviors, and practices that are present in virtually all cultures and that define the status of women and their role relations to men (Kishor, 2005; Krieger, 2001, 2003; Marmot & CSDH, 2007; Sen & Östlin 2008). Discriminatory policies, practices and norms create social and structural inequalities that translate into gender inequalities in human capital, economic opportunities, citizenship, and a voice in society and will ultimately be responsible for gender health disparities (Fikree & Pasha, 2004, Jayachandran, 2015; Hosseinpoor, et al, 2012a; Krieger, 2003; Sen 2001b, World Bank, 2012; WHO, 2009). Further, analyses of policies and welfare regimes in industrialized countries indicate that greater gender equality and policies that support women and families are associated with better health for

women and reduced gender health disparities (Borrell et al., 2013; Palencia et al., 2014). For example, women report better health in countries that support policies promoting specifically gender equality like guaranteed reproductive rights, violence protection and parental leave and more equitable share of household caring and reproductive work (Bambra et al., 2009; Borrell et al., 2013). Women report worse health than men in most countries in the world, at all age levels (Boerma et al., 2016) and studies show current trends of young women reporting worsening health as a consequence of gender inequality at work and in private life even in the more gender equal societies like Sweden. According to the 2002-2004 World Health Survey countries, from Latin America and South Asia have the highest gender gap in health in the world (Boerma et al., 2016).

Overall health of Latino and Asian immigrant women

Women have always been part of international migration although the variation in gender composition of immigrant groups and reasons for migration vary over time (Donato et al., 2011; Kandel & Massey, 2002; Pedraza, 1991). Latino and Asians are the two largest groups of immigrants to the U.S (U.S Census, 2010) and also immigrant women arriving from countries from Latin America and South Asia live in countries that have been found to have the highest gender health disparities (Boerma et al., 2016). The United States is the one of most ethnically and culturally diverse nation in the world and the country that hosts the largest number of immigrants (Donato et al., 2011). Currently, immigrants represent 12.9% of the U.S. population, approximately 40 million people and in the last three decades, since 1990, the largest immigrant groups originated from Latin America and Asia respectively from Mexico, India, China, the Philippines and VietNam (United Nations,

2017), both Latino and Asian immigrant groups are expected to double in size by 2060 (U.S. Census Bureau, 2012). Also, studies using pooled data from the 2000-2007 National Health Interview Survey, a nationally representative survey, have shown the presence of gender health disparities even after migration to the United States among Mexican and Middle Eastern immigrants (Read & Reynolds, 2012). The gender health gap is wider among first generation, foreign born immigrants than among US born adults and also immigrant women show a potential less health advantage over natives than immigrant men (Read & Reynolds, 2012).

A large number of empirical studies focus on the health of immigrants once they have become part of the U. S and contribute to the epidemiologic health profile of the general population (Acevedo-Garcia et al., 2012; Reynolds, Chernenko & Read, 2016; Singh & Hiatt, 2006). Immigration can be a stressful life event and can have important consequences for immigrants' health and well-being (Angel & Angel, 1992; Hiott et al., 2006). There is a substantial body of empirical research that demonstrates that circumstances in which people are born and live throughout their lifespans affect their health (Berkman, Kawachi & Glymour, 2014, Furnée & Pfann, 2010; Krieger, 2011; Marmot, 2004; Marmot & Wilkinson, 2005; CSDH, 2008) and their freedom to live the life they value (Sen, 2001a). Immigrants must adapt to numerous changes in their lives and all stages of migration can be stressful and potentially traumatic with important consequences for their physical and mental health (Alemi et al., 2013). Immigrants leave people, places, and their native cultures behind (Berger, & Weiss, 2006; Kirmayer et al., 2011). Some of them escape extreme economic hardship in their home countries or ethnic conflicts and wars, brutal human rights violations or consequences of natural disasters

(International Organization for Migration, 2013; Amnesty International, 2014). Upon arrival, immigrants must also adapt to changes in family structure (Ornelas & Perreira, 2011), to new norms, values, and language in the host country while dealing with loss of original social status, family, and social support (Casado, Hong & Harrington, 2010).

Interestingly, there appears to be a potential health advantage of immigrants over natives, in which more recent immigrants are healthier and also have lower mortality rates than the U.S. born population (Shor, Roelfs, & Vang, 2017; Singh & Hiatt, 2006.). The so-called immigrant health paradox or the epidemiological paradox (Bjornstrom & Kuhl, 2014; Lau et al., 2013; Palloni & Arias, 2004; Weden et al., 2017) refers to immigrants reporting better health on various health outcomes despite their lower socioeconomic status (Alegria et al., 2008; Kennedy et al., 2015; Rubalcava et al., 2008). However, the health of immigrants declines with time spent in the U.S. or in other industrialized nations and in the next generations (Acevedo-Garcia et al., 2010; Newbold, 2009; Reynolds, Chernenko, & Read, 2016; Shor, Roelfs & Vang, 2017; Viruell-Fuentes, 2007).

The health advantage could have limited applicability among undocumented immigrants (Young & Pebley, 2017) and refugees (Fazel, Wheeler & Danesh, 2005). Some of the proposed explanations for the health advantage of immigrants and the subsequent decline are the selective nature of migration where it is believed that in general healthier individuals engage in the migration process (Martinez, Aguayo-Tellez & Rangel-Gonzalez, 2014; Read & Reynolds, 2012), possible data artifacts in reporting (Colen et al., 201; Shor, Roelfs, & Vang, 2017), selective immigration policies favoring healthy and educated immigrants (Koslowski, 2014; Lu, Denier & Wang, 2017) and the "salmon effect" where ill immigrants would return to their home countries (Turra, & Elo, 2008;

Ullmann, Goldman, & Massey, 2011). Other explanations consider the effects on health of all stages of the migration process like poor origin countries, dangerous journeys and low socioeconomic and social integration in the host country (Im & Yang, 2006) and racial or other forms of discrimination (Gee et al., 2006) Finally, a large number of studies have employed theories of acculturation in explaining how, after migration, immigrants adapt to the new environment and culture and learn new health behaviors and change their traditional ones (Abraido-Lanza, Chao & Florez, 2005; Ayala, Baquero, & Klinger, 2008) and also adopt various new risky behaviors post-migration (Fox, Thayer & Wadhwa, 2017; Lopez-Class, Castro & Ramirez, 2011; Salant, & Lauderdale, 2003; Thomson, & Hoffman-Goetz, 2009; Viruell-Fuentes, Miranda & Abdulrahim, 2012).

The health profile of immigrants who experience forced migration is significantly different (DesMeules et al., 2005). Refugees have poorer physical and mental health with various chronic conditions (Fazel, Wheeler & Danesh, 2005; Hermansson, Timpka & Thyberg, 2002; Hollander, 2013), a higher incidence of infectious diseases and mortality from infectious diseases (Bhatta et al., 2014; Gabriel et.al., 2011; Maximova & Krahn, 2010; Norredam et al., 2012; Norredam et al., 2014). Furthermore, their health declines at a faster pace (Newbold, 2009; Jamil et al., 2010) and refugees carry with them significant health consequences from previous exposure to trauma including wars and forced displacement, arbitrary detention, exposure to torture (Amnesty International, 2014; Holtan et al., 2000; Human Rights Watch, 2014), from detention as asylum seekers (Robjant, Hassan & Katona, 2009) and from living in refugee camps (Alemi et al., 2013; Hermansson et al., 2002; Holtan et al., 2002; Jamil et al., 2005; Koch-Weser, 2006; Lie, 2002; Matanov et al., 2013; Mollica et al, 1999; Mollica et al., 2001; Norredam et al., 2009;

Plante et al., 2002). Their struggles associated with having to live in a foreign country persist even decades after resettlement despite increased safety and quality of life in the host country (Chou, 2008; Green et al., 2010; Holtan et al., 2000; Olsen et al., 2007; Piwowarczyk, 2000; Plante et al., 2002; Sulaiman-Hill & Thompson, 2012; Tamblyn et al., 2011). Their poor physical and mental health status also further contributes to barriers to social integration and low socio- economic status in host societies due to lower likelihood of entering the workforce (Williams et al., 2010). Refugees experience separation from their families and the loss of social status (Sulaiman-Hill et al, 2012), and their health continues to be affected by events from their home countries and by what happens to their families they leave behind (Søndergaard, Ekblad, & Theorell,2001).

Gendered inequality and immigrant women

Understanding the health of immigrant women adds more levels of complexity. General theories about immigrants' health seem to have lower applicability for understanding the health of women, including if the immigrant health paradox is true for women (Delara, 2016; Im & Yang, 2006; Meadows, Read & Reynolds, 2012; Medows, Thurston & Melton, 2001; Urquia, O'Campo & Heaman,2012). A large body of sociological scholarship has shown that women experience migration differently from men and that can have important consequences for their health and well-being. Women could be less health-selected in migration and also might enjoy fewer of the health benefits (Kim et al., 2013; Read & Reynolds, 2012; Shor, Roelfs, & Vang, 2017). Their motivation for migration could be more for family reasons that for employment (Read & Reynolds, 2012). Further, women are more likely to migrate later in life than men (Kanaiaupuni, 2000) which

means that they are exposed longer to harder socioeconomic circumstances (Gubernskaya, 2014) and gender based discrimination in their home countries, both of which can influence disease risks (Galobardes, Lynch & Davey Smith, 2004; Jayachandran, 2015; WHO, 2009). Some of the pre-migration experiences can help in understanding the long-term consequences of the health of immigrant women and also the potential different health benefits that women might get from migration compared to men (Llacer et al., 2007).

For example, in many countries from Asia, girls are treated differently from boys starting in infancy (Fikree & Pasha, 2004) which includes being offered lower nutrition (Borooah, 2004; Vlasoff, 2007), access to immunization and medical care (Fledderjohann et al., 2014; Prusty & Kumar, 2014; Sen, 1992; 2001a,b, Singh, 2012). Girls are also more likely to be less educated (Jayachandran, 2015; UNESCO, 2013, 2015, 2016), be married as children (UNICEF, 2010, 2014), to be subjected to harmful gender practices with immediate and long term health consequences like female genital mutilation (Berg & Denison, 2013; Berg, 2014; Reisel & Creighton, 2015), have limited access to health care (WHO, 2009) and also experience gender based violence by intimate and non-intimate partners and rape in wars and refugee camps (Vu et al., 2014; Watts & Zimmerman, 2002; WHO, 2005, 2012). Health studies also show that women's experiences on the journey from the origin to the destination country are different than that of men and that has important consequences for their physical and mental health (Pittaway & Bartolomei, 2001; Zimmerman et al., 2011). Some of these studies refer to the experiences of abuse as victims of human trafficking (Zimmerman et al., 2011) and of violence and sexual violence experienced by women in forced migration or undocumented circumstances (Adanu & Johnson, 2009; Freedman et al., 2016).

An important body of empirical research and sociological scholarship focuses on understanding post-migration factors that shape the health of immigrant and refugee women. Among these efforts some studies focus on inequality in women's private lives and consider whether or not gender roles are reproduced in the new country after migration and how it will become embodied in their health. In this line of reasoning, there is a question as to whether migration might be an empowering experience for women (Hondagneu-Sotelo & Cranford, 2006) and if they have a better life than they had in their home countries, (Delara, 2016). In addition, how gender inequalities in private life affect their health in the new country has been studied (Liacer et al., 2007). Numerous studies have found traditional, less egalitarian gender roles and various aspects of intra-household gender inequality are reproduced after migration. Along this line, studies from United States and Canada have found supporting evidence that gender roles from home countries are reproduced post-migration (Frank & Hou, 2015). Women from countries with more traditional gender roles are less likely to join the workforce and more likely to assume a larger share of household work and even more traditional roles are strongly maintained among women married to men with the same national origin (Frank & Hou, 2015).

Country of origin gender roles are also transmitted to the second generation's fertility and labor supply patterns (Blau et al., 2013). Also, European studies found that less egalitarian gender values seem more stable among first generation immigrants and become more egalitarian in the next generations and with more time spent in the reception country (Röder & Mühlau, 2014). Further, many immigrants maintain their preference for residential segregation or living in immigrant/ethnic enclaves (Paloni & Arias, 2004). However, researchers argue that despite the fact that immigrants in enclaves get social and

instrumental support that can be a health protector (Osypuk, Bates & Acevedo-Garcia, 2010; Paloni & Arias, 2004) or that can foster better health behaviors (Kane, Teitler, & Reichman, 2018), ethnic enclaves might be more beneficial for immigrant men's health than that of women (Janevic et al., 2014; Liacer et al., 2007). In fact, in ethnic enclaves, women appear to be more isolated (Menjívar & Salcido, 2002), and the presence of co-ethnics potentially favors the reinforcement of traditional gender roles and of the corresponding intra-household gender inequality (Liacer et al., 2007).

Studies have also shown how traditional gender roles from countries of origin continue to shape intra household behavior and reproduce inequality between partners after migration. Asian and Latino immigrant women take a large burden of the unpaid work for household responsibilities (Gurrieri, 2005; Lim, 1997; Min, 2001). Women also take a larger share of caregiver work, looking after children or ill family members (Mendez-Luck & Anthony, 2015) as prescribed by cultural norms and supported by intergenerational solidarity (John, Resendiz, & De Vargas, 1997; Miyawaki, 2015). Furthermore, immigrant women experience role strain and continue to live in patriarchal relationships in which they have limited power in a variety of domains in their private life (Parrado, Flippen, & McQuiston, 2005; Pyke & Johnson, 2003). One other important dimension of intra-household gender inequality that is reproduced or that may have begun pre-migration but continues during migration and also post-migration is intimate partner violence. Although the rates do not vary significantly from U.S born women (Logan et al., 2006) and have the same physical and mental health consequences, studies have shown that immigrant women are more vulnerable, are more isolated and have less social support than U.S. born women (Adames & Campbell, 2005; Gonçalves & Matos, 2016).

A recent systematic review found that the prevalence of intimate partner violence ranges from 17% to 70.5% among South-Asian immigrant women and 37% among Latina and Spanish women (Gonçalves & Matos, 2016). Further, a large number of immigrant women from Mexico, estimated between 51% (Gonçalves & Matos, 2016) up to 82.5%, also experience psychological aggression (Hazen & Soriano, 2007). Immigrant women appear to perceive more individual and structural barriers when living in abusive relationships and were found to be more controlled and afraid of their abuser (Amanor-Boadu et al., 2012; Lee & Hadeed, 2009) and more afraid to ask for help (Black et al., 2011; Lyon, Bradshaw & Menard, 2011). In addition, immigrant women can also experience abuse related to their immigration status and might feel trapped because they have a dependent visa status or are undocumented (Bent-Goodley, 2007; Raj & Silverman, 2002). As a consequence, if they turn to authorities for help, their undocumented status can be revealed, and they can face the risk of deportation and separation from their children. Some estimates of the prevalence of domestic violence range between 59.5% among married immigrant women and even higher, up to 77% among married non-immigrant women holding a dependent visa status (Davis, 2004).

Placing intra-household gender inequality in the global context

Based on the preliminary health studies, it is critical to examine more closely the relationship between inequality in private life, which remains relatively constant pre-to-post-migration, and post-migration-related stress factors and how both contribute to health outcomes among immigrant women. Inequality in private life is a very important part of life in the countries of origin, which is unlikely to change after migration, is known to affect

the health of women in all countries including those where there is a high degree of gender equality (Sweden, Finland). Also, it is also important to understand how these two factors intersect with experiences of interpersonal racial discrimination that can come into play with immigration status. Intra-household inequality has the effect of reducing women's agency and these effects may be even more pronounced following immigration. Thus, one starting point is to examine the role that gender inequality plays in a global context; that is, examining its persistence from one culture to another.

Intra-household gender inequality in the developing world is a major concern affecting women's lives and its consequences on health and agency need to be analyzed considering the context of multiple forms of discrimination and disadvantage experienced by women (Iversen, 2003; Jayachandran, 2015). A large number of studies from international organizations show the presence of inequality in the private sphere, of intra-household gender inequality and the impact on the health and well-being of women across the world. Numerous reports and studies that used data collected in many nations across the developing world in the Health and Demographic Surveys conducted by the United States Agency for International Development (USAID)(Fabic, Choi & Bird, 2012; USAID, 2018) and the UNICEF-supported Multiple Indicator Cluster Surveys (Hancioglu & Arnold, 2013) indicate that woman's social status in society is an important determinant of her and her children's health and well-being (USAID, 2005; 2018). Intra-household gender inequality reflects a power imbalance between partners that is most extremely expressed in interpersonal violence perpetrated by partners, who are overwhelmingly male (Garcia-Moreno et al., 2006, 2015; Hindin, Kishor & Ansara, 2008; WHO, 2005). It is also expressed in the unequal burden of paid and unpaid work like household responsibilities

and responsibilities for child and adult care (Leopold, Ratcheva & Zahidi, 2016; WHO, 2009). Yet another expression of it is women's limited bargaining power within the couple (Dito, 2015; Farré, 2013; USAID, 2005; World Bank, 2014) that has been found to be associated with women's physical and mental health and to explain, in part, gender health disparities in developing (USAID, 2005; WHO, 2009) and in industrialized countries (Borrell et al., 2013, Moss, 2002).

Intra-household gender inequalities are particularly pronounced in developing countries and more overt negative discrimination against women is linked with increased mortality, in the phenomenon called "missing women" (Sen, 1987). In countries from South Asia, if female-male ratios are examined and compared with the ratios from countries from Europe and United States millions of women are "missing", showing how discrimination may be determining women's' healthy life expectancy (Sen, 1990, 1992, 2001b,, 2003). In some parts of Asia and Africa, the status of a girl child is inferior to that of a boy, and discrimination against the girl child starts even prenatally with sex selective abortion in several countries, including India, China and South Korea (Zhu, Lu, & Hesketh, 2009; Arnold, Kishor, & Roy, 2002; Melhado, 2011, Junhong, 2001; Sen, 2003). In South Asia, the preference for sons is culturally determined and families see less economic utility for girls (Fikree & Pasha, 2004). Compared to boys, girls are less likely to survive to the age of 5 (Fikree & Pasha, 2004). Family preferences for sons can be manifested in the neglect for the care of daughters, in sex bias in the family allocation of food (Borooah, 2004) and in health care in the early years of development (Fledderjohann et al., 2014; Prusty & Kumar, 2014; Sen, 1992; 2001a,b, Singh, 2012).

Gender norms that favor boys over girls can have direct, harmful effects on girls' health and can generate gender inequalities that may ultimately have harmful short and long term physical or mental health consequences. For example, in many developing countries, both gender norms and poverty prevent girls from receiving an education, thus further increasing gender inequalities in employment (Jayachandran, 2015; UNESCO, 2013, 2015, 2016). Gender disparities in enrollment and school attainment still exist and poverty deepens gender disparity (UNESCO, 2015). Around 20 % of girls are victims of child sexual abuse (Garcia- Moreno et al., 2015) and 720 million women in the world were married as children, effectively taking away their childhoods (UNICEF, 2014), compromising their development (UNICEF, 2009) and education opportunities (UNICEF, 2009, 2014). Child marriage disproportionately affects girls (UNICEF, 2010, 2014) and exposes them to the risk of violence (UNICEF, 2016), social isolation and exploitation (UNICEF, 2009, UNFPA, 2012) as well as developing psychiatric disorders (Le Strat, Dubertret & Le Foll, 2011). Child brides are also at higher risks of HIV (UNICEF, 2016), multiple births or unwanted pregnancies (Raj et al., 2009; Salvi, 2009) and birth related health complications of the mother and the offspring, including maternal and infant mortality (Raj, & Boehmer, 2013; UNICEF, 2009). Around 125 million girls worldwide have been forced to undergo female genital mutilation each year (Garcia- Moreno et al., 2015; UNICEF, 2013, 2016). This harmful procedure has immediate and long lasting physical and mental health consequences (Berg & Denison, 2013; Berg et al., 2014; Reisel & Creighton, 2015).

In adulthood, gendered disparities in earnings and household work and care responsibilities persist and are supported by social norms and subsequent public policies

(World Bank, 2012). Gender inequalities in paid and unpaid work between women and men persist in all countries in the world and across women's lifespan (Leopold, Ratcheva & Zahidi, 2016). Further, women have limited time-autonomy and when coupled with poverty is linked to harsher home conditions and more labor-intensive home production (Jayachandran, 2015). In virtually all countries in the world, women are more likely to find low-productivity employment compared to men, and in developing countries, socio-economic disparities widen even more based on lower access, ownership and control over assets, credit and time-use (World Bank, 2012, 2014). Their work in the household is also perceived as less valuable than being employed for income (Vlasoff, 2007). Women also have less voice in society and in decision making in the household, including deeply private matters such as their own fertility, mobility or use of health services (Jayachandran, 2015; World Bank, 2012 a, b) or decisions regarding their children (Richards et al., 2013; Tolhurst et al., 2008). Extreme forms of control over women and punishment for not conforming to norms are the honor killings, where members of families believe that women brought shame upon their families (Garcia- Moreno et al., 2015; Nasrullah, Haqqi & Cummings, 2009). In assessing harms created by intra-household gender inequalities, a large body of research has focused on describing and understanding its effects on women. There are various gender norms, values, attitudes, and behaviors that restrict women's ability to pursue the goals they value. All have important impacts on their health and well-being (World Bank, 2012, 2014; USAID, 2005). Numerous reports from the Health and Demographic Surveys conducted by the United States Agency for International Development (USAID) show that, for example, power imbalance within households in the

developing world result in women having limited access to decision making and control over resources within the family (World Bank, 2012; 2014; USAID, 2005; 2018).

Empirical studies that used data from the USAID Health and Demographic Surveys showed that woman's ability to make decisions or at least to cooperate with their partners in decision-making is associated with better health outcomes (Kishor, 2005; World Bank, 2012; Mabsout, 2011), better nutrition (Kishor, 2005), higher use of health services including maternal health services (Ameyaw et al., 2016; Beegle, Frankenberg & Thomas, 2001; Kishor, 2005), use of contraceptives (Sano et al., 2018a), negotiating safer sex practices (Sano et al., 2018b), health awareness (Viens, Clouston & Messina, 2016), and the ability to negotiate greater birth to conception intervals (Jatrana & Pasupuleti, 2015). Another important limiting factor pertaining women's ability to pursue their goals and thus affecting their physical and mental health is gender-based intimate partner violence (WHO, 2012). The World Health Organization estimates that globally the lifetime prevalence of physical or sexual violence perpetrated by a partner is 30% and the prevalence is highest in countries from Africa, the Eastern Mediterranean region and South-East Asia where approximately 37% of women experienced violence in their lives (WHO 2012, 2013). In some developing countries, the prevalence can be as high as 71% and in almost half of cases women reported severe physical violence (WHO, 2005). Women can also experience various forms of emotional abuse from their partners, restriction on their mobility in interacting with family, friends (Jayachandran, 2015) and also in their ability and freedom to access medical care (WHO, 2005).

Perceived interpersonal discrimination and intra household gender inequality

Among other post-migration factors that have been found to affect the health of immigrant women are experiences of discrimination. Along with potentially facing unkind and unfair treatment in the home after migration, numerous empirical studies have shown that immigrant women can experience various forms of discrimination (Hersch, 2011). Analysis of structural discrimination and studies that explored the consequences of interpersonal experiences of unfair treatment attributed to race, skin color, language, ethnicity or national origin find that discrimination is associated with various physical and mental health outcomes among immigrants and refugees. Studies examining structural factors like policies that restrict immigrants' access to education, health care and material conditions (Bailey et al., 2017; Gee, 2008; Krieger, 2012; Philbin et al., 2018), immigration policies (Hatzenbuehler et al, 2017), anti-immigrant attitudes and rhetoric (Morey, 2018) show how these factors reinforce structural racism and affect the mental and physical health of immigrants and refugees. Along with the analysis of structural factors, empirical studies also support that experiences of unfair treatment in interpersonal interactions are also harmful for health and mental health. Along this line, a substantial body of empirical research supports the view that racial and ethnic discrimination are linked through multiple pathways to adverse health outcomes (Abdulrahim et al., 2012). Bailey et al., 2017; Harrell et al., 2011; Williams & Mohammed, 2009, 2013). Racial and ethnic discrimination appear to affect various physical health outcomes (Blodorn, Major & Kaiser 2016; Flores et a., 2008; Krieger, 1990, 2012; Krieger 2005, 2008, 2012; Li & Dong, 2017; Williams & Mohammed, 2009; Wyatt et al., 2003), experience of chronic pain (Brown et al., 2018), risky behaviors (Pascoe & Richman, 2009), risk factors for chronic diseases (Gee et al.,

2007; Ryan, Gee & Laflamme, 2006; Siddiqi et al., 2017; Van Dyke et al., 2016) and general self-reported health status (Paradies et al., 2015). Furthermore, empirical research overwhelmingly supports that experiencing racism in interpersonal contact or witnessing racism and discrimination is associated with various mental health outcomes including depression, suicidal ideation, planning and/or attempts, anxiety, psychological stress, post-traumatic stress and post-traumatic stress disorder (Gee et al., 2007; Kessler, Mickelson, and Williams, 1999; Lewis, Cogburn & Williams, 2015; Paradies et al., 2015).

Eco-social theory: this study's theoretical underpinning

All three papers are undergirded by the eco-social theory, elaborated by Krieger (1994) and offering a novel view in explaining the etiology, experience, and social patterning of diseases (Krieger, 2001a, 2011, 2012a, 2005, 2014). The central concept of the theory is embodiment:

> "Embodiment, a concept referring how we literally incorporate, biologically, the material world in which we live, from conception to death; a corollary is that no aspect of our biology can be understood absent knowledge of history and individual and societal way of living". (Krieger, 2011, pg 214).

The theory proposes a multi-level framework for understating social inequalities in health. Human beings are both biological organisms and as members of a society, embedded in multiple hierarchical and inter-related systems (Krieger 2001, 2004, 2008, 2011, 2011b). Their bodies will remember their lives, lived inequalities and experiences of injustice and will tell and express their life stories in ill health (Krieger 2003, 2004).

Trauma studies of the past three decades have given supporting evidence that social experiences with inequality and loss of personal power become embodied in human physiology (Van der Kolk, 2014). Brain imaging studies in neurophysiology performed on children and adults have shown that trauma shows clear damage to neural density associated with victimization and also how trauma inflicts long lasting changes on the amygdala, hippocampus, and prefrontal cortex, parts of the brain that are implicated in the stress response and management of negative effects (Afifi et al., 2008; Bremner, 2006; Hughes & Shin, 2011; Hull, 2002; Kitayama, Quinn & Bremner, 2006; Stein et al., 1997).

The theory also suggests that social epidemiology needs to consider the societal arrangements in which people live and circumstances in which they "inhabit their bodies" and their access to resources and power (Krieger, 2001a, 2001b, 2004, 2011, 2012). Further, similar life experiences will be manifest in population patterns of disease. Examples of similar experiences that shape population patterns of diseases are poverty and social deprivation experienced by children that will contribute to intergenerational transmission of inequality and disadvantage. Multiple studies have shown how early severe disadvantage during childhood has long-term consequences for health, wellbeing, and how socioeconomic status disproportionately affects poor children's neurocognitive abilities such as supporting the acquisition and attainment of language, reading, executive functions, and spatial skills (Dube et al., 2003 a, b; Noble et al., 2015). Exposure to chronic, toxic stress in childhood and inadequate care can result in impairments in learning, memory, and ability to regulate stress responses (Katsnelson, 2015; National Scientific Council on the Developing Child, 2005/2014). Also, children who grow up poor (with all its attendant problems) are less likely to have a growth mindset

which helps in school achievement (Claro, Paunesku & Dweck, 2016; Chapman et al., 2004; Danese & McEvans, 2012). Other studies show that early experiences of stress may alter the brain and predispose one for later risk-taking behaviors as adults (Birn, Roeber & Pollak, 2017; Van der Kolk, 2014).

The theory also suggests potential pathways of embodiment that include poverty, social deprivation, discrimination, trauma, exposure to toxic substances and inadequate health care (Krieger, 2001a, 2001b, 2004 b, 2011, 2012). The cumulative pathways of embodiment are conceptualized as an interaction on multiple levels and on different domains of life. An example of embodiment can be found in the adverse childhood experiences (ACE) that have been shown to be associated with numerous negative physical and mental health outcomes that create and then further exacerbate cumulative disadvantage across the lifespan (Anda et al., 2006; Anda et al., 2002; Afifi et al., 2008; Brown et al, 2009; Chapman et al., 2004; Danese & McEwen, 2012; Dube et al., 2003a, b; Edwards et al., 2003; Felitti et al., 1998; Hillis et al., 2004; Nemeroff, 2004; Nurius et al., 2012).

Rationale for the papers included in this dissertation

The three papers making up this dissertation explore the possible consequences on women's health when experiencing two forms of unfair and unkind treatment in two different spheres of their lives: intra-household inequality in the private sphere and interpersonal discrimination in the public sphere. The three research papers consider the experiences of women living in one of the most gender equal countries in the world, the United States. The first, looks at Latino and Asian immigrant women and how after

crossing borders of nations states, they embody these two forms of inequality in the host country. Previous empirical research and sociological scholarship shows the need to understand how gender relations are reproduced after migration and how that can affect the health of immigrant women. The next two papers explore the same experiences among women in the general population. Previous studies have shown that inequality in private life appears to be a determinant of women's health in many countries around the world including in gender equal societies such as Sweden, Finland, and United States and can help to explain health, both physical and mental health outcomes of women and gender inequalities in health (Borrell et al., 2014). Further, the complex interaction of gender and other forms of social identity, trauma, stressful life experiences, inequalities and statuses (including, race/ethnicity, foreign born status, financial status or social class) contribute to health disparities among women. The research is limited however, in exploring the cumulative effects of experiencing both, intra-household gender inequality and interpersonal discrimination. To put it another way, what is the health "penalty" that immigrant and American women pay for experiencing these two forms of unfair and unkind treatments?

The eco-social theory and gender analysis in the papers for this dissertation

Krieger's eco-social theory can help in understanding various pathways through which women come to embody the world in which they live in. The theory suggests that women's' agency is constrained by socially structured opportunities and the interaction of multiple experiences of inequality affects their health across their lifespan (Krieger, 2004). Women embody different statuses of inequality and marginality at the intersection

of gender, race, ethnicity and social class that can limit their access to power and resources and are detrimental to their health and well-being (Krieger, 2003, 2011). The cumulative effect of intrahousehold gender inequality and multiple forms of discrimination in interpersonal interactions can put them women at greater risk for adverse physical and mental health outcomes and compromised well-being. The theory guides empirical work to also consider gender analysis in health research and the impact of discrimination on health (Krieger, 2003, 2011). It guides empirical work to conceptualize gender beyond a binary variable and consider the social construction of gender, the prescribed gender roles and variability across cultures and along with other forms of inequality like race, class, ethnicity, caste, sexual orientation (Krieger, 2003; Moss, 2002; Sen & Östlin 2008). Gender-specific analysis is particularly important for understanding the health of immigrant women by comparison to men and can help reveal how various post-migration circumstances can play a role in producing and reproducing gender relations across borders and their impact on their health and wellbeing (Acevedo-Garcia & Almeida, 2012; Acevedo-Garcia; Krieger, 2003, 2011, Llacer et al., 2007; Acevedo-Garcia et al, 2012; Zimmerman, Kiss & Hossain, 2011).

References

Abdulrahim, S., James, S. A., Yamout, R., & Baker, W. (2012). Discrimination and psychological distress: Does Whiteness matter for Arab Americans? *Social science & medicine*, *75*(12), 2116-2123.

Abraido-Lanza, A. F., Chao, M. T., & Florez, K. R. (2005). Do healthy behaviors decline with greater acculturation? Implications for the Latino mortality paradox. *Social science & medicine*, *61*(6), 1243-1255.

Acevedo-Garcia, D., & Almeida, J. (2012). Special issue introduction: place, migration and health. *Social science & medicine (1982)*, *75*(12), 2055.

Acevedo-Garcia, D., Sanchez-Vaznaugh, E. V., Viruell-Fuentes, E. A., & Almeida, J. (2012). Integrating social epidemiology into immigrant health research: a cross-national framework. *Social science & medicine*, *75*(12), 2060-2068.

Acevedo-Garcia, D., Bates, L. M., Osypuk, T. L., & McArdle, N. (2010). The effect of immigrant generation and duration on self-rated health among US adults 2003–2007. Social science & medicine, 71(6), 1161-1172.

Adames, S. B., & Campbell, R. (2005). Immigrant Latinas' conceptualizations of intimate partner violence. *Violence Against Women*, *11*(10), 1341-1364.

Adanu, R. M., & Johnson, T. R. (2009). Migration and women's health. *International Journal of Gynecology & Obstetrics*, *106*(2), 179-181.

Afifi, T. O., Enns, M. W., Cox, B. J., Asmundson, G. J., Stein, M. B., & Sareen, J. (2008). Population attributable fractions of psychiatric disorders and suicide ideation and attempts associated with adverse childhood experiences. *American journal of public health*, *98*(5), 946-952.

Alegria, M., Takeuchi, D., Canino, G., Duan, N., Shrout, P., Meng, X. L., ... & Vera, M. (2004). Considering context, place and culture: The National Latino and Asian American Study. *International journal of methods in psychiatric research*, *13*(4), 208-220.

Alegría, M., Canino, G., Shrout, P. E., Woo, M., Duan, N., Vila, D., ... & Meng, X. L. (2008). Prevalence of mental illness in immigrant and non-immigrant US Latino groups. *American Journal of Psychiatry*, *165*(3), 359-369.

Alemi, Q., James, S., Cruz, R., Zepeda, V., & Racadio, M. (2013). Psychological Distress in Afghan Refugees: A Mixed-Method Systematic Review. Journal of Immigrant and Minority Health, 1-15.

Amanor-Boadu, Y., Messing, J. T., Stith, S. M., Anderson, J. R., O'Sullivan, C. S., & Campbell,

J. C. (2012). Immigrant and Nonimmigrant Women Factors That Predict Leaving an Abusive Relationship. *Violence against women*, *18*(5), 611-633

Ameyaw, E. K., Tanle, A., Kissah-Korsah, K., & Amo-Adjei, J. (2016). Women's health decision-making autonomy and skilled birth attendance in Ghana. *International journal of reproductive medicine*, *2016*.

Amnesty International (2014). Torture in 2014. 30 Years of broken promises. Retrieved from https://www.amnesty.org/en/documents/ACT40/004/2014/en/

Anda, R. F., Whitfield, C. L., Felitti, V. J., Chapman, D., Edwards, V. J., Dube, S. R., & Williamson, D. F. (2002). Adverse childhood experiences, alcoholic parents, and later risk of alcoholism and depression. *Psychiatric services*, *53*(8), 1001-1009.

Anda, R., Felitti, VJ, Walker, J, Whit, CL (2006). "The enduring effects of abuse and related adverse experiences in childhood: A convergence of evidence from neurobiology and epidemiology." European Archives of Psychiatry and Clinical Neurosciences 256(3): 174-186.

Angel, J. L., & Angel, R. J. (1992). Age at migration, social connections, and well-being among elderly Hispanics. *Journal of aging and health*, *4*(4), 480-499

Arnold, F., Kishor, S., & Roy, T. K. (2002). Sex-Selective Abortions in India. *Population and development review*, *28*(4), 759-785.

Ayala, G. X., Baquero, B., & Klinger, S. (2008). A systematic review of the relationship between acculturation and diet among Latinos in the United States: implications for future research. *Journal of the American Dietetic Association*, *108*(8), 1330-1344.

Bailey, Z. D., Krieger, N., Agénor, M., Graves, J., Linos, N., & Bassett, M. T. (2017). Structural racism and health inequities in the USA: evidence and interventions. *Lancet (London, England)*, *389*(10077), 1453-1463.

Bambra, C., Pope, D., Swami, V., Stanistreet, D., Roskam, A., Kunst, A., & Scott-Samuel, A. (2009). Gender, health inequalities and welfare state regimes: a cross-national study of 13 European countries. *Journal of Epidemiology & Community Health*, *63*(1), 38-44.

Beegle, K., Frankenberg, E., & Thomas, D. (2001). Bargaining power within couples and use of prenatal and delivery care in Indonesia. *Studies in family planning*, *32*(2), 130-146.

Bent-Goodley, T. B. (2007). Health disparities and violence against women: Why and how cultural and societal influences matter. *Trauma, Violence, & Abuse*, *8*(2), 90-104.

Berg, R. C., & Denison, E. (2013). A tradition in transition: factors perpetuating and hindering the continuance of female genital mutilation/cutting (FGM/C) summarized in a systematic review. *Health care for women international*, *34*(10), 837-859.

Berg, R. C., Underland, V., Odgaard-Jensen, J., Fretheim, A., & Vist, G. E. (2014). Effects of female genital cutting on physical health outcomes: a systematic review and meta-analysis. *BMJ open*, *4*(11),

Berkman, L. F., Kawachi, I., & Glymour, M. M. (Eds.). (2014). *Social epidemiology*. Oxford University Press.

Berger, R., & Weiss, T. (2006). Posttraumatic growth in Latina immigrants. *Journal of Immigrant & Refugee Studies*, *4*(3), 55-72.

Bhatta, M. P., Shakya, S., Assad, L., & Zullo, M. D. (2014). Chronic Disease Burden Among Bhutanese Refugee Women Aged 18–65 Years Resettled in Northeast Ohio, United States, 2008–2011. Journal of Immigrant and Minority Health, 1-8

Blas, E., & Kurup, A. S. (Eds.). (2010). *Equity, social determinants and public health programmes*. World Health Organization.

Birn, R. M., Roeber, B. J., & Pollak, S. D. (2017). Early childhood stress exposure, reward pathways, and adult decision making. *Proceedings of the National Academy of Sciences*, 201708791.

Bjornstrom, E. E., & Kuhl, D. C. (2014). A different look at the epidemiological paradox: Self-rated health, perceived social cohesion, and neighborhood immigrant context. *Social Science & Medicine*, *120*, 118-125.

Black, M.C., Basile, K.C., Breiding, M.J., Smith, S.G., Walters, M.L., Merrick, M.T., Chen, J., & Stevens, M.R. (2011). The National Intimate Partner and Sexual Violence Survey (NISVS): 2010 Summary Report. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. Retrieved on December 10, 2012 from http://www.cdc.gov/ViolencePrevention/pdf/NISVS_Report2010-a.pdf

Blau, F. D., Kahn, L. M., Liu, A. Y. H., & Papps, K. L. (2013). The transmission of women's fertility, human capital, and work orientation across immigrant generations. *Journal of Population Economics*, *26*(2), 405-435.

Boerma, T., Hosseinpoor, A. R., Verdes, E., & Chatterji, S. (2016). A global assessment of the gender gap in self-reported health with survey data from 59 countries. *BMC public health*, *16*(1), 675.

Borrell, C., Palència, L., Muntaner, C., Urquía, M., Malmusi, D., & O'campo, P. (2013). Influence of macrosocial policies on women's health and gender inequalities in health. *Epidemiologic reviews*, *36*(1), 31-48.

Borooah, V. K. (2004). Gender bias among children in India in their diet and immunisation against disease. *Social science & medicine*, *58*(9), 1719-1731.

Bremner, J. D. (2006). Traumatic stress: effects on the brain. *Dialogues in clinical neuroscience*, *8*(4), 445.

Brown, D. W., Anda, R. F., Tiemeier, H., Felitti, V. J., Edwards, V. J., Croft, J. B., & Giles, W. H. (2009). Adverse childhood experiences and the risk of premature mortality. *American journal of preventive medicine*, *37*(5), 389-396.

Brown, T. T., Partanen, J., Chuong, L., Villaverde, V., Griffin, A. C., & Mendelson, A. (2018). Discrimination hurts: The effect of discrimination on the development of chronic pain. *Social Science & Medicine*, *204*, 1-8.

Casado, B. L., Hong, M., & Harrington, D. (2010). Measuring migratory grief and loss associated with the experience of immigration. *Research on Social Work Practice*, *20*(6), 611-620.

Chae, D. H., & Yoshikawa, H. (2008). Perceived group devaluation, depression, and HIV-risk behavior among Asian gay men. *Health Psychology*, *27*(2), 140.

Chapman, D. P., Whitfield, C. L., Felitti, V. J., Dube, S. R., Edwards, V. J., & Anda, R. F. (2004). Adverse childhood experiences and the risk of depressive disorders in adulthood. *Journal of affective disorders*, *82*(2), 217-225.

Chou, K. L. (2007). Psychological distress in migrants in Australia over 50 years old: a longitudinal investigation. Journal of affective disorders, 98(1), 99-108.

Claro, S., Paunesku, D., & Dweck, C. S. (2016). Growth mindset tempers the effects of poverty on academic achievement. *Proceedings of the National Academy of Sciences*, *113*(31), 8664-8668.

Colen, C. G., Ramey, D. M., Cooksey, E. C., & Williams, D. R. (2018). Racial disparities in health among nonpoor African Americans and Hispanics: the role of acute and chronic discrimination. Social Science & Medicine, 199, 167-180.

Commission on Social Determinants on ealth (2008). Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health. Geneva, World Health Organization. Retrieved from http://apps.who.int/iris/bitstream/10665/43943/1/9789241563703_eng.pdf.

Cooper, H. (2002). Investigating socio-economic explanations for gender and ethnic inequalities in health. *Social science & medicine*, *54*(5), 693-706.

Danese, A., & McEwen, B. S. (2012). Adverse childhood experiences, allostasis, allostatic load, and age-related disease. *Physiology & behavior*, *106*(1), 29-39.

Davies, A. A., Borland, R. M., Blake, C., & West, H. E. (2011). The dynamics of health and return migration. *PLoS medicine*, *8*(6), e1001046.

Davis, K. A. (2004). Unlocking the Door by Giving Her the Key: A Comment on the Adequacy of the U-Visa as a Remedy. *Ala. L. Rev.*, *56*, 557.

DesMeules, M., Gold, J., McDermott, S., Cao, Z., Payne, J., Lafrance, B., ... & Mao, Y. (2005). Disparities in mortality patterns among Canadian immigrants and refugees, 1980–1998: results of a national cohort study. Journal of Immigrant and Minority Health, 7(4), 221-232.

Delara, M. (2016). Social determinants of immigrant women's mental health. *Advances in Public Health*, *2016*.

Dito, B. B. (2015). Women's Intrahousehold Decision-Making Power and Their Health Status: Evidence from Rural Ethiopia. *Feminist Economics*, *21*(3), 168-190.

Donato, K. M., Alexander, J. T., Gabaccia, D. R., & Leinonen, J. (2011). Variations in the gender composition of immigrant populations: How they matter. *International Migration Review*, *45*(3), 495-526.

Dube, S. R., Felitti, V. J., Dong, M., Chapman, D. P., Giles, W. H., & Anda, R. F. (2003a). Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: the adverse childhood experiences study. *Pediatrics*, *111*(3), 564-572.

Dube, S. R., Felitti, V. J., Dong, M., Giles, W. H., & Anda, R. F. (2003b). The impact of adverse childhood experiences on health problems: evidence from four birth cohorts dating back to 1900. *Preventive medicine*, *37*(3), 268-277.

Edwards, V. J., Holden, G. W., Felitti, V. J., & Anda, R. F. (2003). Relationship between multiple forms of childhood maltreatment and adult mental health in community respondents: results from the adverse childhood experiences study. *American Journal of Psychiatry*, *160*(8), 1453-1460.

Fabic, M. S., Choi, Y., & Bird, S. (2012). A systematic review of Demographic and Health Surveys: data availability and utilization for research. *Bulletin of the World Health Organization*, *90*, 604-612.

Farré, L. (2013). *The role of men in the economic and social development of women: Implications for gender equality*. The World Bank.

Farrer, L., Marinetti, C., Cavaco, Y. K., & Costongs, C. (2015). Advocacy for health equity: a synthesis review. *The Milbank Quarterly*, *93*(2), 392-437.

Fazel, M., Wheeler, J., & Danesh, J. (2005). Prevalence of serious mental disorder in 7000 refugees resettled in western countries: a systematic review. The Lancet, 365(9467), 1309-1314.

Fikree, F. F., & Pasha, O. (2004). Role of gender in health disparity: the South Asian context. *BMJ: British Medical Journal*, *328*(7443), 823.

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American journal of preventive medicine*, *14*(4), 245-258.

Fledderjohann, J., Agrawal, S., Vellakkal, S., Basu, S., Campbell, O., Doyle, P., ... & Stuckler, D. (2014). Do girls have a nutritional disadvantage compared with boys? Statistical models of breastfeeding and food consumption inequalities among Indian siblings. *PloS one*, *9*(9), e107172.

Flores, E., Tschann, J. M., Dimas, J. M., Bachen, E. A., Pasch, L. A., & de Groat, C. L. (2008). Perceived discrimination, perceived stress, and mental and physical health among Mexican-origin adults. *Hispanic Journal of Behavioral Sciences*, *30*(4), 401-424.

Fox, M., Thayer, Z., & Wadhwa, P. D. (2017). Assessment of acculturation in minority health research. *Social Science & Medicine*, *176*, 123-132.

Frank, K., & Hou, F. (2015). Source-Country Gender Roles and the Division of Labor Within Immigrant Families. *Journal of Marriage and Family*, *77*(2), 557-574.

Freedman, J. (2016). Sexual and gender-based violence against refugee women: a hidden aspect of the refugee" crisis". *Reproductive health matters*, *24*(47), 18-26.

Freeman, E. E., Roy-Gagnon, M. H., Samson, E., Haddad, S., Aubin, M. J., Vela, C., & Zunzunegui, M. V. (2013). The global burden of visual difficulty in low, middle, and high income countries. *PLoS One*, *8*(5), e63315.

Fryback, D. G., Dunham, N. C., Palta, M., Hanmer, J., Buechner, J., Cherepanov, D., ... & Feeny, D. (2007). US norms for six generic health-related quality-of-life indexes from the National Health Measurement study. *Medical care*, *45*(12), 1162.

Furnée, C. A., & Pfann, G. A. (2010). Individual vulnerability and the nurturing state: The case of self-reported health and relative income. Social science & medicine, 71(1), 125-133.

Gabriel, P. S., Morgan-Jonker, C., Phung, C. M., Hogg, R. S., Barrios, R., & Kaczorowski, J. (2011). Refugees and health care–the need for data: understanding the health of government-assisted refugees in Canada through a prospective longitudinal cohort. Can J Public Health, 102(4), 269-72.

Galobardes, B., Lynch, J. W., & Davey Smith, G. (2004). Childhood socioeconomic circumstances and cause-specific mortality in adulthood: systematic review and interpretation. *Epidemiologic reviews*, *26*(1), 7-21.

Garcia-Moreno, C., Jansen, H. A., Ellsberg, M., Heise, L., & Watts, C. H. (2006). Prevalence of intimate partner violence: findings from the WHO multi-country study on women's health and domestic violence. The lancet, 368(9543), 1260-1269.

García-Moreno, C., Zimmerman, C., Morris-Gehring, A., Heise, L., Amin, A., Abrahams, N., ... & Watts, C. (2015). Addressing violence against women: a call to action. *The Lancet*, *385*(9978), 1685-1695.

Gee, G. C. (2008). A multilevel analysis of the relationship between institutional and individual racial discrimination and health status. *American journal of public health*, *98*(Supplement_1), S48-S56.

Gee, G. C., Ryan, A., Laflamme, D. J., & Holt, J. (2006). Self-reported discrimination and mental health status among African descendants, Mexican Americans, and other Latinos in the New Hampshire REACH 2010 Initiative: the added dimension of immigration. *American Journal of Public Health*, *96*(10), 1821-1828.

Gee, G. C., Spencer, M. S., Chen, J., & Takeuchi, D. (2007). A nationwide study of discrimination and chronic health conditions among Asian Americans. *American Journal of Public Health*, *97*(7), 1275-1282.

Gee, G. C., Spencer, M., Chen, J., Yip, T., & Takeuchi, D. T. (2007). The association between self-reported racial discrimination and 12-month DSM-IV mental disorders among Asian Americans nationwide. *Social Science & Medicine*, *64*(10), 1984-1996.

Gonçalves, M., & Matos, M. (2016). Prevalence of violence against immigrant women: a systematic review of the literature. *Journal of family violence*, *31*(6), 697-710.

Green, D., Rasmussen, A., & Rosenfeld, B. (2010). Defining torture: A review of 40 years of health science research. Journal of traumatic stress, 23(4), 528-531.

Gubernskaya, Z. (2014). Age at migration and self-rated health trajectories after age 50: Understanding the older immigrant health paradox. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *70*(2), 279-290.

Gurrieri, J. (2005). Expert Group meeting on international migration and development in Latin America and the Carribean.

Hancioglu, A., & Arnold, F. (2013). Measuring coverage in MNCH: tracking progress in health for women and children using DHS and MICS household surveys. *PLoS medicine*, *10*(5), e1001391.

Harrell, C. J. P., Burford, T. I., Cage, B. N., Nelson, T. M., Shearon, S., Thompson, A., & Green, S. (2011). Multiple pathways linking racism to health outcomes. *Du Bois review: social science research on race*, *8*(1), 143-157.

Hatzenbuehler, M., Prins, S., Flake, M., Philbin, M., Frazer, S., Hagen, D., Hirsch, J., (2017). Immigration policies and mental health morbidity among Latinos: a state level analysis. Soc. Sci. Med. 174, 169-178.

Hazen, A. L., & Soriano, F. I. (2007). Experiences with intimate partner violence among Latina women. *Violence Against Women*, *13*(6), 562-582.Hondagneu-Sotelo, P., & Cranford, C. (2006). Gender and migration. In *Handbook of the Sociology of Gender* (pp. 105-126). Springer, Boston, MA.

Hermansson, A. C., Timpka, T., & Thyberg, M. (2002). The mental health of war-wounded refugees: an 8-year follow-up. The Journal of nervous and mental disease, 190(6), 374-380.

Hermansson, A. C., Timpka, T., & Thyberg, M. (2002). The mental health of war-wounded refugees: an 8-year follow-up. The Journal of nervous and mental disease, 190(6), 374-380.

Hersch, J. (2011). The persistence of skin color discrimination for immigrants. *Social Science Research*, *40*(5), 1337-1349.

Hillis, S. D., Anda, R. F., Dube, S. R., Felitti, V. J., Marchbanks, P. A., & Marks, J. S. (2004). The association between adverse childhood experiences and adolescent

pregnancy, long-term psychosocial consequences, and fetal death. *Pediatrics*, *113*(2), 320-327.

Hindin, Michelle J., Sunita Kishor, and Donna L. Ansara. 2008. Intimate Partner Violence among Couples in 10 DHS Countries: Predictors and Health Outcomes. DHS Analytical Studies No. 18. Calverton, Maryland, USA: Macro International Inc.

Hiott, A., Grzywacz, J. G., Arcury, T. A., & Quandt, S. A. (2006). Gender differences in anxiety and depression among immigrant Latinos. *Families, Systems, & Health*, *24*(2), 137.

Hollander, A. C. (2013). Social inequalities in mental health and mortality among refugees and other immigrants to Sweden–epidemiological studies of register data. Global health action, 6.

Holtan, N., Antolak, K., Johnson, D. R., Ide, L., Jaranson, J., & Ta, K. (2002). Unrecognized torture affects the health of refugees. Minnesota medicine, 85(5), 35-39.

Hondagneu-Sotelo, P., & Cranford, C. (2006). Gender and migration. In *Handbook of the Sociology of Gender* (pp. 105-126). Springer, Boston, MA.

Hosseinpoor, A. R., Bergen, N., Kostanjsek, N., Kowal, P., Officer, A., & Chatterji, S. (2016). Socio-demographic patterns of disability among older adult populations of low-income and middle-income countries: results from World Health Survey. *International journal of public health*, *61*(3), 337-345.

Hosseinpoor, A. R., Bergen, N., Mendis, S., Harper, S., Verdes, E., Kunst, A., & Chatterji, S. (2012a). Socioeconomic inequality in the prevalence of noncommunicable diseases in low-and middle-income countries: results from the World Health Survey. *BMC public health*, *12*(1), 474.

Hosseinpoor, A. R., Williams, J. A. S., Itani, L., & Chatterji, S. (2012b). Socioeconomic inequality in domains of health: results from the World Health Surveys. *BMC Public Health*, *12*(1), 198.

Hosseinpoor, A. R., Williams, J. S., Amin, A., De Carvalho, I. A., Beard, J., Boerma, T., ... & Chatterji, S. (2012). Social determinants of self-reported health in women and men: understanding the role of gender in population health. *PloS one*, *7*(4), e34799.

Hughes, K. C., & Shin, L. M. (2011). Functional neuroimaging studies of post-traumatic stress disorder. *Expert review of neurotherapeutics*, *11*(2), 275-285.

Hull, A. (2002). Neuroimaging findings in post-traumatic stress disorder: Systematic review. *British Journal of Psychiatry, 181*(2), 102-110

Human Rights Watch (2014). World Report 2014. Events of 2013. Retrieved from https://www.hrw.org/world-report/2014.

Im, E. O., & Yang, K. (2006). Theories on immigrant women's health. *Health care for women international*, *27*(8), 666-681.

International Organization for Migration (2013). World Migration Report 2013. Migrant Well-Being and Development. Retrieved from https://publications.iom.int/books/world-migration-report-2013.

Iversen, V. (2003). Intra-household inequality: a challenge for the capability approach?. *Feminist Economics*, *9*(2-3), 93-115.

Jamil, H., Hakim-Larson, J., Farrag, M., Kafaji, T., Jamil, L. H., & Hammad, A. (2005). Medical complaints among Iraqi American refugees with mental disorders. Journal of immigrant health, 7(3), 145-152.

Jamil, H., Nassar-McMillan, S., Lambert, R., Wang, Y., Ager, J., & Arnetz, B. (2010). Pre- and post-displacement stressors and time of migration as related to self-rated health among Iraqi immigrants and refugees in Southeast Michigan. Medicine, Conflict and Survival, 26(3), 207-222.

Junhong, C. (2001). Prenatal Sex Determination and Sex-Selective Abortion in Rural Central China. *Population and Development Review, 27*(2), 259-281.

Janevic, T., Borrell, L. N., Savitz, D. A., Echeverria, S. E., & Rundle, A. (2014). Ethnic enclaves and gestational diabetes among immigrant women in New York City. *Social Science & Medicine*, *120*, 180-189.

Jatrana, S., & Pasupuleti, S. S. R. (2015). Women's autonomy, education and birth intervals in India: Visiting the less familiar. *Asian Population Studies*, *11*(2), 172-190.

Jayachandran, S. (2015). The roots of gender inequality in developing countries. *economics*, *7*(1), 63-88.

John, R., Resendiz, R., & De Vargas, L. W. (1997). Beyond familism? Familism as explicit motive for eldercare among Mexican American caregivers. *Journal of Cross-Cultural Gerontology*, *12*(2), 145-162.

Jun, H. J., Subramanian, S. V., Gortmaker, S., & Kawachi, I. (2004). A multilevel analysis of women's status and self-rated health in the United States. *Journal of the American Medical Women's Association (1972)*, *59*(3), 172-180.

Kanaiaupuni, S. M. (2000). Reframing the migration question: An analysis of men, women, and gender in Mexico. *Social forces*, *78*(4), 1311-1347.

Kandel, W., & Massey, D. S. (2002). The Culture of Mexican Migration: A Theoretical and Empirical Analysis. *Social Forces*, *80*(3), 981-1004.

Kane, J. B., Teitler, J. O., & Reichman, N. E. (2018). Ethnic enclaves and birth outcomes of immigrants from India in a diverse US state. *Social Science & Medicine*, *209*, 67-75.

Katsnelson, A. (2015). News Feature: The neuroscience of poverty. *Proceedings of the National Academy of Sciences*, *112*(51), 15530-15532.

Kennedy, S., Kidd, M. P., McDonald, J. T., & Biddle, N. (2015). The healthy immigrant effect: patterns and evidence from four countries. *Journal of International Migration and Integration*, *16*(2), 317-332.

Kessler, R. C., Mickelson, K. D., & Williams, D. R. (1999). The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. *Journal of health and social behavior*, 208-230. Khoo, S. E. (2010). Health and humanitarian migrants' economic participation. *Journal of immigrant and minority health*, *12*(3), 327-339.

Kim, I. H., Carrasco, C., Muntaner, C., McKenzie, K., & Noh, S. (2013). Ethnicity and post migration health trajectory in new immigrants to Canada. *American Journal of Public Health*, *103*(4), e96-e104.

Kirmayer, L. J., Narasiah, L., Munoz, M., Rashid, M., Ryder, A. G., Guzder, J., ... & Canadian Collaboration for Immigrant and Refugee Health (CCIRH. (2011). Common mental health problems in immigrants and refugees: general approach in primary care. *Canadian Medical Association Journal*, cmaj-090292.

Kishor, S. (2005). A focus on gender: collected papers on gender using DHS data.

Kitayama, N., Quinn, S., & Bremner, J. D. (2006). Smaller volume of anterior cingulate cortex in abuse-related posttraumatic stress disorder. *Journal of affective disorders*, *90*(2), 171-174.

Koch-Weser, S., Liang, S. L., & Grigg-Saito, D. C. (2006). Self-reported health among Cambodians in Lowell, Massachusetts. Journal of health care for the poor and underserved, 17(2), 133-145.

Koslowski, R. (2014). Selective migration policy models and changing realities of implementation. *International Migration*, *52*(3), 26-39.

Krieger, N. (1990). Racial and gender discrimination: risk factors for high blood pressure?. *Social science & medicine*, *30*(12), 1273-1281.

Krieger, N. (2001a). A glossary for social epidemiology. *Journal of Epidemiology & Community Health*, *55*(10), 693-700.

Krieger, N. (2001b). Theories for social epidemiology in the 21st century: an ecosocial perspective. *International journal of epidemiology*, *30*(4), 668-677.

Krieger, N. (2003). Genders, sexes, and health: what are the connections—and why does it matter?. *International journal of epidemiology*, *32*(4), 652-657.

Krieger, N., & Davey Smith, G. (2004). "Bodies count," and body counts: social epidemiology and embodying inequality. *Epidemiologic reviews*, *26*(1), 92-103.

Krieger, N. (2005). Embodiment: a conceptual glossary for epidemiology. *Journal of Epidemiology & Community Health*, *59*(5), 350-355.

Krieger, N., Chen, J. T., Waterman, P. D., Hartman, C., Stoddard, A. M., Quinn, M. M., ... & Barbeau, E. M. (2008). The inverse hazard law: blood pressure, sexual harassment, racial discrimination, workplace abuse and occupational exposures in US low-income black, white and Latino workers. *Social science & medicine*, *67*(12), 1970-1981.

Krieger, N. (2008). Proximal, distal, and the politics of causation: what's level got to do with it?. *American journal of public health*, *98*(2), 221-230.

Krieger, N. (2011). *Epidemiology and the people's health: theory and context*. Oxford University Press.

Krieger, N. (2012). Methods for the Scientific Study of Discrimination and Health: An Ecosocial Approach. *American Journal Of Public Health*, *102*(5), 936-945.

Krieger, N. (2014). Discrimination and health inequities. *International Journal of Health Services*, *44*(4), 643-710.

Lau, A. S., Tsai, W., Shih, J., Liu, L. L., Hwang, W. C., & Takeuchi, D. T. (2013). The immigrant paradox among Asian American women: are disparities in the burden of depression and anxiety paradoxical or explicable?. *Journal of consulting and clinical psychology*, *81*(5), 901-911

Le Strat, Y., Dubertret, C., & Le Foll, B. (2011). Child marriage in the United States and its association with mental health in women. *Pediatrics*, peds-2011.

Lee, Y. S., & Hadeed, L. (2009). Intimate partner violence among Asian immigrant communities: Health/mental health consequences, help-seeking behaviors, and service utilization. *Trauma, Violence, & Abuse*, *10*(2), 143-170.

Leopold, T. A., Ratcheva, V., & Zahidi, S. (2016). The global gender gap report 2016. In *World Economic Forum*.

Lewis, T. T., Cogburn, C. D., & Williams, D. R. (2015). Self-reported experiences of discrimination and health: scientific advances, ongoing controversies, and emerging issues. *Annual review of clinical psychology*, *11*, 407-440.

Li, L., & Dong, X. (2017). Self-reported Discrimination and Depressive Symptoms Among Older Chinese Adults in Chicago. *Journals of Gerontology Series A: Biomedical Sciences and Medical Sciences, 72*(Suppl1), S119-S124.

Lie, B. (2002). A 3-year follow-up study of psychosocial functioning and general symptoms in settled refugees. Acta Psychiatrica Scandinavica, 106(6), 415-425.

Lim, I. S. (1997). Korean immigrant women's challenge to gender inequality at home: The interplay of economic resources, gender, and family. *Gender & society*, *11*(1), 31-51.

Llacer, A., Zunzunegui, M. V., Del Amo, J., Mazarrasa, L., & Bolůmar, F. (2007). The contribution of a gender perspective to the understanding of migrants' health. *Journal of Epidemiology & Community Health*, *61*(Suppl 2), ii4-ii10.

Logan, T. K., Walker, R., Jordan, C. E., & Leukefeld, C. G. (2006). *Women and victimization: Contributing factors, interventions, and implications*. American Psychological Association.

Lopez-Class, M., Castro, F. G., & Ramirez, A. G. (2011). Conceptions of acculturation: A review and statement of critical issues. *Social science & medicine*, *72*(9), 1555-1562.

Luchenski, S., Quesnel-Vallee, A., & Lynch, J. (2008). Differences between women's and men's socioeconomic inequalities in health: longitudinal analysis of the Canadian population, 1994–2003. *Journal of Epidemiology & Community Health*, *62*(12), 1036-1044.

Lu, Y., Kaushal, N., Denier, N., & Wang, J. S. H. (2017). Health of newly arrived immigrants in Canada and the United States: Differential selection on health. *Health & place*, *48*, 1-10.

Lyon, E., Bradshaw, J., Menard, A. (2011). Meeting Survivor's' Needs Through Non-Residential Domestic Violence Services & Supports: Results of a Multi-State Study,(NCJ Publication # 237328) U.S.Department of Justice. Washington, DC: U.S. Government Printing Office. Retrieved from https://www.ncjrs.gov/pdffiles1/nij/grants/237328.pdf

Mabsout, R. (2011). Capability and health functioning in Ethiopian households. *Social indicators research*, *101*(3), 359-389.

Marmot, M. (2004). Status syndrome. *Significance*, *1*(4), 150-154.

Marmot, M., & Bell, R. (2012). Fair society, healthy lives. *Public health*, *126*, S4-S10.

Marmot, M., & Commission on Social Determinants of Health. (2007). Achieving health equity: from root causes to fair outcomes. *The Lancet*, *370*(9593), 1153-1163.

Marmot, M., & Wilkinson, R. (Eds.). (2005). *Social determinants of health*. OUP Oxford.

Martinez, J. N., Aguayo-Tellez, E., & Rangel-Gonzalez, E. (2015). Explaining the Mexican-American health paradox using selectivity effects. *International Migration Review*, *49*(4), 878-906.

Matanov, A., Giacco, D., Bogic, M., Ajdukovic, D., Franciskovic, T., Galeazzi, G. M., ... & Priebe, S. (2013). Subjective quality of life in war-affected populations. BMC public health, 13(1), 624.

Maximova, K., & Krahn, H. (2010). Health status of refugees settled in Alberta: changes since arrival. Canadian Journal of Public Health/Revue Canadienne de Sante'e Publique, 322-326.
Meadows, L. M., Thurston, W. E., & Melton, C. (2001). Immigrant women's health. *Social science & medicine*, *52*(9), 1451-1458.
Melhado, L. (2011). Sex-Selective Abortions During Past Three Decades May Explain Absence of Millions of Girls in India. *International Perspectives on Sexual and Reproductive Health,37*(3), 162-163.
Mendez-Luck, C. A., & Anthony, K. P. (2015). Marianismo and caregiving role beliefs among US-born and immigrant Mexican women. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *71*(5), 926-935.
Menjívar, C., & Salcido, O. (2002). Immigrant women and domestic violence: Common experiences in different countries. *Gender & society*, *16*(6), 898-920.
Mersky, J. P., Janczewski, C. E., & Nitkowski, J. C. (2018). Poor mental health among low-income women in the US: The roles of adverse childhood and adult experiences. *Social Science & Medicine*, *206*, 14-21.
Min, P. G. (2001, June). Changes in Korean immigrants' gender role and social status, and their marital conflicts. In *Sociological Forum* (Vol. 16, No. 2, pp. 301-320). Kluwer Academic Publishers-Plenum Publishers.
Miyawaki, C. E. (2015). A review of ethnicity, culture, and acculturation among Asian caregivers of older adults (2000-2012). *SAGE open*, *5*(1), 2158244014566365.
Mollica, R. F., McInnes, K., Sarajlić, N., Lavelle, J., Sarajlić, I., & Massagli, M. P. (1999). Disability associated with psychiatric comorbidity and health status in Bosnian refugees living in Croatia. Jama, 282(5), 433-439.
Mollica, R. F., Sarajlić, N., Chernoff, M., Lavelle, J., Vuković, I. S., & Massagli, M. P. (2001). Longitudinal study of psychiatric symptoms, disability, mortality, and emigration among Bosnian refugees. Jama, 286(5), 546-554.
Morey, B. N. (2018). Mechanisms by Which Anti-Immigrant Stigma Exacerbates Racial/Ethnic Health Disparities. *American Journal Of Public Health*, *108*(4), 460-463.
Mossakowski, K. (2003). Coping with Perceived Discrimination: Does Ethnic Identity Protect Mental Health? *Journal of Health and Social Behavior, 44*(3), 318-331.
Moss, N. E. (2002). Gender equity and socioeconomic inequality: a framework for the patterning of women's health. *Social science & medicine*, *54*(5), 649-661.
National Scientific Council on the Developing Child. (2005/2014). Excessive Stress Disrupts the Architecture of the Developing Brain: Working Paper 3. Updated Edition. Retrieved from http://www.developingchild.harvard.edu.
Nasrullah, M., Haqqi, S., & Cummings, K. J. (2009). The epidemiological patterns of honour killing of women in Pakistan. *European Journal of Public Health*, *19*(2), 193-197.
Nemeroff, C. B. (2004). "Neurobiological consequences of childhood trauma." The Journal of clinical psychiatry.
Newbold, B. (2009). The short-term health of Canada's new immigrant arrivals: evidence from LSIC. Ethnicity & health, 14(3), 315-336.
Newman, A. B., & Brach, J. S. (2001). Gender gap in longevity and disability in older persons. *Epidemiologic reviews*, *23*(2), 343-355.

Noble, K. G., Houston, S. M., Brito, N. H., Bartsch, H., Kan, E., Kuperman, J. M., ... & Schork, N. J. (2015). Family income, parental education and brain structure in children and adolescents. *Nature neuroscience*, *18*(5), 773.

Norredam, M., Olsbjerg, M., Petersen, J. H., Bygbjerg, I., & Krasnik, A. (2012). Mortality from infectious diseases among refugees and immigrants compared to native Danes: a historical prospective cohort study. Tropical Medicine & International Health, 17(2), 223-230.

Norredam, M., Agyemang, C., Hansen, H., Oluf, K., Petersen, J. H., Byberg, S., ... & Kunst, A. E. (2014). Duration of residence and disease occurrence among refugees and family reunited immigrants: test of the 'healthy migrant effect'hypothesis. Tropical Medicine & International Health.

Nurius, P. S., Logan-Greene, P., & Green, S. (2012). ACEs within a social disadvantage framework: Distinguishing unique, cumulative, and moderated contributions to adult mental health. *Journal of prevention & intervention in the community*, *40*(4), 278.

Olsen, D. R., Montgomery, E., Bøjholm, S., & Foldspang, A. (2007). Prevalence of pain in the head, back and feet in refugees previously exposed to torture: a ten-year follow-up study. Disability & Rehabilitation, 29(2), 163-171.

Ornelas, I. J., & Perreira, K. M. (2011). The role of migration in the development of depressive symptoms among Latino immigrant parents in the USA. *Social science & medicine*, *73*(8), 1169-1177.

Osypuk, T. L., Bates, L. M., & Acevedo-Garcia, D. (2010). Another Mexican birthweight paradox? The role of residential enclaves and neighborhood poverty in the birthweight of Mexican-origin infants. *Social science & medicine*, *70*(4), 550-560.

Palència, L., Malmusi, D., De Moortel, D., Artazcoz, L., Backhans, M., Vanroelen, C., & Borrell, C. (2014). The influence of gender equality policies on gender inequalities in health in Europe. *Social Science & Medicine*, *117*, 25-33.

Palloni, A., & Arias, E. (2004). Paradox lost: explaining the Hispanic adult mortality advantage. *Demography*, *41*(3), 385-415.

Paradies, Y., Ben, J., Denson, N., Elias, A., Priest, N., Pieterse, A., ... & Gee, G. (2015). Racism as a determinant of health: a systematic review and meta-analysis. *PloS one*, *10*(9), e0138511.

Parrado, E. A., Flippen, C. A., & McQuiston, C. (2005). Migration and relationship power among Mexican women. *Demography*, *42*(2), 347-372.

Pascoe, E. A., & Smart Richman, L. (2009). Perceived discrimination and health: a meta-analytic review. *Psychological bulletin*, *135*(4), 531.

Pedraza, S. (1991). WOMEN AND MIGRATION: The Social Consequences of Gender. *Annual Review Of Sociology*, *17*303-325.

Pittaway, E., & Bartolomei, L. (2001). Refugees, race, and gender: The multiple discrimination against refugee women. *Refuge: Canada's Journal on Refugees*, *19*(6).

Philbin, M. M., Flake, M., Hatzenbuehler, M. L., & Hirsch, J. S. (2018). State-level immigration and immigrant-focused policies as drivers of Latino health disparities in the United States. *Social Science & Medicine*, *199*29-38.

Piwowarczyk, L., Moreno, A., & Grodin, M. (2000). Health care of torture survivors. JAMA, 284(5), 539-541.

Plante, T. G., Simicic, A., Andersen, E. N., & Manuel, G. (2002). Stress and coping among displaced Bosnian refugees: An exploratory study. International Journal of Stress Management, 9(1), 31-41.

Prus, S. G. (2011). Comparing social determinants of self-rated health across the United States and Canada. *Social science & medicine*, *73*(1), 50-59.

Prusty, R. K., & Kumar, A. (2014). Socioeconomic dynamics of gender disparity in childhood immunization in India, 1992–2006. *PLoS One*, *9*(8), e104598.

Pyke, K. D., & Johnson, D. L. (2003). Asian American Women And Racialized Femininities: "Doing" Gender across Cultural Worlds. *Gender & Society*, *17*(1), 33-53.

Raj, A., & Boehmer, U. (2013). Girl child marriage and its association with national rates of HIV, maternal health, and infant mortality across 97 countries. *Violence Against Women*, *19*(4), 536-551.

Raj, A., Saggurti, N., Balaiah, D., & Silverman, J. G. (2009). Prevalence of child marriage and its effect on fertility and fertility-control outcomes of young women in India: a cross-sectional, observational study. *The Lancet*, *373*(9678), 1883-1889.

Raj, A., & Silverman, J. (2002). Violence Against Immigrant Women: The Roles of Culture, Context, and Legal Immigrant Status on Intimate Partner Violence.*Violence against women*, *8*(3), 367-398.

Read, J. N. G., & Reynolds, M. M. (2012). Gender differences in immigrant health: The case of Mexican and Middle Eastern immigrants. *Journal of health and social behavior*, *53*(1), 99-123.

Reisel, D., & Creighton, S. M. (2015). Long term health consequences of Female Genital Mutilation (FGM). *Maturitas*, *80*(1), 48-51.

Reynolds, M. M., Chernenko, A., & Read, J. N. G. (2016). Region of origin diversity in immigrant health: Moving beyond the Mexican case. *Social Science & Medicine*, *166*, 102-109.

Richards, E., Theobald, S., George, A., Kim, J. C., Rudert, C., Jehan, K., & Tolhurst, R. (2013). Going beyond the surface: gendered intra-household bargaining as a social determinant of child health and nutrition in low and middle-income countries. *Social science & medicine*, *95*, 24-33.

Robeyns, I. (2003). Sen's capability approach and gender inequality: selecting relevant capabilities. *Feminist economics*, *9*(2-3), 61-92.

Robjant, K., Hassan, R., & Katona, C. (2009). Mental health implications of detaining asylum seekers: systematic review. The British journal of psychiatry,194(4), 306-312.

Röder, A., & Mühlau, P. (2014). Are they acculturating? Europe's immigrants and gender egalitarianism. *Social Forces*, *92*(3), 899-928.

Rubalcava, L. N., Teruel, G. M., Thomas, D., & Goldman, N. (2008). The healthy migrant effect: new findings from the Mexican Family Life Survey. *American journal of public health*, *98*(1), 78-84.

Rueda, S., Artazcoz, L., & Navarro, V. (2008). Health inequalities among the elderly in western Europe. *Journal of Epidemiology & Community Health*, *62*(6), 492-498.

Ryan, A. M., Gee, G. C., & Laflamme, D. F. (2006). The association between self-reported discrimination, physical health and blood pressure: findings from African

Americans, Black immigrants, and Latino immigrants in New Hampshire. *Journal of health care for the poor and underserved*, *17*(2), 116-132.

Ryff C, Almeida D, Binkley N, Carr D, Coe C, Davidson R. et al. National Survey of Midlife Development in the United States (MIDUS Refresher), 2011–2014. Ann Arbor, MI: Interuniversity Consortium for Political and Social Research; 2016. ICPSR36532-v2

Salant, T., & Lauderdale, D. S. (2003). Measuring culture: a critical review of acculturation and health in Asian immigrant populations. *Social science & medicine*, *57*(1), 71-90.

Salinas, J. J., & Peek, M. K. (2008). Work experience and gender differences in chronic disease risk in older Mexicans. *Annals of epidemiology*, *18*(8), 628-630.

Salvi, V. (2009). Child marriage in India: a tradition with alarming implications. *The Lancet*, *373*(9678), 1826-1827.

Sano, Y., Antabe, R., Atuoye, K. N., Braimah, J. A., Galaa, S. Z., & Luginaah, I. (2018a). Married women's autonomy and post-delivery modern contraceptive use in the Democratic Republic of Congo. *BMC women's health*, *18*(1), 49.

Sano, Y., Sedziafa, A. P., Vercillo, S., Antabe, R., & Luginaah, I. (2018b). Women's household decision-making autonomy and safer sex negotiation in Nigeria: An analysis of the Nigeria Demographic and Health Survey. *AIDS care*, *30*(2), 240-245.

Sen, A. (1987). *Gender and cooperative conflicts* (No. 1342). Helsinki: Wider.

Sen, A. (1990). More than 100 million women are missing. *New York*, 61-66.

Sen, A. (1992). Missing women. BMJ: British Medical Journal, 304(6827), 587.

Sen, A. (2001a). *Development as freedom*. Oxford Paperbacks.

Sen, A. (2001b). The many faces of gender inequality. *New republic*, 35-39.

Sen, A. (2003). Missing Women-Revisited: Reduction In Female Mortality Has Been Counterbalanced By Sex Selective Abortions. *BMJ: British Medical Journal, 327*(7427), 1297-1298

Sen, G., & Östlin, P. (2008). Gender inequity in health: why it exists and how we can change it. Shin, L. M., Shin, P. S., Heckers, S., Krangel, T. S., Macklin, M. L., Orr, S. P., ... & Levering, J. (2004). Hippocampal function in posttraumatic stress disorder. *Hippocampus*, *14*(3), 292-300.*Global Public Health*, *3*1-12.

Shor, E., Roelfs, D., & Vang, Z. M. (2017). The "Hispanic mortality paradox" revisited: Meta-analysis and meta-regression of life-course differentials in Latin American and Caribbean immigrants' mortality. *Social Science & Medicine*, *186*, 20-33.

Singh, G. K., & Hiatt, R. A. (2006). Trends and disparities in socioeconomic and behavioural characteristics, life expectancy, and cause-specific mortality of native-born and foreign-born populations in the United States, 1979–2003. *International journal of epidemiology*, *35*(4), 903-919.

Siddiqi, A., Shahidi, F. V., Ramraj, C., & Williams, D. R. (2017). Associations between race, discrimination and risk for chronic disease in a population-based sample from Canada. *Social Science & Medicine*, *194*, 135-141.

Singh, A. (2012). Gender based within-household inequality in childhood immunization in India: changes over time and across regions. *PloS one*, *7*(4), e35045.

Søndergaard, H. P., Ekblad, S., & Theorell, T. (2001). Self-reported life event patterns and their relation to health among recently resettled Iraqi and Kurdish refugees in Sweden. The Journal of nervous and mental disease, 189(12), 838-845.

Spitzer, D. L. (2005). Engendering health disparities. *Canadian Journal of Public Health/Revue Canadienne de Sante'e Publique*, s78-s96.

Sulaiman-Hill, C. M., & Thompson, S. C. (2012). Afghan and Kurdish refugees, 8–20 years after resettlement, still experience psychological distress and challenges to well being. Australian and New Zealand journal of public health,36(2), 126-134.

Tamblyn, J. M., Calderon, A. J., Combs, S., & O'Brien, M. M. (2011). Patients from abroad becoming patients in everyday practice: torture survivors in primary care. Journal of Immigrant and Minority Health, 13(4), 798-801.

Tolhurst, R., Amekudzi, Y. P., Nyonator, F. K., Squire, S. B., & Theobald, S. (2008). "He will ask why the child gets sick so often": The gendered dynamics of intra-household bargaining over healthcare for children with fever in the Volta Region of Ghana. *Social Science & Medicine*, *66*(5), 1106-1117.

Turra, C. M., & Elo, I. T. (2008). The impact of salmon bias on the Hispanic mortality advantage: New evidence from social security data. *Population research and policy review*, *27*(5), 515.

Ullmann, S. H., Goldman, N., & Massey, D. S. (2011). Healthier before they migrate, less healthy when they return? The health of returned migrants in Mexico. *Social science & medicine*, *73*(3), 421-428.

UNESCO (2013) Education for all. Global Monitoring Report. Fact Sheet. Retrieved from https://en.unesco.org/gem-report/report/2014/teaching-and-learning-achieving-quality-all.

UNESCO (2015). Gender and EFA 2000-2015. Achievements and challenges. Retrieved from http://unesdoc.unesco.org/images/0023/002348/234809E.pdf

UNESCO (2016). Global Education Monitoring Report 2016. Gender review. Creating sustainable futures for all. Retrieved from http://unesdoc.unesco.org/images/0024/002460/246045e.pdf

UNICEF. (2010). *Progress for children: achieving the MDGs with equity* (No. 9). Retrieved from https://www.unicef.org/publications/files/Progress_for_Children-No.9_EN_081710.pdf

Unicef (2014). Ending child marriage: Progress and prospects. Retrieved from https://data.unicef.org/resources/ending-child-marriage-progress-and-prospects/

UNICEF (2016). Female genital mutilation/cutting: a global concern. Retrieved from https://www.unicef.org/media/files/FGMC_2016_brochure_final_UNICEF_SPREAD.pdf.

United Nations Children's Fund, & Gupta, G. R. (2013). Female genital mutilation/cutting: a statistical overview and exploration of the dynamics of change. *Reproductive Health Matters*, 184-190.

United Nations (2017). International Migration Report. Retrieved from https://www.un.org/en/development/desa/population/migration/publications/migrationreport/docs/MigrationReport2017_Highlights.pdf.

United Nations Children's Fund (UNICEF, 2009). The state of the world's children: Maternal and newborn health. Retrieved from http://www.unicef.org/sowc09/

United Nations Population Fund (UNFPA), Marrying Too Young: End Child Marriages, 2012. Retrieved from https://www.unfpa.org/end-child-marriage.

Urquia, M. L., O'Campo, P. J., & Heaman, M. I. (2012). Revisiting the immigrant paradox in reproductive health: the roles of duration of residence and ethnicity. *Social science & medicine*, *74*(10), 1610-1621.

USAID (2005) A Focus on Gender: Collected Papers on Gender Using DHS Data. Retrieved from https://dhsprogram.com/publications/publication-od32-other-documents.cfm

USAID (2018). Health and Demographic Surveys. https://dhsprogram.com/What-We-Do/Survey-Types/DHS.cfm

U.S Census (2010). The Foreign-Born Population of the United States. Retrieved from https://www.census.gov/newsroom/pdf/cspan_fb_slides.pdf

Van der Kolk, B. (2014). *The body keeps the score*. New York: Viking.

Van Dyke, M. E., Vaccarino, V., Quyyumi, A. A., & Lewis, T. T. (2016). Socioeconomic status discrimination is associated with poor sleep in African-Americans, but not Whites. *Social Science & Medicine*, *153*, 141-147.

Venkatapuram, S., & Marmot, M. (2009). Epidemiology and social justice in light of social determinants of health research. *Bioethics*, *23*(2), 79-89.

Viruell-Fuentes, E. A. (2007). Beyond acculturation: immigration, discrimination, and health research among Mexicans in the United States. *Social science & medicine*, *65*(7), 1524-1535.

Vlassoff, C. (2007). Gender differences in determinants and consequences of health and illness. *Journal of health, population, and nutrition*, *25*(1), 47.

Vu, A., Adam, A., Wirtz, A., Pham, K., Rubenstein, L., Glass, N., ... & Singh, S. (2014). The prevalence of sexual violence among female refugees in complex humanitarian emergencies: a systematic review and meta-analysis. *PLoS currents*, *6*.

Watts, C., & Zimmerman, C. (2002). Violence against women: global scope and magnitude. *The lancet*, *359*(9313), 1232-1237.

Weden, M. M., Miles, J. V., Friedman, E., Escarce, J. J., Peterson, C., Langa, K. M., & Shih, R. A. (2017). The Hispanic Paradox: Race/Ethnicity and Nativity, Immigrant Enclave Residence and Cognitive Impairment Among Older US Adults. *Journal Of The American Geriatrics Society*, *65*(5), 1085-1091.

Williams, D. R., & Mohammed, S. A. (2009). Discrimination and racial disparities in health: evidence and needed research. *Journal of behavioral medicine*, *32*(1), 20-47.

Williams, D. R., & Mohammed, S. A. (2013). Racism and health I: Pathways and scientific evidence. *American Behavioral Scientist*, *57*(8), 1152-1173.

Williams, A. C. D. C., Peña, C. R., & Rice, A. S. (2010). Persistent pain in survivors of torture: a cohort study. Journal of pain and symptom management,40(5), 715-722.

Women, U.N. (2015). Progress of the World' s Women 2015-2016: Transforming Economies, Realizing Rights (No. id: 7688). Retrieved from http://progress.unwomen.org/en/2015/pdf/UNW_progressreport.pdf

World Bank (2012). World Development Report 2012: Gender Equality and Development. Retrieved from https://openknowledge.worldbank.org/handle/10986/4391.

World Bank (2014). Voice and Agency: Empowering Women and Girls for Shared Prosperity. Retrieved from https://openknowledge.worldbank.org/handle/10986/19036.

World Health Organization. (2004). The global burden of disease: 2004 update. Retrieved from https://www.who.int/healthinfo/global_burden_disease/GBD_report_2004update_full.pdf?ua=1

World Health Organization. (2005). WHO multi-country study on women's health and domestic violence against women: summary report of initial results on prevalence, health outcomes and women's responses. Retrieved from http://www.who.int/reproductivehealth/publications/violence/24159358X/en/

World Health Organization. (2009). Women and health: today's evidence tomorrow's agenda. Retrieved from http://www.who.int/gender-equity-rights/knowledge/9789241563857/en/.

World Health Organization. (2011). Global status report on noncommunicable diseases 2010. Retrieved from https://www.who.int/nmh/publications/ncd_report2010/en/.

World Health Organization (WHO) & Pan American Health Organization. (2012). Understanding and addressing violence against women: Intimate partner violence (Paper No. WHO/RHR/12.36), Retrieved from https://apps.who.int/iris/handle/10665/77432.

World Health Organization. (2015). Health in 2015: from MDGs to SDGs. Retrieved from https://www.who.int/gho/publications/mdgs-sdgs/en/.

World Health Organization. (2016). World Health Statistics: monitoring health for the SDGs, sustainable development goals. Retrieved from http://www.who.int/gho/publications/world_health_statistics/2016/en/

Wyatt, S. B., Williams, D. R., Calvin, R., Henderson, F. C., Walker, E. R., & Winters, K. (2003). Racism and cardiovascular disease in African Americans. *The American Journal Of The Medical Sciences*, *325*(6), 315-331.

Young, M. E. D. T., & Pebley, A. R. (2017). Legal Status, Time in the USA, and the Well-Being of Latinos in Los Angeles. *Journal of Urban Health*, *94*(6), 764-775.

Zhu, W. X., Lu, L., & Hesketh, T. (2009). China's excess males, sex selective abortion, and one child policy: analysis of data from 2005 national intercensus survey. *Bmj*, *338*, b1211.

Zimmerman, C., Kiss, L., & Hossain, M. (2011). Migration and health: a framework for 21st century policymaking. *PLoS medicine*, *8*(5), e1001034.

Chapter 2- Paper 1 "A long journey of inequality across borders: understanding the role of intra-household gender inequality and perceived discrimination on the mental health of immigrant women"

Introduction

A large number of studies show that women experience affective and mood disorders such as depression, anxiety or PTSD to a greater degree than men (Kessler et al., 2005; 2012; McLean et al., 2011) and that the gender gap, relative to women's mental health, is not fully understood (Li & Graham, 2017; Riecher-Rössler, 2017). The differences between men and women extend to the different risk factors, symptomatology and course of disorders (Howard et al., 2017; Kuehner, 2017; McLean et al., 2011; Riecher-Rössler, 2017) and this gender pattern is found in nearly all nations across the world (Seedat et al., 2009), including high income countries (Boyd et al., 2015; Kessler, 2007). The same patterns have been observed among Latino and Asian immigrants (Masood, Okazaki & Takeuchi, 2009; Menselson, Rehkopf & Kubzansky, 2008; Takeuchi et al., 2007) with the caveat that Hispanics have lower rates of psychiatric disorders including depression and anxiety (Alegria et al., 2008; Breslau et al, 2006), and immigrants exposed to trauma have higher rates and more severe symptoms (Fazel, Wheeler, & Danesh, 2005; Haroz et al., 2017; Hollifield et al., 2002; Kirmayer et al., 2011; Lindert et al., 2009; Slewa-Younan et al., 2015; Steel et al., 2006). Several studies explore the role of perceived interpersonal discrimination in the development of mental disorders among immigrants and find supporting evidence that discrimination plays an important role in the onset and severity of various mental disorders including depression, anxiety and PTSD (Ayón, Marsiglia &

Bermudez-Parsai, 2010; Chou, Asnaani & Hofmann, 2012; Gee et al., 2009; Kucharska, 2017; Paradies et al., 2015; Parscoe & Richman et al., 2009).

This present paper uses a gender lens and explores the potential impact of two forms of unfair treatments on Latino and Asian immigrant women's' mental health and uses data from the National Latino and Asian American Study (NLAAS), the largest national representative study of Latino and Asian immigrants to the U.S. The specific aims of this paper are to explore the joint effect of intra household gender inequality and perceived discrimination in the development of depression and posttraumatic stress disorder. The paper has eco-social theory as a guiding theoretical framework, a theory that posits that human beings embody their lived inequalities in ill health across their lives, across generations and in a historical context. The literature suggests negative mental health consequences associated with experiencing various aspects of intra-household gender inequality. Research also has examined the cumulative experiences of unfair treatment coupled with multiple statuses of disadvantage and social identities.

Discrimination and mental health

Empirical research has found evidence that when people experience interpersonal discrimination ascribed to various attributes such as a person's race, national origin, ancestry, gender, age, language, physical appearance or social class, it is detrimental to their mental and physical health (Abdulrahim et al., 2012; Ahmed, Mohammed & Williams, 2007; Gee at al., 2006; Kim & Noh, 2014; Krieger, 1990; 1999; Lewis, Cogburn & Williams, 2015; Moradi, & Risco, 2006; Ong et al., 2017; Paradies, 2006; Paradies et al., 2015; Parscoe & Richman, 2009; Robinson, Sutin & Daly, 2017; Schmitt et al., 2014;

Schwartz, 2017; Stepanikova, Bateman & Oates, 2017; Sutin, Stephan & Terracciano, 2015; Umaña-Taylor & Updegraff, 2007; Williams & Mohammed, 2009; Williams, Neighbors & Jackson, 2003).

Numerous studies document that immigrants experience various forms of interpersonal discrimination after migration to the United States and other industrialized nations (Arellano-Morales et al., 2015; Barry & Grilo, 2003; Gee et al., 2006; Gee et al., 2009; Krieger, 2012; Rousseau et al., 2011; Zainiddinov, 2016; Viruell-Fuentes, 2007). For example, in the United States, the National Latino and Asian American Study found that 30% of Latinos report experiencing everyday discrimination (Pérez, Fortuna & Alegria, 2008). Among Latino ethnic subgroups, Mexicans, second generation, younger and more educated immigrants reported higher levels of perceived everyday discrimination and women slightly less than men (Pérez, Fortuna & Alegria, 2008). Asian immigrants showed similar rates of discrimination with 32.9% reporting moderate or high levels of unfair treatment and 23.9% racial/ethnic discrimination (Chae et al., 2008) and the highest prevalence (61%) was reported among Chinese immigrants (Gee et al., 2009). Other studies that focused exclusively on the experiences of women and used data from the Women's Health Across the Nation study (SWAN), a community based, longitudinal survey (1996-2008) found that 73.4% of Chinese and 39.3% of Hispanic women reported experiencing chronic racial discrimination, reported over various points in time (Peterson et al., 2016).

Studies that explored the experiences of first and second generation Asian Americans and Latino immigrants in the United States found empirical support that showed that experiencing unfair treatment attributed to persons' race, ethnic origin or ancestry or even perceiving racism directed towards their ethnic group across society are harmful to

immigrant's physical (Williams & Mohammed, 2009) and mental health (Chou, Asnaani & Hofmann, 2012; Colen et al., 2018; Dong, Chen & Simon, 2014; Gee 2002; Gee et al., 2007; 2009; Gee & Ponce, 2010; Paradies et al., 2015; Parscoe & Richman, 2009). These studies showed that discrimination is associated with various mental health disorders including depression (Finch, Kolody & Vega, 2000; Li & Dong, 2017; Mossakowski, 2007; Chae & Yoshikawa, 2008), anxiety (Alamilla, Kim & Lam, 2010; Gee et al., 2007; Huynh, Devos & Dunbar, 2012; Moradi & Hasan, 2004), PTSD (Loo et al., 2001; Loo, Fairbank, & Chemtob, 2005; Yip, Gee, & Takeuchi, 2008), mental illness symptomatology such as psychotic experiences (Karlsen & Nazroo, 2002; Oh et al., 2014), suicidal ideation (Hwang & Goto, 2008), risk of psychosis (Karlsen et al., 2005), and other mental health outcomes like psychological distress (Abdulrahim et al., 2012; Gee, 2002; Moradi & Risco, 2006; Syed & Juan, 2012; Torres, Driscoll & Voell, 2012), lower sense of coherence (Lam, 2007), lower self-esteem (Armenta & Hunt, 2009; Lee 2005), negative affect (Yoo & Lee, 2008) and perceived quality of life and well-being (Huynh & Fuligni, 2010; Lee, 2003; Ryff, Keyes & Hughes, 2003).

Intra-household gender inequality

Intra-household gender inequality, a form of discrimination experienced by women across the world, can be defined as an unfair and unkind treatment and as an important constraint on women's agency (Griffin et al., 2002; Hausmann et al., 2012; Jayachandran, 2015; Klugman et al., 2014; Moss, 2002; Staland-Nyman, Alexanderson, & Hensing, 2008; USAID, 2018; Women, U. N. 2015; WHO 2005, 2009). Inequality in private life is more pronounced in low and middle-income countries and it is a major concern affecting

women's lives, health and wellbeing (United Nations 2015). An important body of empirical research and sociological scholarship focuses on understanding post-migration factors that shape the health of immigrant and refugee women. Among these efforts some studies focus on inequality in women's private life and have considered whether or not gender roles are redefined or rewritten in the new country after migration and how it could potentially affect the physical and mental health of women (Llacer et al., 2007; Roden & Mulhau, 2014). Studies have shown that generally attitudes toward gender roles tend to change slowly even in highly developed, industrialized countries (Alwin, Braun, & Scott. 1992; Brooks & Bolzendahl, 2004; Cotter, Hermsen & Vanneman, 2011). Studies exploring the lives of immigrant women have shown that traditional views about gender roles from the country of origin are relatively stable among first and even second generation immigrants and continue to influence their lives even after migration to more gender equal, industrialized countries (Blau et al., 2013; Frank & Hou, 2015; Liacer et al., 2007; Röder & Mühlau, 2014; Stempel et al., 2016). Among the traditional gender roles that are potentially reproduced after migration is intra household behavior that continues to maintain inequality between partners in their private lives. For example, Asian and Latino immigrant women carry the large burden of unpaid work for household responsibilities (Gurrieri, 2005; Lim, 1997) and caregiving for children and ill family members (John, Resendiz, & De Vargas, 1997; Mendez-Luck & Anthony, 2015; Miyawaki, 2015). Further, the women continue to live in patriarchal relationships that can affect the power in a variety of domains in their private lives (Parrado, Flippen, & McQuiston, 2005; Pyke & Johnson, 2003). They also are likely to be victims of physical and emotional abuse perpetrated by their intimate partners (Amanor-Boadu et al., 2012;

Gonçalves & Matos, 2016; Hazen & Soriano, 2007; Lyon, Bradshaw & Menard, 2011) and to potentially experience abuse related to their immigration status – particularly for those who are undocumented or have a dependent visa status (Bent-Goodley, 2007; Davis, 2004; Moynihan, Gaboury & Onken, 2008; Raj & Silverman, 2002).

Intra-household gender inequality, as a pervasive exposure to threat and subordinate status: domestic violence, access to decision making and perceived excessive demands

In this section the three aspects of gender inequality that are measured and compared in this paper, derived from a large body of literature embedded in eco-social theory, are discussed. These aspects are *interpersonal violence perpetrated by partners, perceived excessive demands from partner or spouse and access to decision-making.* All three of these aspects of inequality or partner violence may have begun pre-migration but continue during migration and into the post-migration phase. Numerous studies found that experiencing intimate partner physical violence is associated with poor physical and mental health outcomes (Campbell, 2002: Coker et al.2000a; Ellsberg et al., 2008; Garcia-Moreno et al., 2015; Logan et al., 2006; Oram, Khalifeh & Howard, 2017; Smith & Gittelman, 1994; WHO, 2005). The most prevalent mental health consequences are depressive symptoms, depressive disorders and posttraumatic stress (Campbell, 2002; Devries et al., 2013). Other mental health consequences are anxiety, insomnia, social dysfunction, suicide tendencies and attempts, distress, personality disorders (Campbell, 2002; Devries et al., 2013; Ellsberg et al., 2008), eating disorders and substance abuse and dependence (Campbell, 2002; Golding, 1999). Studies have also found that women that are diagnosed with such mental disorders as depression, anxiety, OCD, PTSD, eating disorders and

personality disorders are more likely to experience lifetime and past year IPV (Devries et al., 2013). Further, chronicity and the concomitance of physical violence with other forms of violence and abuse like sexual or psychological violence are also found to increase the likelihood of mental health consequences, increased severity and also comorbidity (Jones, Hughes & Unterstaller, 2001; Pico-Alfonso et al., 2006; Stein & Kennedy, 2001). IPV can simultaneously be experienced with other present stressors such as poverty, partner substance abuse (Coker et al., 2000b), partners' mental health problems and housing and food insecurity (Mersky, Janczewski & Nitkowski, 2018).

Experiencing physical violence and interpersonal discrimination along with other adult adverse experiences like financial strain, homelessness and partner emotional abuse, alcohol and incarceration are found to mediate child adversity on adult mental health problems including depression, anxiety and PTSD (Mersky, Janczewski & Nitkowski, 2018). Furthermore, interpersonal physical and sexual violence appears to contribute to symptom severity among women with complex PTSD who have also been victims of childhood abuse (Cloitre et al., 2009). Unequal gender norms including women's acceptance of violence and entitlement over women are among the risk factors of IPV (WHO, 2005; 2018) and the severity and duration of abuse and previous trauma, including childhood abuse, are risk factors that may exacerbate depressive symptoms and PTSD (Campbell, 2002; Golding, 1999; Satyanarayana, Chandra, & Vaddiparti, 2015). In the United States, studies based on national surveys find similar rates of victimization and prevalence of mental health problems as consequences associated with experiencing IPV among racial and ethnic groups including immigrant women (Logan et al., 2006). Although, potentially experiencing similar prevalence rates, immigrant and refugee women

face more barriers in asking for protection for themselves and their children (Lyon et al., 2011) and in accessing medical help. Abusers may control them due to their immigration status and their struggles for obtaining legal residency and in gaining legal protection like protective orders (Moynihan, Gaboury & Onken, 2008).

Limited English proficiency is also a barrier for immigrant women trying to access legal support in courts at all levels (Ammar et al., 2012) and prior exposure to trauma and posttraumatic symptomatology is another barrier for testifying in court (Dutton et al., 2006). More importantly, high exposure to violence and trauma prior to migration and throughout the migration process are risk factors for victimization, exacerbation of health and mental health consequences and of the social and economic integration post-migration. Immigrant women from developing countries have a high likelihood of exposure to various forms of violence prior to migration, including childhood physical and sexual abuse (Bogic, Njoku & Priebe, 2015; Garcia-Moreno et al., 2015; Myers et al., 2015), a known risk factor for later victimization (Fazel et al., 2018, Logan et al., 2006), child marriages (UNICEF, 2014), female genital mutilation (UN Children's Fund & Gupta, 2013), human trafficking (Zimmerman, Kiss & Hossain, 2011) and unsafe sexual practices (Garcia-Moreno et al., 2015). Refugee women's prior exposure to trauma can also include experiencing sexual violence as a war weapon (Garcia-Moreno et al., 2015), torture in home countries (Amnesty International, 2014; Holtan, et al., 2002), detention in asylum (Kalt, et al., 2013; Robjant, Hassan, & Katona, 2009) and exposure to war and conflict resulting in various mental health conditions like PTSD, depression and anxiety (Fazel, Wheeler & Danesh, 2005) and high comorbidity of mental and physical health conditions (Hermansson, Timpka & Thyberg, 2002 ; Steel et al., 2009).

Gender roles also extend to women's ability to make autonomous or joint decisions with partners (Osamor & Grady, 2018). Empirical studies support that women's intrahousehold decision making power is context specific and that it can manifest as another form of power inequality within the household. Further, numerous studies from low and middle income countries have shown that woman's ability to make decisions or at least to cooperate with their partner in decision-making is associated with various health outcomes, health related behaviors and well-being (Klugman et al., 2014; Parrado, Flippen & McQuiston, 2005; USAID, 2018). For examples, studies found better physical health outcomes (Jatrana & Pasupuleti, 2015; Kishor, 2005; Klugman et al., 2014; Mabsout, 2011), better nutrition (Kishor, 2005), higher use of health services (Ameyaw et al., 2016; Beegle, Frankenberg & Thomas, 2001; Ganle et al., 2015) and health awareness (Viens, Clouston & Messina, 2016). Gender inequality also extends to the division of household labor which is unpaid work. According to the Global Gender Gap Report women bear most of the burden of unpaid work and in virtually all countries in the world and women work longer hours than men in both paid and unpaid work (Bird, 1999; Harryson, Novo & Hammarström, 2010; Harryson, Strandh & Hammarström, 2012; Leopold, Ratcheva & Zahidi, 2016). Studies using cross-national data found task sex-segregation among partners where women provide more time-inflexible housework tasks that are perceived to be more unfair and to affect their health (Eek &Axmon, 2015; Frisco & Wiliams, 2003; Hook, 2010) and that egalitarian gender ideology and women's labor force participation are associated with more sharing among partners (Bittman et al., 2003; Fuwa, 2004).

Multiple forms of discrimination and mental health

Epidemiologic and sociological scholarship and research suggests that health and health disparity must note that individuals can simultaneously occupy multiple disadvantaged statuses. Intersectionality theory posits that the simultaneous experiences of various forms of oppression like sexism, classism, racism, ageism create a unique space in which individuals' lives and experiences happen at an intersection that interlocks these identities (Davis, 2008; Green, Evans & Subramanian, 2017; Richardson & Brown, 2016; Williams et al., 2012). However, it is challenging capture the complexities of these experiences and the heterogeneity within categories, particularly in quantitative research (Asad & Clair, 2018; Bose, 2012; Bowleg, 2008; Bastia, 2014; Evans et al., 2018; Ferre, 2015; Lutz, 2015; Seng et al, 2012). Later empirical studies and scholarship added citizenship and immigration status to help conceptualize the life experiences of immigrants and the "historical construction of subordinate inclusion" (Bose, 2012; Ferre, 2015). Examples of constructed spaces of inclusion and of intersecting disadvantaged social identities in the lives of immigrants are racialized legal status (Asad & Clair, 2018), structural vulnerability (Quesada, Hart & Bourgois, 2011), and the gendered experience of refugee status (Pittaway & Bartolomei, 2001). The present study attempts to understand the health consequences of experiencing two forms of unfair treatment respectively interpersonal discrimination and intra household gender inequality among first- and second-generation immigrant women.

Previous empirical studies of the cumulative effects of discrimination across domains, attribution and time could help guide the understanding of the potential impact of intra household gender inequality on health as an additional, potentially chronic form of

experienced unfair treatment. Most research studies on perceived discrimination are focused on the effect of one attribute at a time, for example of racial/ ethnic, gender, ancestry or age discrimination (Dolezsar et al., 2014; Paradies et al., 2015; Parscoe & Richman, 2009; Schmitt et al., 2014; Williams & Mohammed, 2009). Although limited, research that explored the potential consequence on health of the cumulative effects of experiencing interpersonal discrimination associated with multiple statuses of disadvantage found that individuals that hold more devalued status experience more forms of discrimination and more often (Carr et al., 2014; Evans et al., 2018; Grollman, 2012; 2014).

The cumulative effects of unfair treatment that is itself a consequence of multiple disadvantaged statuses, are embodied as ill health across the lifespan. Starting at early ages, youth who simultaneously occupy more socially devalued, disadvantaged statuses experience more forms and frequencies of discrimination (Grollman (2012). A study found that the accumulation of more exposure and more forms of discrimination attributed to their gender, sexual identity, race or social class is associated with self-reported physical health problems and depressive symptoms and that there is a dose response relationship between more forms of discrimination experienced simultaneously and increased symptoms of depression and worst physical health (Grollman (2012). Studies with adults also found that multiply disadvantaged individuals experience more frequent discrimination and more forms of discrimination corresponding to their devalued statuses (Grollman, 2014). Similarly, more forms of discrimination and more chronic exposures are associated, in a dose-response fashion with negative health outcomes such as activity

limitations, depression, and psychological distress (Grollman, 2014), poor physical health (Grollman, 2014; Cormack, Stanley & Harris, 2018)

Studies also found that the context of the effects of discrimination is also important. In the presence of more forms and more frequent discrimination experiences and the same dose-response to physical and mental health consequences, some forms of discrimination can have different strengths in the association with health outcomes. For example, racial discrimination seems to have a weaker association with physical health among indigenous people in New Zealand (Cormack, Stanley & Harris, 2018) and with depression among HIV positive Black men who also experience discrimination based on their HIV status and sexual orientation (Bogart et al., 2013; Cormack, Stanley & Harris, 2018) or on the opposite, to overpower gendered racism and sexual objectification among low-income African-American women (Carr et al., 2014). Chronic exposure to unfair treatment over time and to multiple forms attributed to different disadvantages has also been found to be detrimental to mental health (Wallace, Nazroo & Bécares, 2016). In this line of research, longitudinal studies support that experiencing major discrimination events that are attributed to various disadvantage statuses increase the risk for depression even years after exposure independent of other chronic stressors and also support similar dose-response relationship as found in cross-sectional studies (Gayman & Barragan, 2013; Wallace, Nazroo & Bécares, 2016). For example, a study from Britain showed that accumulation of discrimination attributed to devalued statuses like nationality, disability, language and accent, sex, age and sexual orientation, over time translates, in a dose-response fashion in more psychological distress (Wallace, Nazroo & Bécares, 2016). These results also suggest how potentially vigilance and fear of being treated unfairly as previously experienced over

the life course can play a role in the development of negative health outcomes (Wallace, Nazroo & Bécares, 2016).

Studies exploring the cumulative effects of various forms of discrimination among women showed similar results. Multiple marginalized minority statuses such as sexual orientation and HIV status are associated with simultaneously experiencing more forms of discrimination like sexism, racism, heterosexist experiences, HIV related- stigma and gender discrimination and are associated with mental health outcomes including psychological distress and depression (DeBlaere et al., 2013; Logie at al., 2013). Further, exposure to more forms of discrimination corresponding to more devalued statuses and higher burden is associated with lower quality of life and symptoms of PTSD (Seng et al., 2012).

Empirical research also shows that the cumulative effects of gender discrimination from society or family among women exposed to various forms of trauma are associated with internalizing disorders, substance abuse and psychoticism (Kuchaska et al., 2017). Studies among refugee and immigrant women are limited. Bechares and Zhang (2017) analyzed how cumulative effect of experiences of discrimination across different domains, to various attributes and across time affect the mental health of women in the US. In the study, African American and Chinese women experienced the highest levels of discrimination across different domains, to various attributes and across time. The study used data from the 10 waves of the Study of Women's Health Across the Nation (SWAN), (1996-2008) and found supporting evidence for a dose-response relationship and also for the cumulative effect of length of time of exposure, type of perceived unfair treatment like being treated with less courtesy, being ignored or getting poorer services then others and

attribution. Women who reported experiencing unfair treatment over longer periods of time, manifested in different domains and attributed to different marginalized identities like race, physical appearance, gender, age, language or income level, had a higher risk for being diagnosed with depression (Bécares & Zhang, 2017).

These studies suggest that holding more than one devalued, subordinate status translates into an accumulation of experiences of unfair treatments that, in turn translates into a health disadvantage. Studies regarding the mental health consequences of experiencing simultaneously multiple forms of disadvantage and discrimination among immigrant women are very limited. Further, no studies have explored the potential joint effect of two unfair and unkind treatments: post-migration interpersonal discrimination based on different attributes such as gender, age, race, ancestry, national origin and skin color and intra-household gender inequality. This study will fill this gap using the eco-social theory to capture the role of experiencing discrimination in interpersonal interactions in society and of inequality in their private life expressed as domestic violence, access to decision making and perceived excessive demands from a partner or a spouse. These variables reflect the lived experience of inequality and discrimination in their private life and can potentially help capture how immigrant women embody inequality in ill health considering that women tend to deny experiences of discrimination (Kessler et al., 1999) and to internalize oppression (Conde & Gorman, 2009).

Eco-social theory as a way of explaining two threatening, subordinate statuses

The eco-social theory posits that human beings embody the world that they live in through multiple pathways throughout their lives (Krieger 2001, 2004, 2011). Human

beings are living and evolving as both biological organisms and as members of society and their lives, lived inequalities and traumatic experiences become ingrained in their biology. Their bodies will remember and will tell their life stories expressed ill health (Krieger, 2001, 2011). The eco-social theory can help in conceptualizing various pathways through which immigrant women come to embody the world, as both biological and social beings and throughout their travel across borders of nations' states and across their lifespan (Acevedo-Garcia et al., 2012; Acevedo-Garcia & Almeida, 2012; Zimmerman, Kiss & Hossain, 2011). The theory suggests that if women experience constraints such as discrimination and intra-household gender inequality, the acquisition of both will manifest in ill health (Krieger, 2004, 2005, 2011).

Method

Sample

This paper uses data from the National Latino and Asian American Survey (NLAAS). The NLAAS is a nationally representative survey of Latino and Asian Americans, one of the three studies from the 2001-2003 Collaborative Psychiatric Epidemiology Surveys (CPES) along with the National Comorbidity Survey Replication (NCS-R) and the National Survey of American Life (NSAL)(Heeringa et al, 2004). NLAAS was funded by the National Institute of Mental Health and data was collected by the University of Michigan Survey Research Center between May 2002 and November 2003 (Alegria et al., 200; Heeringa et al, 2004). This study is the first and most comprehensive survey of Latino and Asians in the U.S. and offers nationally representative epidemiological data regarding the distribution of lifetime and 12 months' prevalence of mental disorders, disability associated with mental illness and rates of health service

utilization (Heeringa et al, 2004). The survey is based on a probability sample design based on nationally representative households and also oversampled geographic areas with higher density of the ethnic groups of interest. The supplemental sample targeted five groups with low prevalence respectively Puerto Rican, Cuban, Chinese, Filipino and Vietnamese (Heeringa et al, 2004). To be eligible for the study participants needed to be 18 years or older, living in non-institutionalized population from the United States and Hawaii and to be of Latino, Spanish or Asian descent. Data were collected with face to face interviews from the eligible participants. The NLAAS was administered in English and also in Spanish for Latinos and Chinese, Tagalog, Vietnamese for Asian Americans by trained, bilingual interviewers for first generation immigrants who did not speak English. The final weighted response rate for the NLAAS was 73.2 % (75.5% for the Latino sample and 65.5% for Asian sample) and the final sample consisted 2,554 Latino and 2,095 Asian Americans.

Measures

The two dependent variables in this study are PTSD and a major depressive episode in the past 12 months. The mental health status was determined using the World Health Organization Composite International Diagnostic Interview (CIDI). The CIDI is a cross-cultural epidemiology protocol that is used by lay, trained interviewers and the responses are used to identify individuals that meet criteria for a mental disorder based on the Statistical Manual of Mental Disorders (DSM-IV). The two binary outcomes of this study are if the person endorsed threshold symptoms for PTSD and a major depressive episode in the past 12 months. Independent variables: Perceived discrimination was measured using the Everyday Discrimination Scale (EDS) from the Detroit Area Study Questionnaire (Williams et at, 1997). Previous studies using this scale found good psychometric

properties (Assari & Caldwell, 2018; Jang et al., 2010). The scale was also validated for different ethnic and racial groups such as African Americans (Barnes et al., 2004; Hope et al., 2017) and Asians and Latino (Kim, Sellbom & Ford, 2014). The scale has 9 items representing unfair experiences such as being treated with less courtesy than other people, treated with less respect than other people, receiving poorer service than other people at restaurants and stores, people acting as if the person is not smart or it is dishonest or being threatened or harassed. Respondents are asked to appraise the frequency of the experienced unfair treatment in their day to day lives, with 6 response categories respectively 1=almost every day, 2= at least once a week, 3=a few times a month, 4= a few times a year, 5= less than once a year and 6= never. The items were reverse coded and the possible scores on the scale is 9 to 45, with higher scores representing greater perceived discrimination. Respondents were also asked to indicate the possible reason of the perceived unfair treatment and were given a list of possible attributes that included ancestry, national origin, race, gender, age, skin color, height and weight, sexual orientation, income and education. The Cronbach alpha for the overall NLAAS sample was 0.87 and for the sample of married or cohabiting women that were included in this study was 0.89 for Latino and 0.90 for Asian women. Household inequality: No decision-making ability within the relationship was derived from the questions: "When it comes to making major decisions, who has the final say – you or your (spouse/partner)? "The options given were respondent, both/it varies and spouse/partner only. The categories respondent alone and shared decisions were collapsed so the final categories were no access to decision making for one category and the second category was decision making ability of respondent or shared decision making with partner or spouse. Experiences of interpersonal

violence were measured with the following question: “Over the course of your relationship, how often has your (spouse/partner) ever done any of these things?” The response options were often, sometimes, rarely and never. Women were giving two lists of violent acts, one with very severe violent acts that included being kicked, bit or hit with a fist, beat up, choked, burned or scalded, threatened with a knife or gun and one with less severe, more moderate acts of violence, that included being pushed, grabbed or showed, threw something, slapped, or hit. The interpersonal violence variable was created by collapsing ‘often’ and ‘sometimes’ responses for both variables. The final variable had two categories respectively, only experiences of moderate form of violence and experiences of both moderate and severe forms of violence. The last household inequality variable was perceived excessive demands from spouse or partner and was derived from the question: “How often does your (spouse/partner) make too many demands on you – often, sometimes, rarely, or never?”. The four possible categories were often and sometimes, rarely, and never. The two categories often and sometimes were collapsed into one category that represented perceived excessive demands from spouse or partner. Covariates: The two analyses were adjusted for demographic covariates: age, education, poverty and work status, racial/ethnic group and generation status. Age was measured in years and educational attainment had four categories: 0-11 years, 12 years, 13-15 years and greater than or equal to 16. Race/ethnicity comprised of two groups Latino and Asians and generation status represented being born abroad or in the U.S. Work status had two categories employed or unemployed or not in labor force and poverty status was determined considering income to poverty ratio.

Analytic strategy

The complex sample module of SPSS 24 was used for the all analysis to accommodate the complex sample weighted data of the NLAAS. Descriptive and bivariate statistics (t test and chi square) were used to describe the sample and two logistic regression models to evaluate the association between perceived discrimination and intrahousehold inequality and PTSD and depression.

Results

The demographic characteristics of the study participants are presented in Table 3.1. The analytic sample included 1520 Latino and Asian women. The mean age of women was 41 and their age ranged from 18 to 97. Among these women, 70.9% were foreign born, first generation immigrants, 44 % Asians (Vietnamese, Filipino, Chinese and other Asians) and 56% Latino (Mexicans, Cuban, Puerto Ricans and other Hispanics). More than half of women in the sample, 55% were employed and 29% had less than a high school education. Among respondents, 2.6% (SE: 0.1) met the criteria for PTSD in the past 12 months and 7.9 % (SE: 0.2) had a major depressive episode in the past year.

One third of women reported no instances of discrimination. Among women that reported any instances of perceived interpersonal discrimination, there were no statistically significant mean levels between the two racial groups. U.S. born women reported statistically significant higher mean levels of perceived discrimination ($M=10.72$, $p<0.001$). Also, within each racial group, second generation women perceived significantly higher mean levels of discrimination Approximately one third (27.8% SE:0.5) of women from the study reported that they do not have access to major decisions and only men have the final say in their family. There were no statistically significant differences between

Latino and Asian women and between generations within the two racial groups. In the sample, 24.5% of women reported to perceive that often or sometimes their spouse or partner makes too many demands on them. There were no statistically significant differences between the two racial groups and between the first- and second-generation immigrant women. In the sample, 3.3 % (SE: 0.1) of women experienced severe forms of violent treatment from spouse or partner at least at one instance over the course of their relationship such as beaten up, choked, burned or scalded or threatened with a knife or gun. A larger percent, 11.2 % (SE; 0.3) reported to have experienced more moderate forms of violent acts like being pushed, grabbed or showed, threw something, slapped or hit. Table 2.2 shows that at bivariate level perceived discrimination was significantly associated with depression (OR=1.050, p <0.001). Model 2 added the household inequality variables, adjusted for covariates and considered the joint effect of experiences of chronic, everyday discrimination and inequality in their homes. The analysis showed that experiencing unfair treatment in interpersonal interactions was also a significant predictor of depression in the multivariate analysis (OR=1.064, p <0.001), such that higher levels of perceived interpersonal discrimination were associated with a higher likelihood of experiencing a major depressive episode in the past year. Two of the household inequality variables made a significant contribution to the model. First, experiencing inequality in decision making within the household was found to be associated with depression (OR=1.316, p <0.05). When compared with women who had a say in major decisions or shared decisions with their spouse or partner, women with no say in decisions were 30% more likely to have depression. Interpersonal violence perpetrated by a partner or a spouse was also a significant predictor of a major depressive episode. Experiencing both severe and moderate

violent acts was associated with depression (OR=2.071, p <0.001). More precisely, compared with women who did not experience any form of violence, women who experienced moderate and severe acts of violence were two times more likely to meet criteria for depression. Further, higher age increased the risk of depression (OR=1.908, p <0.05) and being Asian decreased the risk by nearly 70% (OR=0.308, p <0.001) and being employed by 30% (OR=0.647, p <0.05). Table 2.2 also shows that at bivariate level perceived discrimination was significantly associated with PTSD (OR=1.080, p <0.001) and it remained a significant predictor in the multivariate analysis (OR=1.055, p <0.001) such that higher levels of discrimination were associated with a higher likelihood of meeting criteria for PTSD. Similarly, to the previous analysis, experiencing interpersonal violence was associated with the mental health outcome. Compared with women who did not experience interpersonal violence, women who experienced only moderate forms of violent treatment (OR=0.845, p <0.001) were 20% more likely to meet criteria for PTSD and those that were subjected to both severe and more moderate forms of violence like being choked, burned or scalded were 4.6 times more likely (OR=4.646, p <0.001). Perceived excessive demands from spouse or partner was also associated with the mental health outcome (OR=1.156, p <0.01). When compared with women that did not perceive excessive demands, women that considered that their spouse or partner put too many demands always and often were 15% more likely to meet criteria for PTSD. Foreign born, first generation women were 2.3 times more likely to have PTSD (OR=2.320, p <0.001). Being employed (OR=0.435, p <0.001) decreased the odds by almost 60% and also Asian women (OR=0.508, p <0.001) were also 50% less likely to meet criteria for PTSD than

Hispanic women. Similarly, to depression, greater age (OR=0.989, p <0.01) was associated with higher odds of PTSD.

Table 2.1 Descriptive statistics for the sample (N=1520)

Depression	7.9 %	
PTSD	2.6 %	
Age	41	19-97
Latino	55.9% (0.4)	
Asian	44.1% (0.4)	
U.S born, second generation	29.1% (0.4)	
Foreign born, first generation	70.9 % (0.4)	
0-11	29.7% (0.4)	
12	20.8 %(0.4)	
13-15	24.8 % (0.4)	
16+	24.7% (0.4)	
Income to poverty ratio		
0	15.4 % (0.3)	
1-2	34.1% (0.4)	
3+	50.5 %(0.5)	
Not employed	44.8 % (0.4)	
No access to decisions in the household	27.8 % (0.5)	
Moderate acts of violence	11.2 % (0.3)	
Severe acts of violence	3.3 %(0.1)	
Perceived excessive demands from partner		
Often and sometimes	39 % (0.4)	
Rarely	31.9 % (0.5)	

Weighted estimates (percentages and standard errors) of the sample are adjusted for complex survey design.

Table 2.2. Multiple logistic models of association between perceived discrimination, intra-household inequality and PTDS and depression

	Depression		**PTSD**	
Discrimination				
Everyday discrimination	1.050***	1.064***	1.080***	1.055***
Decision making				
No decision making		1.316*		1.049
Decision making alone or shared with partner (Reference)				
Interpersonal Violence				
Moderate forms		1.886		0.845***
Moderate and severe forms		2.071***		4.646***
No violence (Reference)				
Perceived excessive demands from partner				
Often and sometimes		0.866		1.156**
Never or rarely (Reference)				
Asian		0.308***		0.508***
Hispanic (Reference)				
Generation status				
First generation, foreign born		1.229		2.320***
Second generation, US born				
Education				
0-11		1.265		1.628
12		1.302		1.673
13-15		0.725		2.375
16+ (Ref)				

Table 2.2 (Continued)

Age		
Age	1*908	0.989**
Income to poverty ratio		
0 Poor	0.883	0.805
1-2	1.006	0.601
3 + (Ref)		
Employment status		
In labor force	0.647*	0.435***
Not in labor force (Reference)		

Values represent odds ratios and the following significance levels *** p <0.001 **p <0.01, * p <0.05
+p < 0.10

Discussion

This study showed that experiences of unfair treatment and of intrahousehold gender inequality both had independent and significant effects on depression and PTSD - the two major health outcomes examined in this study. The results highlight the need for more research to consider intrahousehold processes and intrahousehold gender inequality as determinants of first- and second-generation immigrant women's health. First, the results showed that immigrant women experience various forms of inequality in their relationships. The results in this study showed that one third of women reported to not have a say in major decisions and a fourth of the sample reported experiencing many demands from their spouse or partner. Interestingly, there were no differences between the first and

the second generation and among ethnic groups, a finding that could suggest that inequality in relationships is potentially reproduced or at least experienced by succeeding generations.

Intrahousehold inequality made a significant contribution to meeting criteria for both depression and PTSD in the past year. As expected, and as suggested by previous research, experiencing violence at any time over the course of their relationships was associated with two times likelihood or depression and severe forms of violent acts with nearly five times likelihood for PTSD. Although immigrant women in this study had similar rates of violence compared with women in the United States in general their situation could be potentially worsened by language, culture and financial barriers. It was not possible to identify the legal status of first-generation immigrant women in this study, but research should always consider their legal status such as documented status, permanent residence or citizenship since consequences of violence can be more severe if exit options or access to support and medical services are not available for them.

The other aspects of intrahousehold inequality have also been shown to increase vulnerability to the two mental health disorders. Experiencing inequality in the form of no access to decision making has been shown to put down women in both generations of ethnic groups and it increases their risk for depression and perception of excessive demands to increase the risk for PTSD. Study findings suggest that intrahousehold inequality can be considered an important post-migration stressor with a significant contribution and consequences in understanding the physical and mental health of immigrant and refugee women for both first-and-second generation. Furthermore, gender intrahousehold inequality could also contribute to understanding immigrant women's health trajectory post-migration considering that numerous studies found that gender health inequalities are

maintained among immigrants and also that women and men's health declines after migration and with the next generation (Acevedo-Garcia et al., 2012; Thomson, & Hoffman-Goetz, 2004; Viruell-Fuentes, Miranda & Abdulrahim, 2012).

One limitation of this study is that the study did not identify if an immigrant woman has had a refugee status prior to arriving the United States or if she was admitted with a refugee status. It would be interesting to consider the health of refugee women separately from other immigrant statuses and to be able to understand the impact of intrahousehold gender inequality among refugee women in contrast with other immigrant women. Studies have shown that pre-migration trauma - like experiencing wars or violence in general - the experience of refugee camps, asylum or torture exacerbate the consequences of interpersonal discrimination after migration and even more, of daily stressors increasing the risk for PTSD and also for increased severity of symptoms of other mental health conditions and of psychological distress (Chen, Ling, & Renzaho, 2017). Future studies should explore if pre-migration trauma increases a women's vulnerability to gender inequality experienced both in the private and public sphere post-migration and also if intrahousehold inequality exacerbates coping with other post-migration stressors such as financial insecurity, isolation, unemployment and experiences of discrimination.

Another finding of this study is that experiencing discrimination in interpersonal interactions was associated with an increased likelihood of experiencing both mental health disorders. Previous studies documented the harming effect of post-migration interpersonal discrimination on women's mental health and well-being (Blodorn, Major & Kaiser 2016; Krieger, 1990, 2012; Krieger et al., 2008; Williams & Mohammed, 2009). Among these studies some considered other post-migration stressors such as acculturative stress,

unemployment, and isolation along with experiences of discrimination. This study's findings suggest that research regarding immigrant and refugee women should consider the joint effect of post-migration discrimination and of intrahousehold gender inequality, that has shown to be an important post-migration stressor. It will be also important to understand if various experiences of intrahousehold gender inequality potentially increase women's vulnerability to the harming effects of post-migration interpersonal discrimination. Future studies could explore if women that experience gender inequality perceive more discrimination and if perceived intrahousehold inequality potentially moderates the association between interpersonal discrimination and various mental health outcomes and psychological distress.

Previous research studies and epidemiological and racism scholarship guided by intersectionality theory has suggested that in order to best estimate the consequences of experiencing discrimination research needs to clearly define a person's social location and position and to unpack the social context (Davis, 2008; Green, Evans & Subramanian, 2017). Further research studies need to define and consider the contribution of other psychosocial stressors that are associated with a person's social disadvantaged status or a status of inequality such as financial insecurity, violence, relationship stress (Lewis, Cogburn, & Williams, 2015). The findings of this study and also in line with intersectionality theory suggest that intrahousehold inequality could be considered a form of disadvantage and even more, it could to be conceptualized and measured in future discrimination studies (Davis, 2008; Green, Evans & Subramanian, 2017; Richardson & Brown, 2016; Williams et al., 2012).

Limitations and future studies

There are several limitations to this study. First, the study consisted of cross-sectional data and the study was a secondary analysis of data collected by other researchers. It is possible that associations identified in this study may run in the opposite direction. For example, it is possible that higher levels of distress that are associated with both depression and PTSD could potentially increase perceptions of fear and threat and thus influence women's appraisal of both the levels of discrimination and intrahousehold inequality that they experienced.

Another limitation is that this study did not have a measure for intrahousehold gender inequality. Although I used three important aspects of intrahousehold inequality an instrument that could have measured the construct could have potentially helped. Also, any study that involves gender inequality should also consider asking women about their perception of fairness. The family has been conceptualized as a space where extensive conflict often coexists with pervasive cooperation (Ivensen, 2003; Sen, 1987). Familial context can change a persons' view and concept of self-interest and well-being. Further, women might have less bargaining power and also, especially immigrant women that immigrate from less gender equal societies tend to underestimate their contribution to the family (Ivensen, 2003).

Another limitation is related to how discrimination is measured in any study that involves experiences of people from diverse backgrounds and from different national origins, languages, and cultures. The present study used the Everyday Discrimination Scale, the most frequently used instrument to measure perceived discrimination, a scale with tested validity and reliability across many studies and for different racial/ethnic

minority groups including in studies with Asian and Latino immigrants (Barnes et al., 2004; Hope et al., 2017; Kim, Sellbom & Ford, 2014). However, previous research has suggested that discrimination might be under-reported or over-reported in studies with immigrants and refugees. Immigrants might not recognize certain forms of discrimination, particularly if it was subtle. Among first generation immigrants' language difficulties and cultural differences might affect discernment of discrimination and individuals might also not report such encounters due to social desirability and fear. By contrast, among refugees, a history of stressful and traumatic experiences might increase their sense of insecurity and threat and could potentially over-estimate discrimination in interpersonal interactions after migration. In addition, many of the measures in the datasets were very limited even for some key constructs like depression and partner violence.

Finally, another limitation is that the National Latino and Asian American Study is that it is an older survey in which the data was collected eighteen years ago, between May 2002 and November 2003 (Alegria et al., 2008; Heeringa et al, 2004) and it can be argued that since then the migration process and the context of reception has changed significantly. However, the NLAAS is the most comprehensive survey of Latino and Asians in the U.S, the only study with a nationally representative sample for Asian and Latino households and with a nationally representative epidemiological data regarding the distribution of lifetime and 12 months' prevalence of mental disorders and disability associated with mental illness among immigrants and refugees (Heeringa et al, 2004).

References

Abdulrahim, S., James, S. A., Yamout, R., & Baker, W. (2012). Discrimination and psychological distress: Does Whiteness matter for Arab Americans?. *Social science & medicine*, *75*(12), 2116-2123.

Acevedo-Garcia, D., Sanchez-Vaznaugh, E. V., Viruell-Fuentes, E. A., & Almeida, J. (2012). Integrating social epidemiology into immigrant health research: a cross-national framework. *Social science & medicine*, *75*(12), 2060-2068.Adames, S. B., & Campbell, R. (2005). Immigrant Latinas' conceptualizations of intimate partner violence. *Violence Against Women*, *11*(10), 1341-1364.

Ahmed, A. T., Mohammed, S. A., & Williams, D. R. (2007). Racial discrimination & health: Pathways & evidence. *Indian Journal of Medical Research*, *126*(4), 318.

Alamilla, S. G., Kim, B. S., & Lam, N. A. (2010). Acculturation, enculturation, perceived racism, minority status stressors, and psychological symptomatology among Latino/as. *Hispanic Journal of Behavioral Sciences*, *32*(1), 55-76.

Alegría, M., Canino, G., Shrout, P. E., Woo, M., Duan, N., Vila, D., ... & Meng, X. L. (2008). Prevalence of mental illness in immigrant and non-immigrant US Latino groups. *American Journal of Psychiatry*, *165*(3), 359-369.

Alwin, Duane F., Michael Braun, and Jackie Scott. 1992. "The Separation of Work and the Family: Attitudes toward Women's Labour-Force Participation in Germany, Great Britain, and the United States." European Sociological Review 8(1):13–37.

Ammar, N. H., Orloff, L. E., Dutton, M. A., & Hass, G. A. (2012). Battered immigrant women in the United States and protection orders: An exploratory research. *Criminal justice review*, *37*(3), 337-359.

Amanor-Boadu, Y., Messing, J. T., Stith, S. M., Anderson, J. R., O'Sullivan, C. S., & Campbell, J. C. (2012). Immigrant and Nonimmigrant Women Factors That Predict Leaving an Abusive Relationship. *Violence against women*, *18*(5), 611-633.

Ameyaw, E. K., Tanle, A., Kissah-Korsah, K., & Amo-Adjei, J. (2016). Women's health decision-making autonomy and skilled birth attendance in Ghana. *International journal of reproductive medicine*, *2016*.

Arellano-Morales, L., Roesch, S. C., Gallo, L. C., Emory, K. T., Molina, K. M., Gonzalez, P., ... & Isasi, C. R. (2015). Prevalence and correlates of perceived ethnic discrimination in the Hispanic Community Health Study/Study of Latinos Sociocultural Ancillary Study. *Journal of Latina/o psychology*, *3*(3), 160.

Armenta, B. E., & Hunt, J. S. (2009). Responding to societal devaluation: Effects of perceived personal and group discrimination on the ethnic group identification and personal self-esteem of Latino/Latina adolescents. *Group Processes & Intergroup Relations*, *12*(1), 23-39.

Asad, A. L., & Clair, M. (2018). Racialized legal status as a social determinant of health. *Social Science & Medicine*, *199*, 19-28.

Assari, S., & Caldwell, C. H. (2018). Social determinants of perceived discrimination among black youth: Intersection of ethnicity and gender. *Children*, *5*(2), 24.

Acevedo-Garcia, D., & Almeida, J. (2012). Special issue introduction: place, migration and health. *Social science & medicine (1982)*, *75*(12), 2055.

Acevedo-Garcia, D., Sanchez-Vaznaugh, E. V., Viruell-Fuentes, E. A., & Almeida, J. (2012). Integrating social epidemiology into immigrant health research: a cross-national framework. *Social science & medicine*, *75*(12), 2060-2068

Alegria, M., Takeuchi, D., Canino, G., Duan, N., Shrout, P., Meng, X. L., ... & Vera, M. (2004). Considering context, place and culture: the National Latino and Asian American Study. *International journal of methods in psychiatric research*, *13*(4), 208-220.

Amnesty International (2014). Torture in 2014. 30 Years of broken promises. Retrieved from https://www.amnesty.org/en/documents/ACT40/004/2014/en/.

Ayón, C., Marsiglia, F. F., & Bermudez-Parsai, M. (2010). Latino family mental health: Exploring the role of discrimination and familismo. *Journal of Community Psychology*, *38*(6), 742-756.

Barnes, L. L., De Leon, C. F. M., Wilson, R. S., Bienias, J. L., Bennett, D. A., & Evans, D. A. (2004). Racial differences in perceived discrimination in a community population of older blacks and whites. *Journal of Aging and Health*, *16*(3), 315-337.

Barry, D. T., & Grilo, C. M. (2003). Cultural, self-esteem, and demographic correlates of perception of personal and group discrimination among East Asian immigrants. *American Journal of Orthopsychiatry*, *73*(2), 223.

Bastia, T. (2014). Intersectionality, migration and development. *Progress in Development Studies*, *14*(3), 237-248.

Bécares, L., & Zhang, N. (2017). Perceived Interpersonal Discrimination and Older Women's Mental Health: Accumulation Across Domains, Attributions, and Time. *American journal of epidemiology*, *187*(5), 924-932.

Beegle, K., Frankenberg, E., & Thomas, D. (2001). Bargaining power within couples and use ofprenatal and delivery care in Indonesia. *Studies in family planning*, *32*(2), 130-146.Bernstein, K. S., Park, S. Y., Shin, J., Cho, S., & Park, Y. (2011). Acculturation, discrimination and depressive symptoms among Korean immigrants in New York City. *Community mental health journal*, *47*(1), 24-34.

Bittman, M., England, P., Sayer, L., Folbre, N., & Matheson, G. (2003). When does gender trump money? Bargaining and time in household work. *American Journal of sociology*, *109*(1), 186-214.

Bent-Goodley, T. B. (2007). Health disparities and violence against women: Why and how cultural and societal influences matter. *Trauma, Violence, & Abuse*, *8*(2), 90-104.

Blau, F. D., Kahn, L. M., Liu, A. Y. H., & Papps, K. L. (2013). The transmission of women's fertility, human capital, and work orientation across immigrant generations. *Journal of Population Economics*, *26*(2), 405-435.

Blodorn, A., Major, B., & Kaiser, C. (2016). Perceived discrimination and poor health: Accounting for self-blame complicates a well-established relationship. *Social Science & Medicine*, *153*, 27-34.

Bird, C. E. (1999). Gender, household labor, and psychological distress: The impact of the amount and division of housework. *Journal of Health and Social Behavior*, 32-45.

Breslau, J., Aguilar-Gaxiola, S., Kendler, K. S., Su, M., Williams, D., & Kessler, R. C. (2006). Specifying race-ethnic differences in risk for psychiatric disorder in a USA national sample. *Psychological medicine*, *36*(1), 57-68.

Bogart, L. M., Landrine, H., Galvan, F. H., Wagner, G. J., & Klein, D. J. (2013). Perceived discrimination and physical health among HIV-positive Black and Latino men who have sex with men. *AIDS and Behavior*, *17*(4), 1431-1441.

Bogic, M., Njoku, A., & Priebe, S. (2015). Long-term mental health of war-refugees: a systematic literature review. *BMC international health and human rights*, *15*(1), 29.

Bose, C. E. (2012). Intersectionality and global gender inequality. *Gender & Society*, *26*(1), 67-72.

Bowleg, L. (2008). When Black+ lesbian+ woman≠ Black lesbian woman: The methodological challenges of qualitative and quantitative intersectionality research. *Sex roles*, *59*(5-6), 312-325.

Brooks, C., & Bolzendahl, C. (2004). The transformation of US gender role attitudes: Cohort replacement, social-structural change, and ideological learning. *Social Science Research*, *33*(1), 106-133.

Boyd, A., Van de Velde, S., Vilagut, G., De Graaf, R., Florescu, S., Alonso, J., ... & EU-WMH Investigators. (2015). Gender differences in mental disorders and suicidality in Europe: results from a large cross-sectional population-based study. *Journal of affective disorders*, *173*, 245-254.

Campbell, J. C. (2002). Health consequences of intimate partner violence. *The lancet*, *359*(9314), 1331-1336.

Carr, E. R., Szymanski, D. M., Taha, F., West, L. M., & Kaslow, N. J. (2014). Understanding the link between multiple oppressions and depression among African American women: The role of internalization. *Psychology of Women Quarterly*, *38*(2), 233-245.

Chae, D. H., Takeuchi, D. T., Barbeau, E. M., Bennett, G. G., Lindsey, J., & Krieger, N. (2008). Unfair treatment, racial/ethnic discrimination, ethnic identification, and smoking among Asian Americans in the National Latino and Asian American Study. *American journal of public health*, *98*(3), 485-492.

Chen, W., Hall, B. J., Ling, L., & Renzaho, A. M. (2017). Pre-migration and post-migration factors associated with mental health in humanitarian migrants in Australia and the moderation effect of post-migration stressors: findings from the first wave data of the BNLA cohort study. *The Lancet Psychiatry*, *4*(3), 218-229.

Chae, D. H., & Yoshikawa, H. (2008). Perceived group devaluation, depression, and HIV-risk behavior among Asian gay men. *Health Psychology*, *27*(2), 140.

Chou, T., Asnaani, A., & Hofmann, S. G. (2012). Perception of racial discrimination and psychopathology across three US ethnic minority groups. *Cultural Diversity and Ethnic Minority Psychology*, *18*(1), 74.

Cloitre, M., Stolbach, B. C., Herman, J. L., Kolk, B. V. D., Pynoos, R., Wang, J., & Petkova, E. (2009). A developmental approach to complex PTSD: Childhood and adult cumulative trauma as predictors of symptom complexity. *Journal of traumatic stress*, *22*(5), 399-408.

Coker, A. L., Smith, P. H., Bethea, L., King, M. R., & McKeown, R. E. (2000a). Physical health consequences of physical and psychological intimate partner violence. *Archives of family medicine*, *9*(5), 451.

Coker, A. L., Smith, P. H., McKeown, R. E., & King, M. J. (2000b). Frequency and correlates of intimate partner violence by type: physical, sexual, and psychological battering. *American journal of public health*, *90*(4), 553.

Colen, C. G., Ramey, D. M., Cooksey, E. C., & Williams, D. R. (2018). Racial disparities in health among nonpoor African Americans and Hispanics: the role of acute and chronic discrimination. *Social Science & Medicine*, *199*, 167-180.

Conde, E., & Gorman, D. M. (2009). Krieger's conceptualization and measurement of discrimination and internalized oppression in studies of adverse health outcomes. *GeoJournal*, *74*(2), 131-142.

Cormack, D., Stanley, J., & Harris, R. (2018). Multiple forms of discrimination and relationships with health and wellbeing: findings from national cross-sectional surveys in Aotearoa/New Zealand. *International journal for equity in health*, *17*(1), 26.

Cotter, D., Hermsen, J. M., & Vanneman, R. (2011). The end of the gender revolution? Gender role attitudes from 1977 to 2008. *American Journal of Sociology*, *117*(1), 259-89.

Davis, K. A. (2004). Unlocking the Door by Giving Her the Key: A Comment on the Adequacy of the U-Visa as a Remedy. *Ala. L. Rev.*, *56*, 557.

Davis, K. (2008). Intersectionality as buzzword: A sociology of science perspective on what makes a feminist theory successful. *Feminist theory*, *9*(1), 67-85.

DeBlaere, C., Brewster, M. E., Bertsch, K. N., DeCarlo, A. L., Kegel, K. A., & Presseau, C. D. (2014). The protective power of collective action for sexual minority women of color: An investigation of multiple discrimination experiences and psychological distress. *Psychology of Women Quarterly*, *38*(1), 20-32.

Devries, K. M., Mak, J. Y., Bacchus, L. J., Child, J. C., Falder, G., Petzold, M., ... & Watts, C. H. (2013). Intimate partner violence and incident depressive symptoms and suicide attempts: a systematic review of longitudinal studies. *PLoS medicine*, *10*(5), e1001439.

Dong, X., Chen, R., & Simon, M. (2014). Experience of Discrimination Among U.S. Chinese Older Adults. *The Journals of Gerontology, 69*, S76.

Dutton, M. A., Green, B. L., Kaltman, S. I., Roesch, D. M., Zeffiro, T. A., & Krause, E. D. (2006). Intimate partner violence, PTSD, and adverse health outcomes. *Journal of interpersonal violence*, *21*(7), 955-968.

Dolezsar, C. M., McGrath, J. J., Herzig, A. J., & Miller, S. B. (2014). Perceived racial discrimination and hypertension: a comprehensive systematic review. *Health Psychology*, *33*(1), 20.

Eek, F., & Axmon, A. (2015). Gender inequality at home is associated with poorer health for women. *Scandinavian journal of public health*, *43*(2), 176-182.

Ellsberg, M., Jansen, H. A., Heise, L., Watts, C. H., & Garcia-Moreno, C. (2008). Intimate partner violence and women's physical and mental health in the WHO multi-country study on women's health and domestic violence: an observational study. *The Lancet*, *371*(9619), 1165-1172.

Evans, C. R., Williams, D. R., Onnela, J. P., & Subramanian, S. V. (2018). A multilevel approach to modeling health inequalities at the intersection of multiple social identities. *Social Science & Medicine*, *203*, 64-73.

Fazel, S., Smith, E. N., Chang, Z., & Geddes, J. R. (2018). Risk factors for interpersonal violence: an umbrella review of meta-analyses. *The British Journal of Psychiatry*, 1-6.

Fazel, M., Wheeler, J., & Danesh, J. (2005). Prevalence of serious mental disorder in 7000 refugees resettled in western countries: a systematic review. *The Lancet*, *365*(9467), 1309-1314.

Ferree, M. M. (2015). Beyond the Us-Them Binary: Power and Exclusion in Intersectional Analysis. *DiGeSt. Journal of Diversity and Gender Studies*, *2*(1-2), 33-38.

Finch, B. K., Kolody, B., & Vega, W. A. (2000). Perceived discrimination and depression among Mexican-origin adults in California. *Journal of Health and Social Behavior*, 295-313.

Frank, K., & Hou, F. (2015). Source-Country Gender Roles and the Division of Labor Within Immigrant Families. *Journal of Marriage and Family*, *77*(2), 557-574.

Frisco, M. L., & Williams, K. (2003). Perceived housework equity, marital happiness, and divorce in dual-earner households. *Journal of Family Issues, 24*(1), 51-73.

Fuwa, M. (2004). Macro-level gender inequality and the division of household labor in 22 countries. American Sociological Review, 69, 751–767.

García-Moreno, C., Zimmerman, C., Morris-Gehring, A., Heise, L., Amin, A., Abrahams, N., ... & Watts, C. (2015). Addressing violence against women: a call to action. *The Lancet*, *385*(9978), 1685-1695.

Gayman, M. D., & Barragan, J. (2013). Multiple perceived reasons for major discrimination and depression. *Society and Mental Health*, *3*(3), 203-220.

Gee, G. (2002). A multilevel analysis of the relationship between institutional and individual racial discrimination and health status. *American Journal of Public Health,92*(4), 615-23.

Gee, G. C., Ryan, A., Laflamme, D. J., & Holt, J. (2006). Self-reported discrimination and mental health status among African descendants, Mexican Americans, and other Latinos in the New Hampshire REACH 2010 Initiative: the added dimension of immigration. *American Journal of Public Health*, *96*(10), 1821-1828.

Gee, G. C., Spencer, M., Chen, J., Yip, T., & Takeuchi, D. T. (2007). The association between self-reported racial discrimination and 12-month DSM-IV mental disorders among Asian Americans nationwide. *Social Science & Medicine*, *64*(10), 1984-1996.

Gee, G. C., Ro, A., Shariff-Marco, S., & Chae, D. (2009). Racial discrimination and health among Asian Americans: evidence, assessment, and directions for future research. *Epidemiologic reviews*, *31*(1), 130-151.

Gee, G. C., & Ponce, N. (2010). Associations between racial discrimination, limited English proficiency, and health-related quality of life among 6 Asian ethnic groups in California. *American Journal of Public Health*, *100*(5), 888-895.

Gee, G. C., Ryan, A., Laflamme, D. J., & Holt, J. (2006). Self-reported discrimination and mental health status among African descendants, Mexican Americans, and other Latinos in the New Hampshire REACH 2010 Initiative: the added dimension of immigration. *American Journal of Public Health*, *96*(10), 1821-1828.

Gee, G. C., Spencer, M., Chen, J., Yip, T., & Takeuchi, D. T. (2007). The association between self-reported racial discrimination and 12-month DSM-IV mental disorders among Asian Americans nationwide. *Social Science & Medicine*, *64*(10), 1984-1996.

Gee, G. C., Ro, A., Shariff-Marco, S., & Chae, D. (2009). Racial discrimination and health among Asian Americans: evidence, assessment, and directions for future research. *Epidemiologic reviews*, *31*(1), 130-151.

Green, M. A., Evans, C. R., & Subramanian, S. V. (2017). Can intersectionality theory enrich population health research? *Social science & medicine (1982)*, *178*, 214.

Grollman, E. A. (2012). Multiple forms of perceived discrimination and health among adolescents and young adults. *Journal of Health and Social Behavior*, *53*(2), 199-214.

Grollman, E. A. (2014). Multiple disadvantaged statuses and health: the role of multiple forms of discrimination. *Journal of health and social behavior*, *55*(1), 3-19.

Gonçalves, M., & Matos, M. (2016). Prevalence of violence against immigrant women: a systematic review of the literature. *Journal of family violence*, *31*(6), 697-710.

Golding, J. M. (1999). Intimate partner violence as a risk factor for mental disorders: A meta-analysis. *Journal of family violence*, *14*(2), 99-132.

Griffin, J. M., Fuhrer, R., Stansfeld, S. A., & Marmot, M. (2002). The importance of low control at work and home on depression and anxiety: do these effects vary by gender and social class?. *Social science & medicine*, *54*(5), 783-798.

Gurrieri, J. (2005). EXPERT GROUP MEETING ON INTERNATIONAL MIGRATION AND DEVELOPMENT IN LATIN AMERICA AND THE CARIBBEAN.

Harryson, L., Novo, M., & Hammarström, A. (2010). Is gender inequality in the domestic sphere associated with psychological distress among women and men? Results from the Northern Swedish Cohort. *Journal of Epidemiology & Community Health*, jech-2010.

Harryson, L., Strandh, M., & Hammarström, A. (2012). Domestic Work and Psychological Distress− What Is the Importance of Relative Socioeconomic Position and Gender Inequality in the Couple Relationship? *PloS one*, *7*(6), e38484.

Haroz, E. E., Ritchey, M., Bass, J. K., Kohrt, B. A., Augustinavicius, J., Michalopoulos, L., ... & Bolton, P. (2017). How is depression experienced around the world? A systematic review of qualitative literature. *Social Science & Medicine*, *183*, 151-162.

Hausmann, R., Tyson, L. D., Bekhouche, Y., & Zahidi, S. (2012). The Global Gender Gap Report 2012. Geneva. Switzerland. World Economic Forum; 2012.

Hazen, A. L., & Soriano, F. I. (2007). Experiences with intimate partner violence among Latina women. *Violence Against Women*, *13*(6), 562-582.Hondagneu-Sotelo, P., & Cranford, C. (2006). Gender and migration. In *Handbook of the Sociology of Gender* (pp. 105-126). Springer, Boston, MA.

Heeringa, S. G., Wagner, J., Torres, M., Duan, N., Adams, T., & Berglund, P. (2004). Sample designs and sampling methods for the Collaborative Psychiatric Epidemiology Studies (CPES). *International journal of methods in psychiatric research*, *13*(4), 221-240.

Hermansson, A. C., Timpka, T., & Thyberg, M. (2002). The mental health of war-wounded refugees: an 8-year follow-up. *The Journal of nervous and mental disease*, *190*(6), 374-380.

Hollifield, M., Warner, T. D., Lian, N., Krakow, B., Jenkins, J. H., Kesler, J., ... & Westermeyer, J. (2002). Measuring trauma and health status in refugees: a critical review. *Jama*, *288*(5), 611-621.

Holtan, N., Antolak, K., Johnson, D. R., Ide, L., Jaranson, J., & Ta, K. (2002). Unrecognized torture affects the health of refugees. *Minnesota Medicine*, *85*(5), 35-39.

Hook, J. L. (2010). Gender inequality in the welfare state: Sex segregation in housework, 1965–2003. *American journal of sociology*, *115*(5), 1480-1523.

Hope, M. O., Assari, S., Cole-Lewis, Y. C., & Caldwell, C. H. (2017). Religious social support, discrimination, and psychiatric disorders among Black adolescents. *Race and Social Problems*, *9*(2), 102-114.

Howard, L. M., Ehrlich, A. M., Gamlen, F., & Oram, S. (2017). Gender-neutral mental health research is sex and gender biased. *The Lancet Psychiatry*, *4*(1), 9-11.

Hwang, W. C., & Goto, S. (2008). The impact of perceived racial discrimination on the mental health of Asian American and Latino college students. *Cultural Diversity and Ethnic Minority Psychology*, *14*(4), 326.

Huynh, V. W., & Fuligni, A. J. (2010). Discrimination hurts: The academic, psychological, and physical well-being of adolescents. *Journal of Research on adolescence*, *20*(4), 916-941.

Huynh, Q. L., Devos, T., & Dunbar, C. M. (2012). The psychological costs of painless but recurring experiences of racial discrimination. *Cultural Diversity and Ethnic Minority Psychology*, *18*(1), 26.

Iversen, V. (2003). Intra-household inequality: a challenge for the capability approach?. *Feminist economics*, *9*(2-3), 93-115.

Jang, Y., Chiriboga, D. A., Kim, G., & Rhew, S. (2010). Perceived discrimination, sense of control, and depressive symptoms among Korean American older adults. *Asian American Journal of Psychology*, *1*(2), 129.

Jatrana, S., & Pasupuleti, S. S. R. (2015). Women's autonomy, education and birth intervals in India: Visiting the less familiar. *Asian Population Studies*, *11*(2), 172-190.

Jayachandran, S. (2015). The roots of gender inequality in developing countries. *economics*, *7*(1), 63-88

John, R., Resendiz, R., & De Vargas, L. W. (1997). Beyond familism? Familism as explicit motive for eldercare among Mexican American caregivers. *Journal of Cross-Cultural Gerontology*, *12*(2), 145-162.

Jones, L., Hughes, M., & Unterstaller, U. (2001). Post-traumatic stress disorder (PTSD) in victims of domestic violence: A review of the research. *Trauma, Violence, & Abuse*, *2*(2), 99-119.

Kalt, A., Hossain, M., Kiss, L., & Zimmerman, C. (2013). Asylum seekers, violence and health: A systematic review of research in high-income host countries. American journal of public health, 103(3), e30-e42.

Karlsen, S., & Nazroo, J. (2002). Relation between racial discrimination, social class, and health among ethnic minority groups. *American Journal of Public Health, 92*(4), 624-31.

Karlsen, S., Nazroo, J. Y., McKenzie, K., Bhui, K., & Weich, S. (2005). Racism, psychosis and common mental disorder among ethnic minority groups in England. *Psychological medicine*, *35*(12), 1795-1803.

Kessler, R. C., Mickelson, K. D., & Williams, D. R. (1999). The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. Journal of Health and Social Behavior, 40(3), 208-230.

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of general psychiatry*, *62*(6), 593-602.

Kessler, R. C. (2007). The global burden of anxiety and mood disorders: putting ESEMeD findings into perspective. *The Journal of clinical psychiatry*, *68*(Suppl 2), 10.

Kessler, R. C., Petukhova, M., Sampson, N. A., Zaslavsky, A. M., & Wittchen, H. U. (2012). Twelve-month and lifetime prevalence and lifetime morbid risk of anxiety and mood disorders in the United States. *International journal of methods in psychiatric research*, *21*(3), 169-184.

Kim, I., & Noh, S. (2014). Ethnic and Gender Differences in the Association Between Discrimination and Depressive Symptoms Among Five Immigrant Groups. *Journal of Immigrant and Minority Health, 16*(6), 1167-1175.

Kim, G., Sellbom, M., & Ford, K. L. (2014). Race/ethnicity and measurement equivalence of the Everyday Discrimination Scale. *Psychological Assessment*, *26*(3), 892.

Kirmayer, L. J., Narasiah, L., Munoz, M., Rashid, M., Ryder, A. G., Guzder, J., ... & Canadian Collaboration for Immigrant and Refugee Health (CCIRH. (2011). Common mental health problems in immigrants and refugees: general approach in primary care. *Canadian Medical Association Journal*, cmaj-090292.

Kishor, S. (2005). A focus on gender: collected papers on gender using DHS data.

Klugman, Jeni, Lucia Hanmer, Sarah Twigg, Tazeen Hasan, Jennifer McCleary-Sills & Julieth Santamaria. 2014. Voice and Agency: Empowering Women and Girls for Shared Prosperity. Washington, DC: World Bank. doi:10.1596/978-1-4648-0359-8. License: Creative Commons Attribution CC BY 3.0 IGO

Krieger, N. (1990). Racial and gender discrimination: risk factors for high blood pressure? *Social science & medicine*, *30*(12), 1273-1281.

Krieger, N. (1999). Embodying inequality: a review of concepts, measures, and methods for studying health consequences of discrimination. *International journal of health services*, *29*(2), 295-352.

Krieger, N. (2001). A glossary for social epidemiology. *Journal of Epidemiology & Community Health*, *55*(10), 693-700.

Krieger, N., & Davey Smith, G. (2004). "Bodies count," and body counts: social epidemiology and embodying inequality. *Epidemiologic reviews*, *26*(1), 92-103.

Krieger, N. (2005). Embodiment: a conceptual glossary for epidemiology. *Journal of Epidemiology & Community Health*, *59*(5), 350-355.

Krieger, N. (2011). *Epidemiology and the people's health: theory and context*. Oxford University Press.

Krieger, N. (2012). Methods for the scientific study of discrimination and health: an ecosocial approach. *American journal of public health*, *102*(5), 936-944.

Kucharska, J. (2017). Cumulative trauma, gender discrimination and mental health in women: mediating role of self-esteem. *Journal of Mental Health*, 1-8.

Kuehner, C. (2017). Why is depression more common among women than among men?. *The Lancet Psychiatry*, *4*(2), 146-158.

Lam, B. T. (2007). Impact of perceived racial discrimination and collective self-esteem on psychological distress among Vietnamese American college students: Sense of coherence as mediator. *American Journal of Orthopsychiatry*, *77*(3), 370.

Lee, R. M. (2003). Do ethnic identity and other-group orientation protect against discrimination for Asian Americans? Journal of Counseling Psychology, 50, 133–141

Leopold, T. A., Ratcheva, V., & Zahidi, S. (2016). The global gender gap report 2016. In World Economic Forum.

Lewis, T. T., Cogburn, C. D., & Williams, D. R. (2015). Self-reported experiences of discrimination and health: scientific advances, ongoing controversies, and emerging issues. *Annual review of clinical psychology*, *11*, 407-440.

Li, S. H., & Graham, B. M. (2017). Why are women so vulnerable to anxiety, trauma-related and stress-related disorders? The potential role of sex hormones. *The Lancet Psychiatry*, *4*(1), 73-82.

Li, L., & Dong, X. (2017). Self-reported Discrimination and Depressive Symptoms Among Older Chinese Adults in Chicago. *Journals of Gerontology Series A: Biomedical Sciences and Medical Sciences, 72*(Suppl1), S119-S124.

Llacer, A., Zunzunegui, M. V., Del Amo, J., Mazarrasa, L., & Bolůmar, F. (2007). The contribution of a gender perspective to the understanding of migrants' health. *Journal of Epidemiology & Community Health*, *61*(Suppl 2), ii4-ii10.

Lim, I. S. (1997). Korean immigrant women's challenge to gender inequality at home: The interplay of economic resources, gender, and family. *Gender & society*, *11*(1), 31-51.

Lindert, J., von Ehrenstein, O. S., Priebe, S., Mielck, A., & Brähler, E. (2009). Depression and anxiety in labor migrants and refugees–a systematic review and meta-analysis. *Social science & medicine*, *69*(2), 246-257.

Logan, T. K., Walker, R., Jordan, C. E., & Leukefeld, C. G. (2006). *Women and victimization: Contributing factors, interventions, and implications*. American Psychological Association.

Logie, C., James, L., Tharao, W., & Loutfy, M. (2013). Associations between HIV-related stigma, racial discrimination, gender discrimination, and depression among HIV-positive African, Caribbean, and Black women in Ontario, Canada. *AIDS patient care and STDs*, *27*(2), 114-122.

Loo, C., Fairbank, J., Scurfield, R., Ruch, L., King, D., Adams, L., . . . Haynes, Stephen N. (2001). Measuring Exposure to Racism: Development and Validation of a Race-Related Stressor Scale (RRSS) for Asian American Vietnam Veterans. *Psychological Assessment, 13*(4), 503-520.

Loo, C. M., Fairbank, J. A., & Chemtob, C. M. (2005). Adverse race-related events as a risk factor for posttraumatic stress disorder in Asian American Vietnam veterans. *The Journal of nervous and mental disease*, *193*(7), 455-463.

Lutz, H. (2015). Intersectionality as method. *DiGeSt. Journal of Diversity and Gender Studies*, *2*(1-2), 39-44.

Lyon, E., Bradshaw, J., Menard, A. (2011). Meeting Survivor's' Needs Through Non-Residential Domestic Violence Services & Supports: Results of a Multi-State Study (NCJ Publication # 237328) U.S. Department of Justice. Washington, DC: U.S. Government Printing Office. Retrieved May 2, 2013, from https://www.ncjrs.gov/pdffiles1/nij/grants/237328.pdf.

Mabsout, R. (2011). Capability and health functioning in Ethiopian households. *Social indicators research*, *101*(3), 359-389.

Masood, N., Okazaki, S., & Takeuchi, D. T. (2009). Gender, family, and community correlates of mental health in South Asian Americans. *Cultural Diversity and Ethnic Minority Psychology*, *15*(3), 265.

McLean, C. P., Asnaani, A., Litz, B. T., & Hofmann, S. G. (2011). Gender differences in anxiety disorders: prevalence, course of illness, comorbidity and burden of illness. *Journal of psychiatric research*, *45*(8), 1027-1035.

Menselson, T., Rehkopf, D. H., & Kubzansky, L. D. (2008). Depression among Latinos in the United States: a meta-analytic review. *Journal of Consulting and Clinical Psychology*, *76*(3), 355.

Mersky, J. P., Janczewski, C. E., & Nitkowski, J. C. (2018). Poor mental health among low-income women in the US: The roles of adverse childhood and adult experiences. *Social Science & Medicine*, *206*, 14-21.

Moradi, B., & Risco, C. (2006). Perceived discrimination experiences and mental health of Latina/o American persons. *Journal of Counseling Psychology, 53*(4), 411-421.

Mendez-Luck, C. A., & Anthony, K. P. (2015). Marianismo and caregiving role beliefs among US-born and immigrant Mexican women. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *71*(5), 926-935.

Miyawaki, C. E. (2015). A review of ethnicity, culture, and acculturation among Asian caregivers of older adults (2000-2012). *SAGE open*, *5*(1), 2158244014566365.

Moradi, B., & Hasan, N. T. (2004). Arab American persons' reported experiences of discrimination and mental health: The mediating role of personal control. *Journal of Counseling Psychology*, *51*(4), 418.

Moss, N. E. (2002). Gender equity and socioeconomic inequality: a framework for the patterning of women's health. *Social science & medicine*, *54*(5), 649-661.

Mossakowski, K. (2003). Coping with Perceived Discrimination: Does Ethnic Identity Protect Mental Health? *Journal of Health and Social Behavior, 44*(3), 318-331.

Mossakowski, Krysia N. (2007). Are Immigrants Healthier? The Case of Depression among Filipino Americans. *Social Psychology Quarterly, 70*(3), 290-304.

Moynihan, B., Gaboury, M. T., & Onken, K. J. (2008). Undocumented and unprotected immigrant women and children in harm's way. *Journal of Forensic Nursing*, *4*(3), 123-129.

Myers, H. F., Wyatt, G. E., Ullman, J. B., Loeb, T. B., Chin, D., Prause, N., ... & Liu, H. (2015). Cumulative burden of lifetime adversities: Trauma and mental health in low-SES African Americans and Latino/as. *Psychological Trauma: Theory, Research, Practice, and Policy*, *7*(3), 243

Oh, Yang, Anglin, & Devylder. (2014). Perceived discrimination and psychotic experiences across multiple ethnic groups in the United States. Schizophrenia Research, 157(1-3), 259-265.

Ong, A. D., Williams, D. R., Nwizu, U., & Gruenewald, T. L. (2017). Everyday unfair treatment and multisystem biological dysregulation in African American adults. Cultural Diversity and Ethnic Minority Psychology, 23(1), 27-35.

Oram, S., Khalifeh, H., & Howard, L. M. (2017). Violence against women and mental health. *The Lancet Psychiatry*, *4*(2), 159-170.

Osamor, P., & Grady, C. (2018). Factors associated with women's health care decision-making autonomy: empirical evidence from Nigeria. *Journal of biosocial science*, *50*(1), 70-85.

Paradies, Y. (2006). A systematic review of empirical research on self-reported racism and health. *International journal of epidemiology*, *35*(4), 888-901.

Paradies, Y., Ben, J., Denson, N., Elias, A., Priest, N., Pieterse, A., ... & Gee, G. (2015). Racism as a determinant of health: a systematic review and meta-analysis. *PloS one*, *10*(9), e0138511.

Pico-Alfonso, M. A., Garcia-Linares, M. I., Celda-Navarro, N., Blasco-Ros, C., Echeburúa, E., & Martinez, M. (2006). The impact of physical, psychological, and sexual intimate male partner violence on women's mental health: depressive symptoms, posttraumatic stress disorder, state anxiety, and suicide. *Journal of women's health*, *15*(5), 599-611.

Parrado, E. A., Flippen, C. A., & McQuiston, C. (2005). Migration and relationship power among Mexican women. *Demography*, *42*(2), 347-372.

Pascoe, E. A., & Smart Richman, L. (2009). Perceived discrimination and health: a meta-analytic review. *Psychological bulletin*, *135*(4), 531.

Röder, A., & Mühlau, P. (2014). Are they acculturating? Europe's immigrants and gender egalitarianism. *Social Forces*, *92*(3), 899-928.

Pérez, D. J., Fortuna, L., & Alegria, M. (2008). Prevalence and correlates of everyday discrimination among US Latinos. *Journal of community psychology*, *36*(4), 421-433.

Peterson, L. M., Matthews, K. A., Derby, C. A., Bromberger, J. T., & Thurston, R. C. (2016). The relationship between cumulative unfair treatment and intima media thickness and adventitial diameter: The moderating role of race in the study of women's health across the nation. *Health Psychology*, *35*(4), 313.

Pittaway, E., & Bartolomei, L. (2001). Refugees, race, and gender: The multiple discrimination against refugee women. *Refuge: Canada's Journal on Refugees*, *19*(6).

Pyke, K. D., & Johnson, D. L. (2003). Asian American Women And Racialized Femininities: "Doing" Gender across Cultural Worlds. *Gender & Society*, *17*(1), 33-53.

Raj, A., & Silverman, J. (2002). Violence Against Immigrant Women: The Roles of Culture, Context, and Legal Immigrant Status on Intimate Partner Violence. *Violence against women*, *8*(3), 367-398.

Richardson, L. J., & Brown, T. H. (2016). (En) gendering racial disparities in health trajectories: A life course and intersectional analysis. *SSM-population health*, *2*, 425-435.

Riecher-Rössler, A. (2017). Sex and gender differences in mental disorders. *The Lancet Psychiatry*, *4*(1), 8-9.

Robinson, E., Sutin, A., & Daly, M. (2017). Perceived weight discrimination mediates the prospective relation between obesity and depressive symptoms in US and UK adults. Health Psychology Open, 36(2), 112-121.

Robjant, K., Hassan, R., & Katona, C. (2009). Mental health implications of detaining asylum seekers: systematic review. The British journal of psychiatry,194(4), 306-312.

Röder, A., & Mühlau, P. (2014). Are they acculturating? Europe's immigrants and gender egalitarianism. *Social Forces*, *92*(3), 899-928.

Rousseau, C., Hassan, G., Moreau, N., & Thombs, B. D. (2011). Perceived discrimination and its association with psychological distress among newly arrived immigrants before and after September 11, 2001. *American journal of public health*, *101*(5), 909-915.

Ryff, C. D., Keyes, C. L. M., & Hughes, D. L. (2003). Status inequalities, perceived discrimination, and eudaimonic well-being: Do the challenges of minority life hone purpose and growth? Journal of Health & Social Behavior, 44(3), 275-291

Sano, Y., Antabe, R., Atuoye, K. N., Braimah, J. A., Galaa, S. Z., & Luginaah, I. (2018a).

Seng, J. S., Lopez, W. D., Sperlich, M., Hamama, L., & Meldrum, C. D. R. (2012). Marginalized identities, discrimination burden, and mental health: Empirical exploration of an interpersonal-level approach to modeling intersectionality. *Social Science & Medicine*, *75*(12), 2437-2445.

Slewa-Younan, S., Guajardo, M. G. U., Heriseanu, A., & Hasan, T. (2015). A systematic review of post-traumatic stress disorder and depression amongst Iraqi refugees located in western countries. *Journal of immigrant and minority health*, *17*(4), 1231-1239.

Staland-Nyman, C., Alexanderson, K., & Hensing, G. (2008). Associations between strain in domestic work and self-rated health: A study of employed women in Sweden. Scandinavian Journal of Public Health, 36, 21–27. doi:10.1177/1403494807085307

Satyanarayana, V. A., Chandra, P. S., & Vaddiparti, K. (2015). Mental health consequences of violence against women and girls. *Current opinion in psychiatry*, *28*(5), 350-356.

Schmitt, M. T., Branscombe, N. R., Postmes, T., & Garcia, A. (2014). The consequences of perceived discrimination for psychological well-being: a meta-analytic review. *Psychological bulletin*, *140*(4), 921.

Schwartz, J. A. (2017). Long-term physical health consequences of perceived inequality: Results from a twin comparison design. Social Science & Medicine, 187, 184-192.

Seedat, S., Scott, K. M., Angermeyer, M. C., Berglund, P., Bromet, E. J., Brugha, T. S., ... & Karam, E. G. (2009). Cross-national associations between gender and mental disorders in the World Health Organization World Mental Health Surveys. *Archives of general psychiatry*, *66*(7), 785-795.

Sen, A. (1987). Gender and cooperative conflicts.

Smith, P. H., & Gittelman, D. K. (1994). Psychological consequences of battering. Implications for women's health and medical practice. *North Carolina medical journal*, *55*(9), 434-439.

Steel, Z., Chey, T., Silove, D., Marnane, C., Bryant, R. A., & Van Ommeren, M. (2009). Association of torture and other potentially traumatic events with mental health

outcomes among populations exposed to mass conflict and displacement: a systematic review and meta-analysis. Jama, 302(5), 537-549.
Stempel, C., Sami, N., Koga, P. M., Alemi, Q., Smith, V., & Shirazi, A. (2016). Gendered sources of distress and resilience among Afghan refugees in Northern California: a cross-sectional study. *International journal of environmental research and public health*, *14*(1), 25
Stein, M. B., & Kennedy, C. (2001). Major depressive and post-traumatic stress disorder comorbidity in female victims of intimate partner violence. *Journal of affective disorders*, *66*(2-3), 133-138.
Stepanikova, I., Bateman, L. B., & Oates, G. R. (2017). Systemic inflammation in midlife: Race, socioeconomic status, and perceived discrimination. American Journal of Preventive Medicine, 52(1, Supplement 1), S63-S76.
Sutin, A. R., Stephan, Y., & Terracciano, A. (2015). Weight discrimination and risk of mortality. Psychological Science, 26(11), 1803-1811.
Syed, M., & Juan, M. J. D. (2012). Discrimination and psychological distress: Examining the moderating role of social context in a nationally representative sample of Asian American adults. *Asian American Journal of Psychology*, *3*(2), 104.
Takeuchi, D. T., Zane, N., Hong, S., Chae, D. H., Gong, F., Gee, G. C., ... & Alegría, M. (2007). Immigration-related factors and mental disorders among Asian Americans. *American Journal of Public Health*, *97*(1), 84-90.
Thompson, V. L. S., Noel, J. G., & Campbell, J. (2004). Stigmatization, discrimination, and mental health: The impact of multiple identity status. *American Journal of Orthopsychiatry*, *74*(4), 529-544.
Torres, L., Driscoll, M. W., & Voell, M. (2012). Discrimination, acculturation, acculturative stress, and Latino psychological distress: A moderated mediational model. *Cultural Diversity and Ethnic Minority Psychology*, *18*(1), 17.
Quesada, J., Hart, L. K., & Bourgois, P. (2011). Structural vulnerability and health: Latino migrant laborers in the United States. *Medical anthropology*, *30*(4), 339-362.
United Nations Children's Fund, & Gupta, G. R. (2013). Female genital mutilation/cutting: a statistical overview and exploration of the dynamics of change. *Reproductive Health Matters*, 184-190.
Unicef, & UNICEF. (2014). Ending child marriage: Progress and prospects. *New York: UNICEF*.https://www.unicef.org/media/files/Child_Marriage_Report_7_17_LR..pdf
United Nations, 2015. The World's Women 2015: Trends and Statistics. New York: United Nations, Department of Economic and Social Affairs, Statistics Division. Sales No. E.15.XVII.8.
Umaña-Taylor, A. J., & Updegraff, K. A. (2007). Latino adolescents' mental health: Exploring the interrelations among discrimination, ethnic identity, cultural orientation, self-esteem, and depressive symptoms. *Journal of adolescence*, *30*(4), 549-567.USAID (2005) A Focus on Gender: Collected Papers on Gender Using DHS Data. Calverton, Maryland, USA: ORC Macro.
USAID (2018). Health and Demographic Surveys. https://dhsprogram.com/What-We-Do/Survey-Types/DHS.cfm

Viens, L. J., Clouston, S., & Messina, C. R. (2016). Women's autonomy and cervical cancer screening in the Lesotho Demographic and Health Survey 2009. *Social Science & Medicine*, *150*, 23-30.

Viruell-Fuentes, E. A. (2007). Beyond acculturation: immigration, discrimination, and health research among Mexicans in the United States. *Social science & medicine*, *65*(7), 1524-1535.

Viruell-Fuentes, E. A., Miranda, P. Y., & Abdulrahim, S. (2012). More than culture: structural racism, intersectionality theory, and immigrant health. *Social science & medicine*, *75*(12), 2099-2106.

Wallace, S., Nazroo, J., & Bécares, L. (2016). Cumulative effect of racial discrimination on the mental health of ethnic minorities in the United Kingdom. *American journal of public health*, *106*(7), 1294-1300.

Williams, D. R., Yu, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health: Socio-economic status, stress and discrimination. *Journal of health psychology*, *2*(3), 335-351.

Williams, D. R., John, D. A., Oyserman, D., Sonnega, J., Mohammed, S. A., & Jackson, J. S. (2012). Research on discrimination and health: an exploratory study of unresolved conceptual and measurement issues. *American Journal of Public Health*, *102*(5), 975-978.

Williams, D. R., & Mohammed, S. A. (2009). Discrimination and racial disparities in health: evidence and needed research. *Journal of behavioral medicine*, *32*(1), 20-47.

Williams, D. R., Kontos, E. Z., Viswanath, K., Haas, J. S., Lathan, C. S., MacConaill, L. E., ... & Ayanian, J. Z. (2012). Integrating multiple social statuses in health disparities research: the case of lung cancer. *Health services research*, *47*(3pt2), 1255-1277.

Williams, D. R., Neighbors, H. W., & Jackson, J. S. (2003). Racial/ethnic discrimination and health: findings from community studies. *American journal of public health*, *93*(2), 200-208.

Women, U. N. (2015). *Progress of the World's Women 2015-2016: Transforming Economies, Realizing Rights* (No. id: 7688)

World Health Organization. (2005). WHO multi-country study on women's health and domestic violence against women: summary report of initial results on prevalence, health outcomes and women's responses.

World Health Organization. (2009). *Women and health: today's evidence tomorrow's agenda*.

Zainiddinov, H. (2016). Racial and ethnic differences in perceptions of discrimination among Muslim Americans. Ethnic and Racial Studies, 39(15), 2701-2721.

Zimmerman, C., Kiss, L., & Hossain, M. (2011). Migration and health: a framework for 21st century policymaking. *PLoS medicine*, *8*(5), e1001034.

Yip, T., Gee, G. C., & Takeuchi, D. T. (2008). Racial discrimination and psychological distress: the impact of ethnic identity and age among immigrant and United States-born Asian adults. *Developmental psychology*, *44*(3), 787.

Yoo, H. C., & Lee, R. M. (2008). Does ethnic identity buffer or exacerbate the effects of frequent racial discrimination on situational well-being of Asian Americans? *Journal of Counseling Psychology*, *55*(1), 63.

Chapter 3- Paper 2 "Perceived discrimination and intra-household inequality among U.S. women "

Introduction

A great number of studies show that more women experience affective and mood disorders such as depression and anxiety than men (Kessler et al., 2005; 2012; McLean et al., 2011) and that the gender gap, relative to women's mental health, is not fully understood (Li & Graham, 2017; Riecher-Rössler, 2017). The differences between men and women start in early life and extend to different risk factors, symptomatology and course of disorders (Howard et al., 2017; Kuehner, 2017; McLean et al., 2008; Riecher-Rössler, 2017) and this gender pattern is found in nearly all nations across the world (Boyd et al., 2015; Salk, Hyde & Abramson, 2017; Kessler, 2007; Seedat et al., 2009).

A substantial body of empirical research has explored factors that could potentially explain women's greater vulnerability to these disorders. These studies showed that women's power differential manifests from early age in higher exposure to violence and trauma including caregiver early life abuse, lifelong adversity and chronic strain that in turn can mean increased sensitivity to stress, lower social status, and potentially, fewer resources to cope (Angst et al., 2002; Hammen, Henry & Daley, 2000; Nolen-Hoeksema, 2001; Piccinelli & Wilkinson, 2000; Van de Velde, Bracke & Levecque, 2010). Previous research studies have also considered the role of discrimination in the development of depression, anxiety, and as a mechanism of health disparities (Kessler, Mickelson & Williams, 1999; Krieger, 1999; 2012; Oh et al., 2014; Paradies, 2006; Parscoe & Richman, 2009; Umaña-Taylor & Updegraff, 2007; Williams & Mohammed, 2009; Williams, Neighbors & Jackson, 2003).

In addition, women experience different forms of discrimination in the public and private spheres throughout their lives. The public sphere includes structural discrimination that can be found in policies, institutions, practices and norms that create social and structural inequalities and also circumstances in which women can experience unfair treatment in interpersonal interactions or can witness discriminatory acts against their group (Caroli & Weber-Baghdiguian, 2016; Jayachandran, 2015; Paradies, 2006; Parscoe & Richman, 2009). In the private sphere, as prescribed by societal gender roles, women can also experience inequality and discrimination as a disproportionate share of household work and caregiving, limited participation in decision making, unequal access and share of financial resources and leisure, and as well as in cases, of emotional, and physical, or sexual abuse (Cerrato, & Cifre, 2018; Sperlich & Geyer, 2015; Staland-Nyman, Alexanderson & Hensing, 2008; Väänänen et al., 2005; Wagman et al., 2017).

Intra-household gender inequality, as a pervasive exposure to a subordinate status

Previous empirical studies found that in the private sphere, intrahousehold processes are important determinants of married or cohabitating partners' physical and mental health and well-being but the consequences can be more important and long lasting for women (Addabbo, Arrizabalaga & Owens, 2016; Chandola et al., 2004a; Griffin et al., 2002; Molarius et al., 2014; Moss, 2002; Sen & Östlin, 2008; Staland-Nyman, Alexanderson & Hensing, 2008b). Inequality in private life is more pronounced in low and middle-income countries and has more severe consequences. However, numerous studies from industrialized, more gender-equal societies including Scandinavian countries have shown that even there, it is an important concern affecting women's lives and health and

wellbeing (Chandola et al., 2004b, United Nations 2015; World Bank, 2012). Inequality between partners in their private life can represent an important constraint on women's agency often meaning less control over their lives, with detrimental effects on their physical and mental health (Chandola et al., 2004a; Cooker et al., 2000; Eek & Axmon, 2015; Moss, 2002; McDonough, Walters & Strohschein, 2002).

Studies from industrialized countries have shown that the most important dimensions of household inequality that are associated with ill physical and mental health are perceived demand overload and power imbalance between partners (Chandola et al., 2004a). For example, studies have shown that women provide more household work than men and even provide the largest share of the time-inflexible housework tasks (Cerrato, & Cifre, 2018; Molarius et al., 2014). Further, women can also face a disproportionate share of responsibilities for child and adult care and support (Leopold, Ratcheva & Zahidi, 2016; Moss, 2002; Samman & Santos, 2009; WHO, 2009). Excessive domestic work, the double burden of full-time work and household responsibilities can have negative physical and mental health consequences for women (Sperlich & Geyer, 2015; Staland-Nyman, Alexanderson & Hensing, 2008; Väänänen et al., 2005; Wagman et al., 2017). Empirical research has also shown that excessive demands at home, family to work spillover and individuals' struggle to fulfill multiple roles simultaneously are associated with higher levels of psychological distress and depressive symptoms, depression, and anxiety (Chandola et al., 2004a; Eek, & Axmon, 2015; Harryson, Strandh & Hammarström, 2012). Inequality between partners may be more pronounced among first- and second-generation immigrant women. It has been shown that traditional, less egalitarian gender roles and various aspects of intra-household gender inequality are reproduced after migration and

even transmitted to the second generation (Blau & Kahn, 2013; Frank & Hou, 2015; Röder & Mühlau, 2014).

Numerous studies have found that women's perception and subjective appraisal of inequality in their relationships and households is a determinant of their mental health and wellbeing. For example, perceived demands from their spouses or partners manifested as role strain was found to be a significant stressor for women affecting their ability to perform other roles and to affect their physical and mental health (Mayor, 2015; Nolen-Hoeksema, 2001; Stevens et al. 2007). Further, perceived unfairness in the division of household responsibilities and changes in the amount of work over women's lifetime appears to contribute to psychological distress and negative health outcomes including self-rated health, fatigue and physical/psychosomatic symptoms (Eek & Axmon, 2015; Harryson, Novo & Hammarström, 2012; Landstedt, Harryson, & Hammarström, 2016). Also, perceptions of excessive demands and of low control over circumstances in their home have been found to double the risk of depression among women and to increase the risk for developing an anxiety disorder (Griffin et al., 2002).

Although numerous studies considered the role of different aspects of household inequality in the development of depression and anxiety the pathways are not well understood. Perception of role strain from a spouse or a partner is a form of inequality and a disadvantaged status, a constraint on the women's agency and can be conceptualized as the experience of a chronic, unfair treatment. Studies have suggested psychological distress as a potential pathway between various aspects of household inequality and subsequent risk for depression and anxiety (Alexanderson & Hensing, 2008; Väänänen et al., 2005). However, few if any studies considered the potential impact of other forms of

unfair treatments experiences simultaneously such as interpersonal discrimination and the extent to which perceived unfair treatment in the public sphere can potentially increase women's vulnerability to the harmful effects of intrahousehold inequality.

Perceived discrimination and depression and anxiety

Empirical research find supporting evidence that exposure to unfair treatment and interpersonal discrimination experienced or witnessed in the public sphere is harmful for individuals' health and wellbeing. The largest amount of evidence linking perceived unfair treatment is related to various mental health outcomes, including depression and anxiety (Gee at al., 2006; 2008; Gee, Laflamme & Holt, 2006; Li & Dong, 2017; Kim & Noh, 2014; Moradi, & Risco, 2006; Paradies et al., 2015; Robinson, Sutin & Daly, 2017; Umaña-Taylor & Updegraff, 2007). Studies have considered the impact of various forms of interpersonal discrimination attributed to personal attributes such as race, gender, age, or social class and manifest in unfair treatment in major experiences of discrimination such as being discouraged from continuing education, being fired, or not being hired for a job, being denied a bank loan, being provided inferior medical care or even being hassled by police. It can also be present in everyday interactions when the person is being treated with less respect, offered poorer service and in general seen as inferior to others (Karlsen, & Nazroo, 2002; Lewis, Cogburn & Williams, 2015; Moradi, & Risco, 2006; Paradies, 2006; Parscoe & Richman, 2009; Schmitt et al., 2002; 2014; Williams, Neighbors, & Jackson, 2003).

Empirical research in this field reveal increased vulnerability to experiences of discrimination among various groups and has suggested the need to consider that

individuals simultaneously occupy multiple disadvantaged statuses and can experience multiple forms of discrimination and oppression based on various attributes simultaneously (Davis, 2008; Green, Evans & Subramanian, 2017; Brown & Richardson, 2016; Williams et al., 2012). Furthermore, studies showed that the same types of discrimination can operate differently across different accumulated forms of disadvantage (Evans et al., 2018; Evans & Erickson, 2019) and that in order to estimate the real harm of discrimination, health research needs to consider unfair treatment that comes simultaneously from all the disadvantaged statuses of an individual and the corresponding cumulative effects (Gkiouleska et al, 2018, Green, Evans, & Subramanian, 2017; Richman & Zucker, 2019; Seng et al., 2012) Findings showed that studies that considered exposure to just one form of disadvantage or that measured discrimination at just one point in time underestimate the effects on health (Grollman, 2012). By contrast, research that explored long term exposure to unfair treatment or simultaneous exposure to multiple forms of discrimination have shown to affect both physical and mental health. Studies suggest that experiencing more frequent and more forms of discrimination ascribed to attributes such as gender, sexual identity, race or social class is associated with self-reported physical health problems and depressive symptoms and also that there is a dose response relationship between more forms of discrimination experienced simultaneously and increased symptoms of depression (Grollman (2012). Similarly, more forms and more long-term, chronic exposure are associated, in a dose-response fashion with health outcomes such as activity limitations, depression and psychological distress, poor physical health (Grollman, 2014; Cormack, Stanley & Harris, 2018) and also with increased perceived severity and stressfulness of unfairness that is experienced in everyday interpersonal interactions (Grollman, 2014).

The limited research in the field of cumulative discrimination provides increasing evidence of the need to consider the importance of both differential exposure to interpersonal discrimination and of differential heterogeneous effects across groups (Carr et al., 2013; Evans et al., 2018; Grollman, 2012; Gkiouleska et al, 2018, Williams, 1999). Further, the consequences of cumulative disadvantage require an understanding that occupying multiple disadvantaged statuses can create a space where mechanisms and pathways can operate differently across groups (Gkiouleska et al, 2018). Previous cross-sectional and longitudinal studies that considered the experiences of women and explored their potential increased vulnerability when they are exposed to more forms of discrimination simultaneously found a cumulative effect, in a dose-response fashion, similar to trauma. Further, studies have also shown that perceived pervasiveness of one form of discrimination can increase vulnerability to the effects of other forms of discrimination that are experienced simultaneously and more severe consequences of the cumulative effect. For example, one study found that perceived pervasiveness of gender discrimination personally or against other women has been found to be more harmful for women's health and wellbeing than among those only experiencing individual, isolated instances of unfair treatment (Schmitt et al., 2014). Most studies in the field considered the cumulative effects of unfair treatment based on simultaneously experiencing discrimination based on clearly defined statuses for example race, gender, and low social-economic status and the corresponding race, gender, and social class discrimination (Grollman, 2012, 2014). Other studies examined the joint effects of perceived discrimination without stipulating a specific reason and of other forms of unfair treatment that were a consequence of other kinds of disadvantage and that were

experienced simultaneously such as racial segregation, neighborhood stress, work stressors, discrimination, violence or other major experiences like being a victim of a physical attack, being robed, losing a job, or being forced to retire (Lewis, Cogburn & Williams, 2015; Slopen et al., 2014; Sternthal, Slpen & Williams, 2011). It appears that no studies have considered the role of perceived discrimination in everyday interactions and perceived strain from a spouse or partner in the development of depression and anxiety.

Eco-social theory and two threatening, subordinate statuses

Eco-social theory posits that human beings embody the world that they live in through multiple pathways created throughout their lives. According to this theory, lived inequalities and traumatic experiences become ingrained in persons' biology and their bodies will tell their life stories manifested in ill health (Krieger 1999; 2011). This theory suggests that women will embody these constraints and the interaction of these experiences of inequality will affect their health (Krieger, 1999, 2011, 2012). Women's health cannot be extricated from all their social arrangements and social norms. Research on women's health must consider the importance of the private and public spheres of their lives and the complex interaction of gender and other forms of social identities with their inequalities and statuses. This paper presents two short studies. The aims of these studies are:

Study 1 explores the joint effects of perceived discrimination in social interactions and household gender inequality, measured as perceived role strain in developing major depression or generalized anxiety disorder in the past year among women and men, using a nationally representative survey of U.S adults (2011-2014 MIDUS Refresher). Further,

it will examine if perceiving role strain from a partner or a spouse or perceived discrimination in everyday interactions may result in greater vulnerability and subsequent risk of depression and anxiety disorders among foreign born respondents, by testing the interaction between role strain and foreign-born status and perceived discrimination and foreign born status.

Study 2 uses a subsample of the previous study, respondents that participated in a follow-up project (2011-2014 MIDUS Refresher –2011-2016 Biomarker Project) to explore a potential underlying pathway linking perceived role strain to more severe symptoms of depression and anxiety. The study will explore the potential mediating role of perceived stress on depression and anxiety and the possible presence of a conditional indirect effect respectively the potential moderating role of perceived discrimination.

Method

Sample and procedure

This paper uses data from the 2011-2014 Midlife in the United States (MIDUS) Refresher survey for study 1 and from the 2012-2016 MIDUS Refresher Biomarker Project for study 2 (Ryff et al. 2016; Weinstein, Ryff & and Seeman, 2016). The 2011-2014 MIDUS Refresher survey is part of a series of surveys conducted by the MacArthur Foundation Research Network on Successful Midlife Development. The first survey, MIDUS I was conducted in 1995/96 and the second and third in 2002-2006 and 2011-2014 (in process). The objectives of these surveys was to investigate the role of behavioral, psychological, and social factors in accounting for age-related variations in health and well-being in a national sample of Americans. The 2011-2014 MIDUS Refresher is a replica, with matching criteria of the previous study, of the MIDUS 1, with the goal to examine

period effects on physical health and mental health and also the potential consequences of the economic recession (Ryff et al. 2016). The MIDUS Refresher recruited and collected data that included demographic, psycho-social, and physical and mental health information from a nationally representative sample of 3577 adults, with ages between 25 to 75. The study population was derived from two independent samples, one of English-speaking adults aged 25-54 living in residential housing units in the U.S recruited in 2011 and one sample with 1400 older adults between ages 55 to 74 collected in 2013. Study participants were first interviewed over a 45- minute telephone interview and after, a 108-page self-administered questionnaire was mailed to the participants. Among study participants, 73% returned the self-administered questionnaire. A subsample of the MIDUS Refresher sample (N=863) participated in the MIDUS Refreshed 2012-2016 Biomarker project and this part of the study collected comprehensive biological assessments to explicate biopsychosocial pathways that contributed to diverse health outcomes. The MIDUS Refresher was funded by the National Institute on Aging and the study is publicly available and was obtained from Interuniversity Consortium for Political and Social Research (ICPSR).

Measures

Dependent variables: For study 1: The two outcome variables of this study are depression and anxiety. For depression, respondents were asked if in the past 12 months they experienced two weeks of depressed affect or anhedonia with the following questions: "During two weeks in the past 12 months, when you felt sad, blue, or depressed" and/or anhedonia: "During two weeks in the past 12 months, when you lost interest in most things?" Two dichotomous variables were created separately for depressed affect and for

anhedonia, if the person had a score greater than 4 on the scale and if the symptoms lasted "all day long" or "most of the day" and if the respondent reported as feeling like this "everyday "or "almost every day". The respondent was considered as reporting depression if one of the two dichotomous variables was equal to 1. For anxiety, respondents were asked how frequently in the past 12 months they were restless because of worry, had trouble falling asleep, were low on energy, etc. The scale was constructed by adding up the total number of "most days" responses for the items of the scale. A score of higher than 3 was coded as a dichotomous variable and considered that the respondent reported generalized anxiety disorder. These scales are both a short version of the World Health Organization's composite international diagnostic interview (WHO, 1990; Kessler et al., 1998) and has shown good test-retest reliability and clinical validity of these CIDI diagnoses (Blazer et al., 1994; Kessler, Mickelson & Williams, 1999; Wittchen, 1994).

For study 2: Depression: The Center for Epidemiological Studies depression inventory (CES D) was used to evaluate the severity of respondents' depression symptoms (Devins & Orme, 1985; Radloff, 1977; Roberts & Vernon, 1983). The scale has 20 items and asks study participants to rate if they experienced such symptoms: they felt bothered by things; did not feel like eating; felt that they could not shake off the blues even with the help of family and friends. The Cronbach's alpha for this scale in this sample was reported as 0.88. Anxiety symptoms were measured using the Spielberger' Trait anxiety inventory (Spielberger, 1983; Spielberger, 1989). The scale has 20 items and asks study participants to rate if they experienced such symptoms such as they felt tired quickly, felt like crying or ty to avoid facing crisis or difficulty. The Cronbach's alpha for this scale in this sample was reported as 0.90. Perceived stress was measured using a 10 item scale that asked

participants if, in the past month, they experienced feeling unable to control the important things in their lives, felt nervous and stressed or felt confident about their ability to handle their personal problems (Cohen, Kamarch & Mermelstein, 1983; Cohen & Williamson, 1988). The Cronbach's alpha for this scale in this sample was reported as 0.85.

Independent variables for study 1: Perceived discrimination referred to chronic experiences of unfair treatment in interpersonal, everyday interactions. Perceived everyday discrimination was measured using the Everyday Discrimination Scale (EDS) from the Detroit Area Study Questionnaire (Williams, Jackson & Anderson, 1997). Respondents were asked how frequently (often, sometimes, rarely or never) they experienced discrimination in daily interactions over their lifetime. The question was: "How often on a day-to-day basis do you experience each of the following types of discrimination?". The discriminatory acts were for example, being treated with less courtesy than other people or with less respect, or being called names, insulted or threatened or harassed. The scale has 9 items representing discrimination experiences and it is constructed by summing up the items. The possible scores range from 9 to 36, 9 representing no instances of discrimination and higher scores represented higher levels of perceived interpersonal discrimination. The Cronbach's alpha for this scale in this sample was 0.92. Household conditions included two caregiving roles and perceived role strain from spouse or partner. The two caregiving roles were represented by the presence of children under the age of 18 in the home and caregiving for an ill family member. Presence of children in the household was a binary variable (yes/no) representing if the respondent had any children under the age of 18 living in their household. The other caregiving role was having offered personal care to a family member or a friend in the past year and it was also a binary variable (yes, no). This variable

was measured by asking the question: “Sometimes because of a physical or mental condition, illness, or disability, people have trouble taking care of themselves and require the assistance of friends or relatives. During the last 12 months have you, yourself, given personal care for a period of one month or more to a family member or friend because of a physical or mental condition, illness, or disability?” The last household variable was perceived strain from a spouse or partner, and it was measured using a scale with 6 items. Respondents were asked how frequently (often, sometimes, rarely, never) their spouse or partner manifested behaviors such as making too many demands on them, criticizing them, letting them down when they were counting on him or her or getting on their nerves. The Cronbach’s alpha for this scale in this sample was 0.87. Demographic covariates included in study 1: age (continuous), race was measured by respondent self-identification (White, African American and other minority), education was measured as a scale and included the following categories high school or less, some college, no degree, college degree and graduate school, employment status (binary variable) and the income (Ln) representing the total household income from all sources in the previous year. Study 2: the covariates that were controlled for in both the mediation and moderation paths were age, gender, race and education.

Analytic strategy

Study 1: The complex sample module of SPSS 24 was used for all analysis to accommodate the complex sample data of the MIDUS (Refresher). Descriptive (weighted) and bivariate statistics (t test and chi square) were used to describe the sample and logistic regression models to evaluate the effect of household inequality and perceived discrimination on depression and anxiety. Missing data was addressed using standard

methods of multiple imputations. Analysis of patterns showed that only two data items were missing (missing at random, no patterns) - household income and employment status. All variables included in the analysis were used as predictor variables in the imputation. The moderation analysis in the logistic regression used mean centered variables to prevent multicollinearity.

Study 2: First, Pearson correlation was used to evaluate the bivariate correlations between variables. PROCESS Macro 3 for SPSS, model 4 and 58 were used for the mediation and moderated mediation analysis (Hayes, 2017). The 95% confidence intervals were calculated with 5000 bias-corrected bootstrap samples. All mediation and moderation models were adjusted for sociodemographic correlates, age, gender, race and education. The conditional indirect effects were assessed using the pick-a-point approach. The values selected to test the moderation were one standard deviation below and one standard deviation above the mean for the moderator, perceived discrimination. Plots were generated to visually represent the conditional indirect effect.

Results

Descriptive statistics are presented in Table 3.1. Study 1 included married or cohabitating study participants from the main MIDUS Refresher study. The analytic sample included 1749 respondents and among them 48.6 % (SE: 1.3) were women and 51.4 % (SE: 1.3) were men. Their age ranged from 24 to 76 with a mean age of 50 (SE: 0.3) and the largest group was White (87.9%, SE:0.9), followed by African Americans (5.4%, SE:0.7) and other races (6.7%, SE:0.6). Among them, (4.8%, SE:0.5) were foreign born, first generation immigrants. More than one third of the sample had a high school

degree or less (35.6%, SE:1.4), 26.5% (SE:1.1) some college and 37.9% (SE:0.9) a college degree or more and men were slightly more educated than women ($t=-2.5$, $p<0.01$). In this analytic sample, 15.5% (SE:1.5) of women and 8.5% (SE:1.1) of men were found to meet criteria for major depression in the past year and 3% (SE:0.6) of women and 2.9% (SE:1.5) of men for generalized anxiety disorder in the past year. About 40% (SE:1.3) of the sample reported no instances of perceived discrimination. The scores on the perceived discrimination scale ranged from 9 to 32 with a mean score of 12.9 (SE:0.1). Women ($t=3.2$, $p<0.01$) reported statistically significant higher mean levels of perceived everyday discrimination than men.

Among household conditions, half of women and men reported to have children under the age of 18 living in their household and approximately 14.2 % (SE:1.4) of women and 10.4% (SE:1.1) of men reported to have had a caregiver role and had given personal care for a period of one month or more to a family member or friend in the year prior to the survey. There were no statistically significant differences between mean levels of perceived strain from a partner or a spouse between women and men.

Study 2 included a subsample from study 1, respectively study participants from the MIDUS Refresher study that participated in the MIDUS Refreshed Biomarker project 2012-2016. The Biomarker project collected comprehensive biological assessments from a subset of the sample (N=863) and study 2 included the 518 respondents that were married or were cohabitating among them.

Table 3.1. Descriptive statistics (N=1749)

	Mean or % (SD) and Range	Mean or % (SD) and Range	Mean or % (SD) and Range
		Women	Men
Health outcomes			
Depression		15.5% (SE:1.5)	8.5% (SE:1.1)
Anxiety		3% (SE:0.6)	2.9% (SE:1.5)
Sociodemographic			
Age	24-76 50 (0.7)		
Women	48.6 % (SE:1.3)		
Men	51.4 %(SE:1.3)		
Race			
African American	5.4 % (SE:0.7)		
White	87.9 % (SE:0.9)		
Other minority	6.7 % (SE:0.6)		
Immigrant, first generation	4.8 % (SE:0.5)		
Education			
High school or less	35.6% (SE:1.4)		
Some college, no degree	26.5 % (SE:1.1)		
University degree or graduate school	37.9 % (SE:0.9)		
Discrimination			
Perceived discrimination		13.3 (SE:0.18), 9-31	12.62 (SE:0.17), 9-32
Employment			
Employed	62.8 % (SE: 1.3)		

Table 3.1 (Continued)		
Household inequality		
Perceived role strain from spouse of partner	2.12 (SE:0.2), 1-4	2.14 (SE:0.2), 1-4
Presence of children under 18 in household	49.80 % (SE:2)	49.40 % (SE:1.8)
Caregiver role in the past year	14.2 % (SE:1.4)	10.4% (SE:1.1)

Weighted estimates (percentages and standard errors) of the sample are adjusted for complex survey design.

Results for study 1:

Regression: The results of the two logistic regression are presented in Table 3.2 and 3.3. Model 1 explored the bivariate association of perceived discrimination in everyday interactions and depression and anxiety. Model 2 adjusted for covariates and added the household variables to examine the joint effect of experiencing interpersonal discrimination and household inequality on the two mental health outcomes.

Perceived chronic, everyday discrimination and depression

Table 3.2 shows that at bivariate level perceived everyday discrimination was significantly associated with depression for women (OR=1.112, $p < 0.001$) and men (OR=1.114,$p < 0.001$) such that higher levels of perceived discrimination were associated with a higher likelihood of experiencing depression. Model 2 added the household variables and considered the joint effect of experiences of chronic, everyday discrimination and household inequality. In the multivariate analysis, perceived discrimination was still associated with depression among both women (OR=1.061, $p < 0.05$) and men (OR=1.076, $p < 0.05$). The association was still positive and higher levels of perceived chronic,

everyday discrimination were associated with a higher likelihood of experiencing major depression in the past year. Perception of role strain from a spouse or a partner was also positively associated with depression for both genders. The analysis showed that higher levels of perceived strain increased the likelihood of experiencing depression for both women (OR=1.918, p<0.001) and men (OR=2.421, p <0.001) and the association was stronger for men. Offering care for more than one month in the past year (OR=2.903, p <0.01) was associated with increased odds of depression among men. When compared with men who did not have a caregiving role, men who offered personal care for a period of one month or more to a family member or friend because of a physical or mental condition, illness, or disability were almost three times more likely to meet criteria for depression. Higher levels of education showed a protective effect reflected in lower odds of depression among both women (OR=0.890, p <0.05) and men (OR=0.894, p <0.05). Older age was associated with higher likelihood of depression among both women (OR=0.978, p <0.05) and men (OR=0.952, p <0.001). The analysis also tested the interaction of foreign-born status and perceived discrimination and strain, to explore the potential increased vulnerability of foreign-born respondents. The only significant interaction was between foreign born status and perceived role strain among men and showed that at higher levels of perceived role strain immigrant men (OR=2.572, p <0.05) are more likely than U.S born men to experience depression.

Perceived chronic, everyday discrimination and anxiety

Table 3.3 shows that at bivariate level perceived everyday discrimination was significantly associated with anxiety among both women (OR=1.104, p <0.001) and men (OR=1.096, p <0.001) such that higher levels of perceived discrimination were associated

with a higher likelihood of experiencing anxiety. Model 2 added the household variables and considered the joint effect of experiences of chronic, everyday discrimination and household inequality. In the multivariate analysis, perceived everyday discrimination was no longer associated with anxiety. Perception of role strain from a spouse or a partner was positively associated with anxiety among both women (OR=2.201, $p < 0.01$) and men (OR=3.711, $p < 0.01$). The analysis showed that higher levels of perceived strain were associated with an increased likelihood of experiencing anxiety for both women and men and similarly to depression, the association was stronger for men. Higher levels of education showed a protective effect reflected in lower odds of anxiety but only among men (OR=0.911, $p < 0.001$) and age increased the risk and was associated with higher likelihood of anxiety among both women (OR=0.951, $p < 0.05$) and men (OR=0.911, $p < 0.001$). The analysis also tested the interaction of foreign-born status and perceived discrimination and strain, to explore the potential increased vulnerability of foreign-born respondents. No interactions were statistically significant.

Table 3.2 Multiple logistic models of association between perceived everyday discrimination, perceived role strain and depression

	Women		Men	
Discrimination				
Perceived everyday discrimination	1.112***	1.061*	1.114***	1.076*
Perceived role strain from spouse/partner		1.918***		2.421***
No children in household (Ref)				
1-2 children		0.949		0.501
3 or more children		0.995		0.569
No caregiving (Ref)				
Caregiver role in the past year		1.792		2.903**
Age		0.978*		0.952***
White (Ref)				
Minority		0.860		1.183
U.S born (Ref)				
Foreign born		1.024		1.077
Highest level of education		0.890*		0.894**
Income (Ln)		0.930		0.958
In labor force (Ref)				
Not in labor force		1.503		1.639
Role strain X Foreign-born				2.572 *

Values represent odds ratios and the following significance levels *** p <0.001 **p <0.01, * p <0.05 +p < 0.10

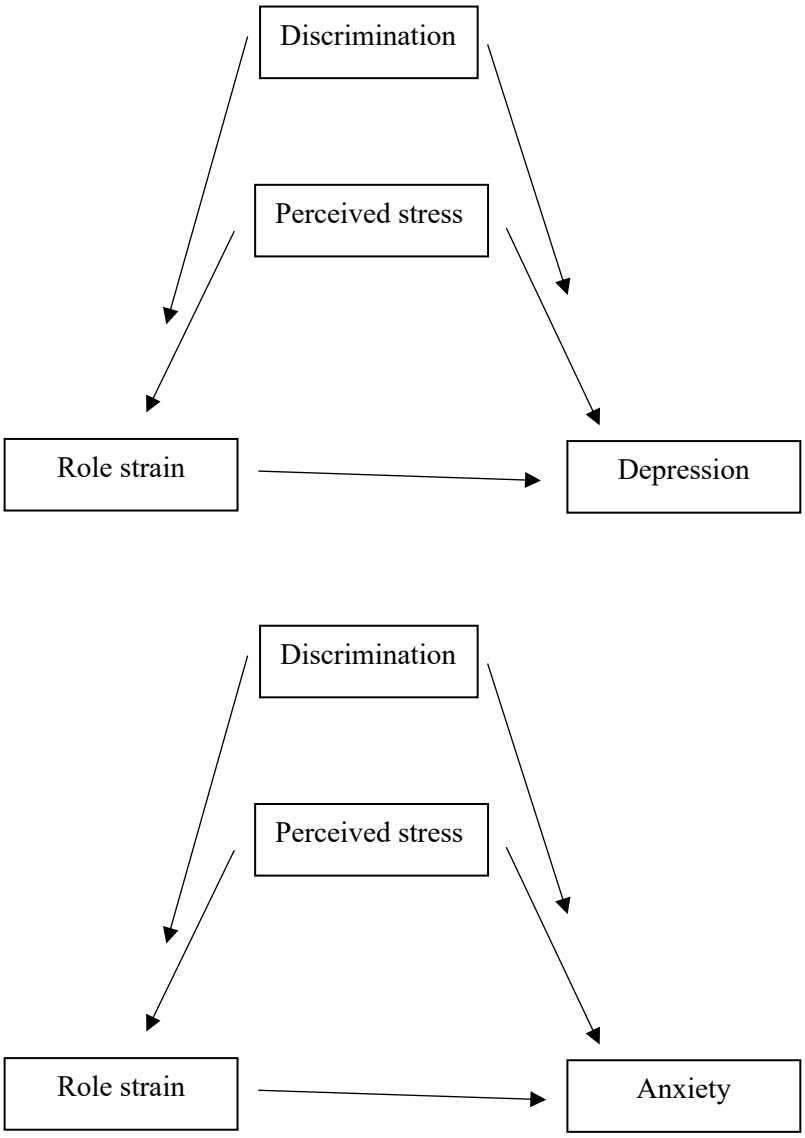
Table 3.3 Multiple logistic models of association between perceived everyday discrimination, perceived role strain and anxiety

	Women		Men	
Discrimination				
Perceived everyday discrimination	1.104***	1.091	1.096***	1.046
Perceived role strain from spouse/partner		2.201**		3.711**
No children in household (Ref)				
1-2 children		0.321		0.396
3 or more children		0.283		0.480
No caregiving (Ref)				
Caregiver role in the past year		0.906		0.135
Age		0.951*		0.911***
White (Ref)				
Minority		2.944		1.344
U.S born (Ref)				
Foreign born		0.072		1.390
Education				
Highest level of education		0.996		0.681**
Income (Ln)		0.895		1.045
In labor force (Ref)				
Not in labor force		1.659		3.644

Values represent odds ratios and the following significance levels *** p <0.001 **p <0.01, * p <0.05 +p < 0.10

Results for study 2:

Fig. 3.1 Hypothesized conceptual model of the moderated mediation (for depression and anxiety symptoms). Perceived stress is examined as a mediator of the relation between role strain and symptoms of depression and anxiety. Perceived discrimination is shown as a moderator of the relation between role strain and perceived stress and between perceived stress and symptoms of depression or anxiety.



Bivariate correlation analysis

Table 3.4 and Table 3.5 presents the mean, standard deviation, and correlation coefficients of all variables included in the analysis. The analysis showed that all variables were significantly and positively associated with the two dependent variables, depression and anxiety. Perceived role strain was positively associated with perceived stress, the hypothesized mediator ($r=0.31$, $p<0.01$) with a moderate effect size and perceived stress was positively associated with a large effect size with both health outcomes, respectively with depression ($r=0.75$, $p<0.01$) and anxiety ($r=0.78$, $p<0.01$).

Table 3.4. Means, standard deviations, and Pearson correlations among depression and perceived role strain, perceived stress and discrimination

Variable	*M*	*SD*	*1*	*2*	*3*	*4*
1.Depression	9.25	7.89				
2 Strain	2.15	0.64	0.31*			
3 P Stress	22.48	6.36	0.75*	0.37*		
4 Discrimination	13.07	4.87	0.31*	0.18*	0.27*	-

* Correlations significant at 0.01 (2 tailed)

Table 3.5. Means, standard deviations, and Pearson correlations among anxiety and perceived role strain, perceived stress and discrimination

Variable	*M*	*SD*	*1*	*2*	*3*	*4*
1Anxiety	9.25	7.89				
2 Strain	2.15	0.64	0.34*			
3 P Stress	22.48	6.36	0.78*	0.37*		
4 Discrimination	13.07	4.87	0.26*	0.18*	0.27*	-

* Correlations significant at 0.01 (2 tailed)

Testing for the mediation effect

The mediating effect of perceived stress on the relationship between role strain and depression and anxiety symptoms was examined. The demographic variables included in testing these paths were gender, age, race, and education. The results of the relations between role strain, perceived stress and depressive and anxiety symptoms are presented in Table 3.5 and 3.6. For depressive symptoms: The results showed that role strain was significantly associated with perceived stress (b=3.33, SE=0.37, 95% CI= [2.59, 40.7], p <0.001) and perceived stress with depression (b=0.80 SE=0.03, 95% CI= [0.72, 0.87], p <0.01). Both associations were positive showing that higher levels of role strain predicted higher levels of perceived stress and higher levels of perceived stress higher levels of depressive symptoms. The indirect effect of role strain on depression via perceived stress was statistically significant showing that perceived stress mediated that relationship (b=2.67 SE=0.38, 95% CI= [1.96, 3.46]). Further, the direct effect between role strain and depression given perceived stress was not statistically significant showing that complete mediation occurred. The total indirect effect of role strain on depression was 0.72.

For anxiety symptoms: The results showed that role strain was significantly associated with perceived stress (b=3.33, SE=0.37, 95% CI= [2.59, 40.7], p <0.001) and perceived stress with anxiety (b=1.03 SE=0.04, 95% CI= [0.94, 1.12], p <0.001). Both associations were positive showing that higher levels of role strain predicted higher levels of perceived stress and higher levels of stress higher levels of anxiety symptoms. The effect of role strain on anxiety was mediated by perceived stress (b=3.45 SE=0.50, 95% CI= [2.49, 4.48]). Further, the direct effect between perceived role strain and anxiety was

statistically significant (b=0.99 SE=0.43, 95% CI= [0.14, 1.83], p <0.05), showing that only partial mediation occurred. The total indirect effect of role strain on anxiety was 0.75.

Table 3.6 Mediation- Association between depression and role strain and perceived stress

	Model 1			*Model 2*		
	B(SE)	*95%CI*	*p-values*	*B(SE)*	*95%CI*	*p-values*
Role strain	3.33 (0.37)	2.5930, 4.0751	<0.001	0.53 (0.35)	-0.1699, 1.2427	0.13
Age	-0.08 (0.18)	-.1172, -.0440	<0.001	-0.005 (0.01)	-0.0388, 0.0273	0.73
Race	0.17 (0.67)	-1.1408, 1.4943	0.79	1.28 (0.59)	0.1108, 2.4492	<0.05
Gender	1.38 (0.49)	.4122, 2.3588	<0.01	-0.109 (0.44)	-0.9794, 0 .7613	0.80
Education	-0.33 (00.10)	-.5412, -.1307	<0.01	-0.81 (0.9)	-0.2651, 0 .1029	0.38
Perceived Stress				0.80 (0.3)	0.7252, 0.8798	<0.01

Abbreviations: SE standard error, CI, confidence interval

Model 1 Perceived stress regressed on role strain, age, race, gender and education

Model 2 Depression regressed on perceived stress, role strain, age, race, gender and education

Table 3.7- Mediation- Association between anxiety and role strain and perceived stress

	Model 1			*Model 2*		
	B(SE)	*95%CI*	*p-values*	*B(SE)*	*95%CI*	*p-values*
Role strain	3. 33 (0.37)	2.5930, 4.0751	<0.001	0.99(0.43)	.1461 1.8383	<0.05
Age	-0.08 (0.01)	-0.1172, -.0440	<0.001	-0.03 (0.02)	-0.0702, 0.0089	0.12
Race	0.17(0.67)	-1.1406, 1.4943	0.79	0.27 (0.71)	-1.1256, 1.6756	0.69
Gender	1.38(0.49)	0.4122, 2.3588	<0.01	-0.03 (0.53)	-1.0783, 1.0068	0.94
Education	-0.33 (0.10)	-0.5412, -0.1307	<0.01	-0.09 (0.11)	-0.3136, 0 .1272	0.40
Perceived Stress				1.03(0.04)	0.9424, 1.1276	<0.001

Abbreviations: SE standard error, CI, confidence interval

Model 1 Perceived stress regressed on role strain, age, race, gender and education

Model 2 Anxiety regressed on perceived stress, role strain, age, race, gender and education

Testing of the moderated mediation for depressive symptoms

Process model 58 with 5000 bias-corrected bootstrap sample was applied to estimate the moderated mediation. The analysis tested if perceived discrimination moderated the association between role strain and perceived stress and between perceived stress and depression, controlling for age, gender, race and education. The analysis showed that perceived discrimination moderated both paths. More precisely, both interactions were statistically significant, respectively the interaction effect of role strain and discrimination on perceived stress (b=0.17 SE= 0.7, 95% CI= [0.01,0.32], p <0.05) and the interaction of perceived stress and discrimination on depression (b=0. 014 SE= 0.007, 95% CI=[0.0008, 0.02], p <0.05). The pick-a- point approach was used to describe the conditional indirect effects at minimum value of the moderator, at the mean and at 1 SD above the mean. The conditional indirect effect of role strain on depression through perceived stress was significant at the low (b=2.35, SE=0.47, 95% CI=[1.42, 3.28], middle (b=2.96 SE=0.37, 95% CI= [2.23, 3.70] and at higher levels of perceived discrimination (b= 3.75 SE=0.50, 95% CI=[2.75, 4.75]. Similarly, the conditional indirect effect of the path between perceived stress and depression was significant at low (b=0.72, SE=0.04, 95% CI=[0.62, 0.82], middle (b=0.77 SE=0.04, 95% CI= [0.69, 0.85] and at higher levels of perceived discrimination (b= 0.84, SE=0.04, 95% CI=[0.74, 0.93]. These results suggest that individuals with higher levels of perceived role strain report higher levels of stress if they perceive higher levels of discrimination and higher levels of stress will predict higher levels of depressive symptoms if individuals perceive higher levels of discrimination.

Testing of the moderated mediation for anxiety symptoms

Process model 58 with 5000 bias-corrected bootstrap sample was applied to estimate the moderated mediation respectively to test if perceived discrimination moderated the association between role strain and perceived stress and between perceived stress and anxiety, controlling for age, gender, race and education. The analysis showed that perceived discrimination moderated only the first path. The interaction effect of role strain and discrimination on perceived stress was significant (b=0.17 SE= 0.07 95% CI= [0.01, 0.32], p <0.05). Perceived discrimination did not moderate the path between perceived stress and anxiety. The pick-a-point approach was used to describe the conditional indirect effect at the minimum levels of the moderator, at the mean level and at 1 SD above the mean. The indirect effect of role strain on anxiety through perceived stress was significant at low (b=2.35 SE=0.47, 95% CI=[1.42,3.28], middle (b=2.96 SE=0.37, 95% CI= [2.23, 3.70] and at higher levels of perceived discrimination (b= 3.75, SE=0.50, 95% CI= [2.75,4.75]. These results suggest that individuals with higher levels of perceived role strain report higher levels of stress if they perceive higher levels of discrimination.

Table 3.8 Testing the moderating effect of discrimination on perceived strain and perceived stress for depression

	Model 1			*Model 2*		
	B(SE)	*t*	*p-values*	*B(SE)*	*t*	*p-values*
Role strain	2.96 (037)	7.92	<0.001	0.42 (0.36)	1.18	0.23
Age	-0.071 (0.18)	-3.88	<0.001	-0.004 (0.01)	-0.23	0.81
Race	-0.62 (0.67)	-0.92	0.357	0.97 (0.61)	1.60	0.10
Gender	1.19 (0.48)	2.45	<0.05	-0.90 (0.44)	-0.20	0.83
Education	-0.30 (0.10)	-2.97	<0.01	-0.06 (0.09)	-0.68	0.49
Discrimination	0.24 (0.05)	4.35	<0.05	0.08 (0.05)	1.66	0.09
Discrimination X Role strain	0.17 (0.07)	2.19	<0.05			
Perceived Stress				0.77 (0.04)	19.18	<0.001
Discrimination X Perceived stress				0.014 (0.007)	2.07	<0.05

Model 1 Perceived stress regressed on role strain, age, race, gender and education and the interaction of role strain and discrimination

Model 2 Depression regressed on perceived stress, role strain, age, race, gender and education and the interaction of perceived stress and discrimination

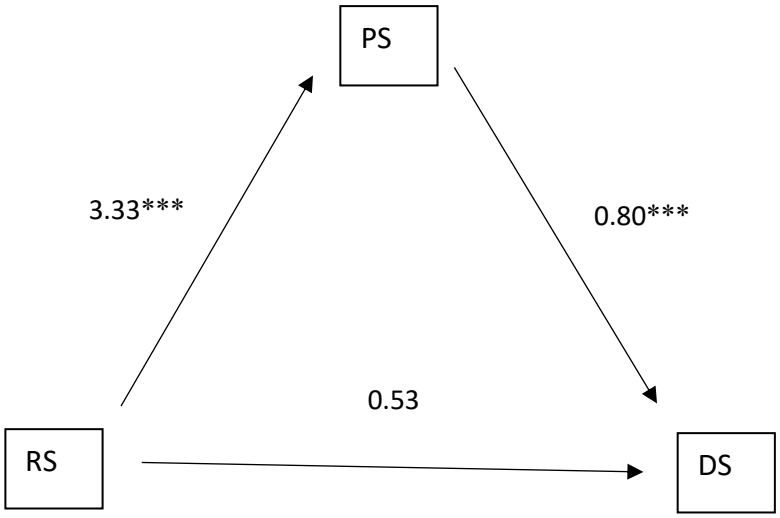
Table 3. 9 Testing the moderating effect of discrimination on perceived strain and perceived stress for anxiety

	Model 1			*Model 2*		
	B(SE)	*t*	*p-values*	*B(SE)*	*t*	*p-values*
Role strain	2.96 (0.37)	7.92	<0.001	0.93 (0.43)	2.14	<0.05
Age	-0.07 (0.01)	-3.88	<0.001			
Race	-0.62 (0.67)	-0.92	0.35	0.079 (0.73)	0.10	0.91
Gender	1.19 (0.48)	2.45	<0.01	-0.05 (0.53)	-0.102	0.91
Education	-0.30 (0.10)	-2.97	<0.01	-0.08 (0.11)	-0.75	0.45
Discrimination	0.24 (0.05)	4.35	<0.001	0.06 (0.6)	0.96	0.33
Discrimination X Role strain	0.17 (0.07)	2.19	<0.05			
Perceived Stress				1.018 (0.04)	20.8	<0.001
Discrimination X Perceived stress				0.004 (0.08)	0.49	0.61

Model 1 Perceived stress regressed on role strain, age, race, gender and education and the interaction of role strain and discrimination

Model 2 Anxiety regressed on perceived stress, role strain, age, race, gender and education and the interaction of perceived stress and discrimination

Fig. 3.2. Path coefficients for the mediation model.
Note: *** indicates statistically significant (P<0.001); ** indicates statistically significant (P<0.01) *(P<0.05) RS: role strain; PS: perceived stress; DS: depressive symptoms; AX: anxiety symptoms.



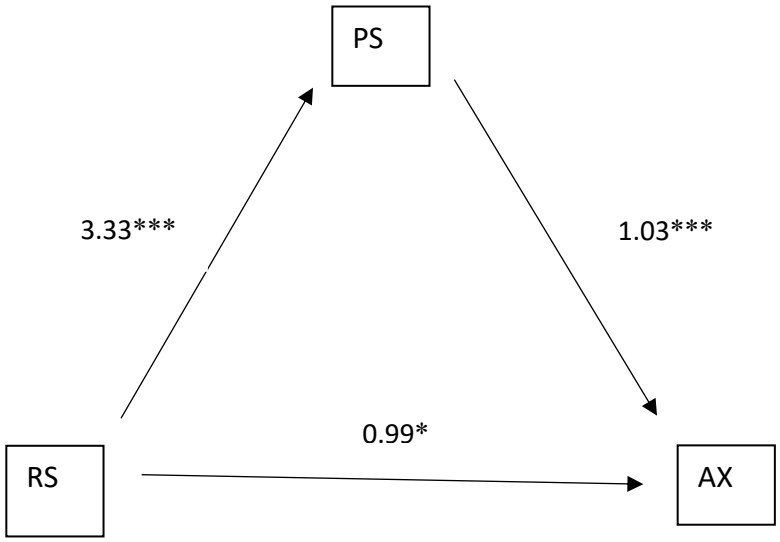


Fig. 3.3. Path coefficients for the moderated mediation model for depression.
Note: *** indicates statistically significant (P<0.001); * indicates statistically significant (P<0.05) RS: role strain; PS: perceived stress; DS: depressive symptoms; PD: perceived discrimination.RSPD: interaction term between role strain and perceived discrimination; PSPD: interaction term between perceived stress and perceived discrimination.

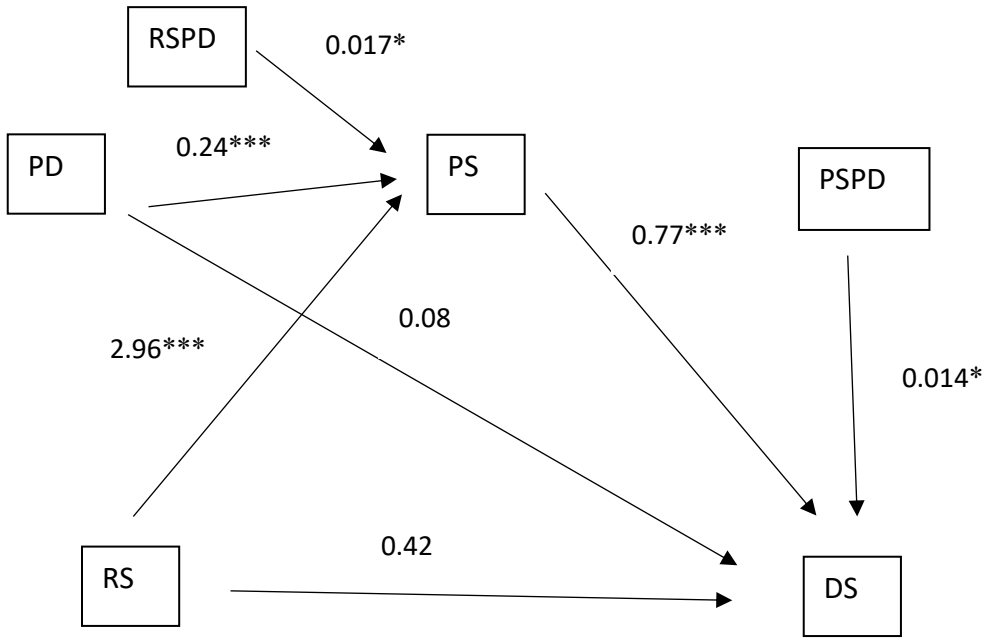
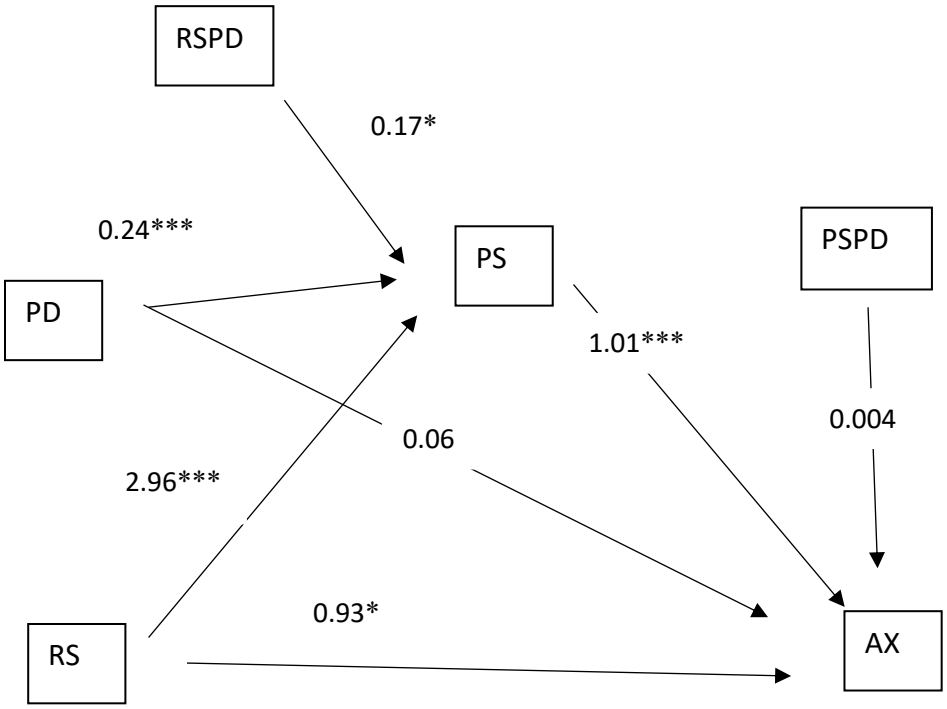


Fig. 3.4. Path coefficients for the moderated mediation model for anxiety.
Note: *** indicates statistically significant (P<0.001); * indicates statistically significant (P<0.05) RS: role strain; PS: perceived stress; AX: anxiety symptoms; PD: perceived discrimination.
RSPD: interaction term between role strain and perceived discrimination; PSPD: interaction term between perceived stress and perceived discrimination.



Testing the conditional indirect effect

The conditional indirect effects were assessed with the pick- a-point approach and low levels of discrimination and high levels of discrimination were considered, respectively minimum observed value, mean value of the moderator and at one standard deviation above the mean. Plots were generated to visually present the conditional indirect effects in Fig. 3.5, 3.6 and 3.7.

Fig.3.5 Moderating effect of discrimination on perceived stress.

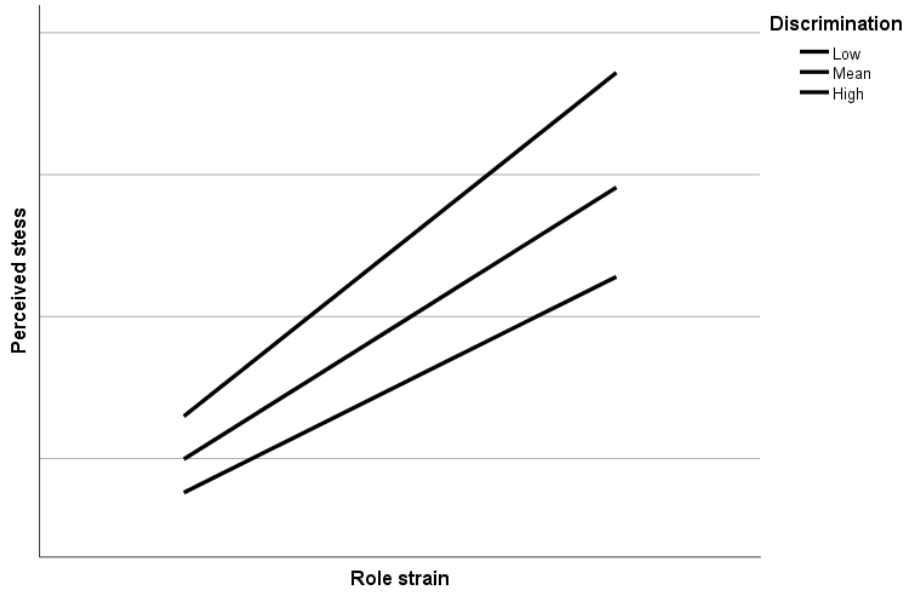


Fig. 3.6 Moderating effect of discrimination on depression.

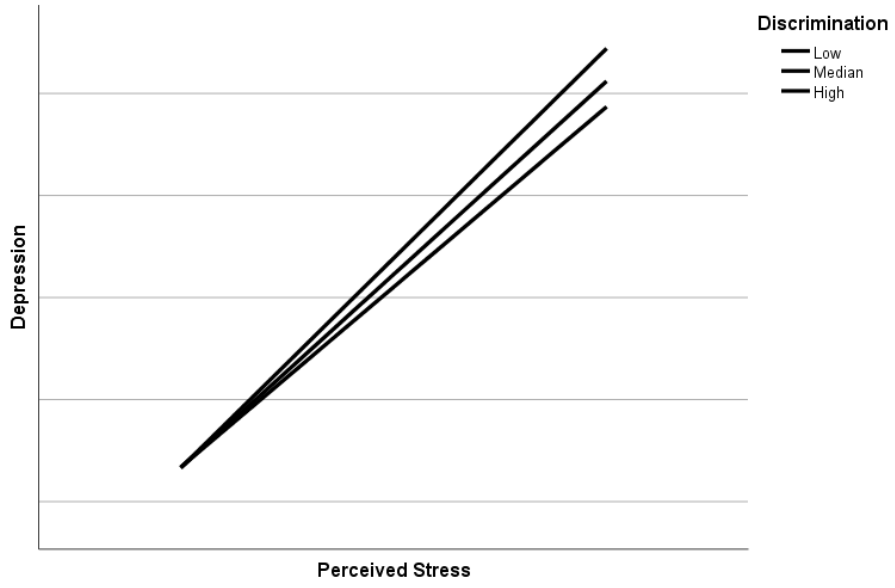
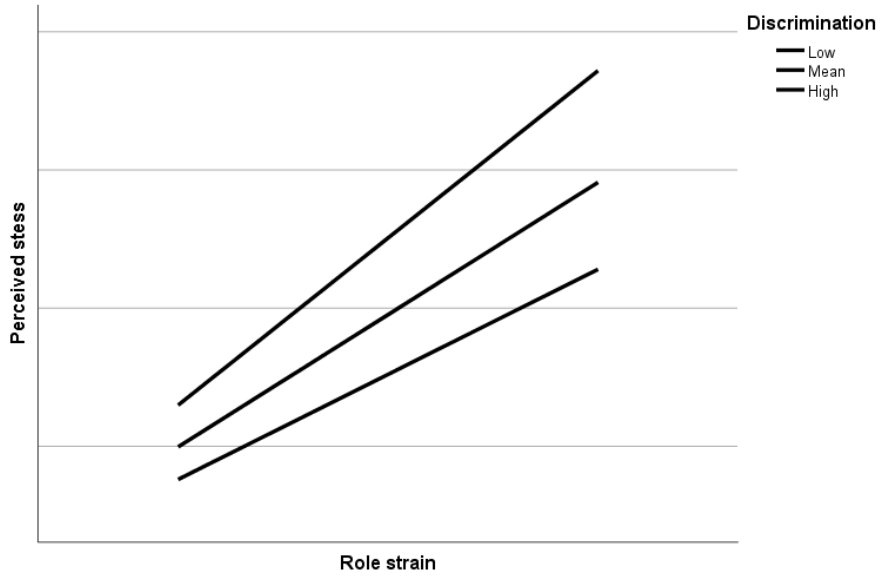


Fig. 3.7 Moderating effect of discrimination on perceived stress



Discussion

This study includes two substudies with the first examining the joint effects of two forms of unfair treatment, discrimination in public sphere and intrahousehold inequality on depression and anxiety among women and men. The second substudy examined a potential underlying pathway linking perceived role strain to more severe symptoms of depression and anxiety and to test a possible moderating role of this indirect effect by another stressor, perceived discrimination in everyday interactions in the public sphere.

The results of the first substudy showed that both intrahousehold inequality and perceived discrimination made separate and significant contributions to depression. In line with previous research studies higher levels of discrimination, as perceived unfair treatment in everyday, interpersonal interactions was associated with a higher likelihood

of meeting criteria for depression (Karlsen, & Nazroo, 2002; Lewis, Cogburn & Williams, 2015; Molina et al., 2019; Moradi, & Risco, 2006). Perceived discrimination was associated with anxiety at bivariate level, but the relationship did not hold in the multivariate analysis. Intrahousehold inequality was found to be associated with both health outcomes among women and men. The findings of this study confirmed previous research from other gender equal societies like the United States and from studies that employed international comparisons between countries that have shown that intrahousehold processes and perceived and experienced intrahousehold inequality are determinants of mental and physical health of both women and men (Chandola et al., 2004a,b; Eek & Axmon, 2015; Fettro & Nomaguchi, 2018).

The findings for the first substudy included in this paper showed that intrahousehold processes are an important stressor and needs to be considered for both women and men. In fact, this study showed that perceived role strain from a spouse or a partner was a stronger predictor of depression and anxiety among men for both depression and anxiety. One potential explanation could be that in accordance with gender roles men still feel more responsible as main breadwinners and then household roles are perceived by them as more stressful and can have more severe consequences. An interesting finding was also that foreign-born men showed an increased vulnerability comparing to U.S. born men. More precisely, the study showed that at higher levels of perceived role strain immigrant men were more likely than natives to experience major depression. This finding could potentially suggest that after migration, role strain becomes an important stressor along with other post-migration changes and challenges that can affect a persons' physical and mental health. Further, another explanation could be that in more gender equal

circumstances after migration, immigrant men from more traditional societies might feel more strain when they are faced sharing household responsibilities and appraise as more stressful demands from their partners due to views about gender roles. This substudy also considered the role of caregiving in the development of depression and anxiety. Counterintuitively, while more women than men reported being a caregiver for an ill family member or a friend because of a physical or mental condition, illness, or disability in the year prior to the study, caregiving for more than one month was associated with depression only among men.

The second substudy examined the pathway linking perceived role strain to more severe symptoms of depression and anxiety. Perceived stress was found to mediate the relationship between strain and depression and anxiety and showed a full mediation for the first mental health outcome and partial mediation for anxiety. This substudy also considered if perception of an outside threat in the form of unfair treatment in interpersonal interactions in the public sphere can have an influence on intrahousehold processes and could moderate the indirect path between role strain and depression and anxiety through perceived stress. The findings confirmed that in the presence of perceived discrimination in interpersonal interactions in the public sphere, intrahousehold inequality is associated with more psychological distress and more severe symptoms of depression and anxiety. In other words, intrahousehold processes are contingent upon perceived outside threat and unfairness in the public sphere and are associated with more severe mental health consequences and more psychological distress.

These findings are consistent with previous views about gender analysis and with theories employed in the development and research of depression and anxiety. Gender

analysis suggests that the family is a space where extensive conflict often coexists with pervasive cooperation and women have more bargaining power inside the family when they evaluate external circumstances as being favorable and if clear exist options exist (Ivensen, 2003; Sen, 1990). In this framework, perception of an outside threat such as social discrimination can potentially worsen the consequences of intrahousehold processes and inequality. The findings of this study are also consistent with previous research that is inspired by theories of defeat and entrapment developed to explain depression, anxiety and PTSD. These theories suggest the need for considering the combined effects of both societal discrimination and household inequality (Siddaway et al., 2015; Taylor et al., 2011). That is, a person's perception of defeat and entrapment appears to be pathways for depression and anxiety. Discrimination can be seen as defeat -a person's perception of a social attack or humiliation -that has been found to result in depression and anxiety (Siddaway et al., 2015; Taylor et al., 2011). Perception of entrapment - are a person's subjective evaluation of the circumstance being uncontrollable and stressful – such as it is possible in intrahousehold inequality. Experiencing both is explanatory- the feelings of chronic strain could be amplified by the fear of discrimination from society. Escaping chronic unfair treatment in a person's private life may be made even worse in the perception of the outside threat, or fear of discrimination. These theories suggest that women will embody these constraints and the interaction of these experiences of inequality will be embodied in ill health (Krieger, 2011). The findings of this study confirm that intrahousehold inequality is made worse by the perception of defeat, an outside threat, attack or humiliation.

Limitations and future directions

There are several limitations to this study. First, the study consisted of cross-sectional data and the study was a secondary analysis of data collected by other researchers. It is possible that associations identified in this study may run in the opposite direction. It could be possible that women and men with depression or an anxiety disorder could overestimate the amount of experiences of unfair treatment in interpersonal interactions in the public sphere, to perceive others as more threatening and to have more severe consequences from discrimination. Also, in the same note, in cases of pre-existing depression and anxiety, various aspects of household circumstances such as excessive demands from a partner, the presence of children or a caregiving role would seem more stressful and overwhelming.

Another important limitation is the lower generalizability of the results of the second study included in this paper. The second study included only study participants from the Biomarker project. The 2012-2016 Biomarker Project was collected inviting the large MIDUS Refresher survey participants to have various biological tests and the final Biomarker participants were more educated and then less representative for the general U.S population. A previous Biomarker project (2004-2009) was collected prior along with MIDUS 2 and 3 and has also shown to have more educated participants. The reason this sub-sample was used was that it made possible to test the mediation and the moderated mediation.

Another limitation is related to the measures used in this study. Intrahousehold inequality was measured as perceived role strain from a spouse or a partner. Future studies

that will explore the role intrahousehold inequality could potentially develop an instrument that could better reflect and measure this construct although it is difficult to conceptually separate quality of a relationship and inequality in a relationship.

Despite these limitations, the results of these two studies have important implications for mental health research. The findings support the idea that intrahousehold processes and specifically intrahousehold inequality is an important determinant of mental health for both women and men. Even more, intrahousehold inequality is a form of disadvantage, a chronic form of unfair treatment that should be considered in studies along with unfair treatment experienced in the public sphere. The main strength of the first study is that it uses a national representative survey of U.S adults, the 2011-2014 MIDUS Refresher and shows the joint effect of intrahousehold inequality and discrimination on depression and anxiety. The second study, although uses a smaller subsample of the previous sample, the 2012-2016 MIDUS Refresher Biomaker Project, collected a few years later, tested a potential pathway between role strain and depression and anxiety. The main contribution of the second study was also to employ a moderated mediation and to test if the relationship between role strain and depression and anxiety is contingent upon the perception of perceived discrimination. This is an important finding for gender analysis and as suggested by Amartya Sen, gender studies should always understand the perceived outside circumstances women have, there exist options. The outside circumstances such as employment opportunities, laws that protect them or negative aspects such as discrimination define women's bargaining power within the family, their ability to negotiate leisure, resource allocations and household responsibilities. Further, societal discrimination affects women's depression and anxiety symptomatology and it ought to be

a factor in social policy that seeks to broaden protections for women in the work place, including equal pay for equal work, work-family factors and equal training opportunities.

References

Addabbo, T., Arrizabalaga, M. P., & Owens, A. (2016). Introduction: households, gender and the production of well-being. In *Gender inequalities, households and the production of well-being in modern Europe* (pp. 23-44). Routledge.

Staland-Nyman, C., Alexanderson, K., & Hensing, G. (2008). Associations between strain in domestic work and self-rated health: a study of employed women in Sweden. *Scandinavian journal of public health*, *36*(1), 21-27.

Angst, J., Gamma, A., Gastpar, M., Lépine, J. P., Mendlewicz, J., & Tylee, A. (2002). Gender differences in depression. *European archives of psychiatry and clinical neuroscience*, *252*(5), 201-209.

Blau, F. D., & Kahn, L. M. (2013). Female labor supply: Why is the United States falling behind?. *American Economic Review*, *103*(3), 251-56.

Boyd, A., Van de Velde, S., Vilagut, G., De Graaf, R., Florescu, S., Alonso, J., ... & EU-WMH Investigators. (2015). Gender differences in mental disorders and suicidality in Europe: results from a large cross-sectional population-based study. *Journal of affective disorders*, *173*, 245-254.

Brown, T. H., Richardson, L. J., Hargrove, T. W., & Thomas, C. S. (2016). Using multiple-hierarchy stratification and life course approaches to understand health inequalities: The intersecting consequences of race, gender, SES, and age. *Journal of health and social behavior*, *57*(2), 200-222.

Carr, E. R., Szymanski, D. M., Taha, F., West, L. M., & Kaslow, N. J. (2014). Understanding the link between multiple oppressions and depression among African American women: The role of internalization. *Psychology of Women Quarterly*, *38*(2), 233-245.

Caroli, E., & Weber-Baghdiguian, L. (2016). Self-reported health and gender: The role of social norms. *Social Science & Medicine*, *153*, 220-229.

Cerrato, J., & Cifre, E. (2018). Gender inequality in household chores and work-family conflict. *Frontiers in psychology*, *9*, 1330.

Chandola, T., Martikainen, P., Bartley, M., Lahelma, E., Marmot, M., Michikazu, S., ... & Kagamimori, S. (2004). Does conflict between home and work explain the effect of multiple roles on mental health? A comparative study of Finland, Japan, and the UK. *International journal of epidemiology*, *33*(4), 884-893.

Chandola, Tarani, Jenny Head, and Mel Bartley. "Socio-demographic predictors of quitting smoking: how important are household factors?." *Addiction* 99, no. 6 (2004): 770-777.

Cohen, S., Kamarck, T., Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, *24*, 385-396.

Cohen, S., & Williamson, G. (1988). Perceived stress in a probability sample of the United States.In S. Spacapam & S. Oskamp (Eds.), *The social psychology of health: Claremont*
Symposium on applied social psychology. Newbury Park, CA: Sage.

Coker, A. L., Smith, P. H., Bethea, L., King, M. R., & McKeown, R. E. (2000). Physical health consequences of physical and psychological intimate partner violence. *Archives of family medicine*, *9*(5), 451.

Cormack, D., Stanley, J., & Harris, R. (2018). Multiple forms of discrimination and relationships with health and wellbeing: findings from national cross-sectional surveys in Aotearoa/New Zealand. *International journal for equity in health*, *17*(1), 26.

Davis, K. (2008). Intersectionality as buzzword: A sociology of science perspective on what makes a feminist theory successful. *Feminist theory*, *9*(1), 67-85.

Devins, G.M., and Orme, C.M. 1985. "Center for Epidemiologic Studies Depression Scale." *Test Critiques, 21(3), 267-283.*

Eek, F., & Axmon, A. (2015). Gender inequality at home is associated with poorer health for women. *Scandinavian journal of public health*, *43*(2), 176-182.

Evans, C. R., & Erickson, N. (2019). Intersectionality and depression in adolescence and early adulthood: a MAIHDA analysis of the national longitudinal study of adolescent to adult health, 1995–2008. *Social Science & Medicine*, *220*, 1-11.

Evans, C. R., Williams, D. R., Onnela, J. P., & Subramanian, S. V. (2018). A multilevel approach to modeling health inequalities at the intersection of multiple social identities. *Social Science & Medicine*, *203*, 64-73.

Fettro, M. N., & Nomaguchi, K. (2018). Spousal problems and family-to-work conflict among employed US adults. *Journal of family and economic issues*, *39*(2), 277-296.

Frank, K., & Hou, F. (2015). Source-country gender roles and the division of labor within immigrant families. *Journal of Marriage and Family*, *77*(2), 557-574.

Garnett, B. R., Masyn, K. E., Austin, S. B., Miller, M., Williams, D. R., & Viswanath, K. (2014). The intersectionality of discrimination attributes and bullying among youth: An applied latent class analysis. *Journal of youth and adolescence*, *43*(8), 1225-1239.

Gee, G. C. (2008). A multilevel analysis of the relationship between institutional and individual racial discrimination and health status. *American journal of public health*, *98*(Supplement_1), S48-S56.

Gee, G. C., Ryan, A., Laflamme, D. J., & Holt, J. (2006). Self-reported discrimination and mental health status among African descendants, Mexican Americans, and other Latinos in the New Hampshire REACH 2010 Initiative: the added dimension of immigration. *American Journal of Public Health*, *96*(10), 1821-1828.

Gee, G. C., Ryan, A., Laflamme, D. J., & Holt, J. (2006). Self-reported discrimination and mental health status among African descendants, Mexican Americans, and other Latinos in the New Hampshire REACH 2010 Initiative: the added dimension of immigration. *American journal of public health*, *96*(10), 1821-1828.

Gkiouleka, A., Huijts, T., Beckfield, J., & Bambra, C. (2018). Understanding the micro and macro politics of health: Inequalities, intersectionality & institutions-A research agenda. *Social Science & Medicine*, *200*, 92-98.

Griffin, J. M., Fuhrer, R., Stansfeld, S. A., & Marmot, M. (2002). The importance of low control at work and home on depression and anxiety: do these effects vary by gender and social class?. *Social science & medicine*, *54*(5), 783-798.

Green, M. A., Evans, C. R., & Subramanian, S. V. (2017). Can intersectionality theory enrich population health research?.

Grollman, E. A. (2012). Multiple forms of perceived discrimination and health among adolescents and young adults. *Journal of Health and Social Behavior*, *53*(2), 199-214.

Grollman, E. A. (2014). Multiple disadvantaged statuses and health: the role of multiple forms of discrimination. *Journal of health and social behavior*, *55*(1), 3-19.

Hammen, C., Henry, R., & Daley, S. E. (2000). Depression and sensitization to stressors among young women as a function of childhood adversity. *Journal of consulting and clinical psychology*, *68*(5), 782.

Hayes, A. F. (2017). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. Guilford publications.

Iversen, V. (2003). Intra-household inequality: a challenge for the capability approach?. *Feminist economics*, *9*(2-3), 93-115.

Jayachandran, S. (2015). The roots of gender inequality in developing countries. *economics*, *7*(1), 63-88.

Harryson, L., Strandh, M., & Hammarström, A. (2012). Domestic Work and Psychological Distress− What Is the Importance of Relative Socioeconomic Position and Gender Inequality in the Couple Relationship?. *PloS one*, *7*(6).

Harryson, L., Novo, M., & Hammarström, A. (2012). Is gender inequality in the domestic sphere associated with psychological distress among women and men? Results from the Northern Swedish Cohort. *J Epidemiol Community Health*, *66*(3), 271-276.

Hou, F., & Frank, K. (2015). *Source-country female labour force participation and the wages of immigrant women in Canada* (No. 2015365e). Statistics Canada, Analytical Studies Branch.

Howard, L. M., Ehrlich, A. M., Gamlen, F., & Oram, S. (2017). Gender-neutral mental health research is sex and gender biased. *The Lancet Psychiatry*, *4*(1), 9-11.

Karlsen, S., & Nazroo, J. Y. (2002). Relation between racial discrimination, social class, and health among ethnic minority groups. *American journal of public health*, *92*(4), 624-631.

Kim, I. H., & Noh, S. (2014). Ethnic and gender differences in the association between discrimination and depressive symptoms among five immigrant groups. *Journal of immigrant and minority health*, *16*(6), 1167-1175.

Kessler, R. C., Mickelson, K. D., & Williams, D. R. (1999). The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. *Journal of health and social behavior*, 208-230.

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of general psychiatry*, *62*(6), 593-602.

Kessler, R. C. (2007). The global burden of anxiety and mood disorders: putting ESEMeD findings into perspective. *The Journal of clinical psychiatry*, *68*(Suppl 2), 10.

Kessler, R. C., Petukhova, M., Sampson, N. A., Zaslavsky, A. M., & Wittchen, H. U. (2012). Twelve-month and lifetime prevalence and lifetime morbid risk of anxiety and mood disorders in the United States. *International journal of methods in psychiatric research*, *21*(3), 169-184.

Krieger, N. (1999). Embodying inequality: a review of concepts, measures, and methods for studying health consequences of discrimination. *International journal of health services*, *29*(2), 295-352.

Krieger, N. (2012). Methods for the scientific study of discrimination and health: an ecosocial approach. *American journal of public health*, *102*(5), 936-944.

Kuehner, C. (2017). Why is depression more common among women than among men?. *The Lancet Psychiatry*, *4*(2), 146-158

Landstedt, E., Harryson, L., & Hammarström, A. (2016). Changing housework, changing health? A longitudinal analysis of how changes in housework are associated with functional somatic symptoms. *International journal of circumpolar health*, *75*(1), 31781.

Li, L. W., & Dong, X. (2017). Self-reported discrimination and depressive symptoms among older Chinese adults in Chicago. *Journals of Gerontology Series A: Biomedical Sciences and Medical Sciences*, *72*(suppl_1), S119-S124.

Li, S. H., & Graham, B. M. (2017). Why are women so vulnerable to anxiety, trauma-related and stress-related disorders? The potential role of sex hormones. *The Lancet Psychiatry*, *4*(1), 73-82.

Leopold, T. A., Ratcheva, V., & Zahidi, S. (2016). The global gender gap report 2016. World Economic Forum.

Lewis, T. T., Cogburn, C. D., & Williams, D. R. (2015). Self-reported experiences of discrimination and health: scientific advances, ongoing controversies, and emerging issues. *Annual review of clinical psychology*, *11*, 407-440.

McDonough, P., Walters, V., & Strohschein, L. (2002). Chronic stress and the social patterning of women's health in Canada. *Social Science & Medicine*, *54*(5), 767-782.

McLean, C. P., Asnaani, A., Litz, B. T., & Hofmann, S. G. (2011). Gender differences in anxiety disorders: prevalence, course of illness, comorbidity and burden of illness. *Journal of psychiatric research*, *45*(8), 1027-1035.

Molarius, A., Granström, F., Lindén-Boström, M., & Elo, S. (2014). Domestic work and self-rated health among women and men aged 25–64 years: Results from a population-based survey in Sweden. *Scandinavian journal of public health*, *42*(1), 52-59.

Moradi, B., & Risco, C. (2006). Perceived discrimination experiences and mental health of Latina/o american persons. *Journal of Counseling Psychology*, *53*(4), 411.

Moss, N. E. (2002). Gender equity and socioeconomic inequality: a framework for the patterning of women's health. *Social science & medicine*, *54*(5), 649-661.

Nolen-Hoeksema, S. (2001). Gender differences in depression. *Current directions in psychological science*, *10*(5), 173-176.

Oh, H., Yang, L. H., Anglin, D. M., & DeVylder, J. E. (2014). Perceived discrimination and psychotic experiences across multiple ethnic groups in the United States. *Schizophrenia research*, *157*(1-3), 259-265.

Paradies, Y. (2006). A systematic review of empirical research on self-reported racism and health. *International journal of epidemiology*, *35*(4), 888-901.

Paradies, Y., Ben, J., Denson, N., Elias, A., Priest, N., Pieterse, A., ... & Gee, G. (2015). Racism as a determinant of health: a systematic review and meta-analysis. *PloS one*, *10*(9).

Pascoe, E. A., & Smart Richman, L. (2009). Perceived discrimination and health: a meta-analytic review. *Psychological bulletin*, *135*(4), 531.

Piccinelli, M., & Wilkinson, G. (2000). Gender differences in depression: Critical review. *The British Journal of Psychiatry*, *177*(6), 486-492.

Riecher-Rössler, A. (2017). Sex and gender differences in mental disorders. *The Lancet Psychiatry*, *4*(1), 8-9.

Radloff, L.S. 1977. "The CES-D Scale: A self-report depression scale for research in the general

population." *Applied Psychology Measurement, 1(3), 385-401.*

Richman, L. S., & Zucker, A. N. (2019). Quantifying intersectionality: an important advancement for health inequality research. *Social Science & Medicine*, *226*, 246-248.

Robinson, E., Sutin, A., & Daly, M. (2017). Perceived weight discrimination mediates the prospective relation between obesity and depressive symptoms in US and UK adults. *Health Psychology*, *36*(2), 112.

Roberts, R.E., and Vernon, S.W. 1983. "The center for epidemiologic studies depression scale: Its use in a community sample." *American Journal of Psychiatry, 140(1), 41-46.*

Röder, A., & Mühlau, P. (2014). Are they acculturating? Europe's immigrants and gender egalitarianism. *Social Forces*, *92*(3), 899-928.

Ryff C, Almeida D, Binkley N, Carr D, Coe C, Davidson R. et al. National Survey of Midlife Development in the United States (MIDUS Refresher), 2011–2014. Ann Arbor, MI: Interuniversity Consortium for Political and Social Research; 2016. ICPSR36532-v2

Salk, R. H., Hyde, J. S., & Abramson, L. Y. (2017). Gender differences in depression in representative national samples: meta-analyses of diagnoses and symptoms. *Psychological bulletin*, *143*(8), 783.

Schmitt, M. T., Branscombe, N. R., Kobrynowicz, D., & Owen, S. (2002). Perceiving discrimination against one's gender group has different implications for well-being in women and men. *Personality and Social Psychology Bulletin*, *28*(2), 197-210.

Schmitt, M. T., Branscombe, N. R., Postmes, T., & Garcia, A. (2014). The consequences of perceived discrimination for psychological well-being: a meta-analytic review. *Psychological bulletin*, *140*(4), 921.

Seedat, S., Scott, K. M., Angermeyer, M. C., Berglund, P., Bromet, E. J., Brugha, T. S., ... & Karam, E. G. (2009). Cross-national associations between gender and mental disorders in the World Health Organization World Mental Health Surveys. *Archives of general psychiatry*, *66*(7), 785-795.

Sen, A. (1987). Gender and cooperative conflicts.

Sen, G., & Östlin, P. (2008). Gender inequity in health: why it exists and how we can change it.

Samman, E., & Santos, M. E. (2009). Agency and Empowerment: A review of concepts, indicators and empirical evidence.

Seng, J. S., Lopez, W. D., Sperlich, M., Hamama, L., & Meldrum, C. D. R. (2012). Marginalized identities, discrimination burden, and mental health: Empirical exploration of an interpersonal-level approach to modeling intersectionality. *Social Science & Medicine*, *75*(12), 2437-2445.

Siddaway, A. P., Taylor, P. J., Wood, A. M., & Schulz, J. (2015). A meta-analysis of perceptions of defeat and entrapment in depression, anxiety problems, posttraumatic stress disorder, and suicidality. *Journal of affective disorders*, *184*, 149-159.

Slopen, N., Non, A., Williams, D. R., Roberts, A. L., & Albert, M. A. (2014). Childhood adversity, adult neighborhood context, and cumulative biological risk for chronic diseases in adulthood. *Psychosomatic medicine*, *76*(7), 481.

Sternthal, M. J., Slopen, N., & Williams, D. R. (2011). Racial disparities in health: how much does stress really matter?. *Du Bois Review: Social Science Research on Race*, *8*(1), 95-113.

Sperlich, S., & Geyer, S. (2015). The impact of social and family-related factors on women's stress experience in household and family work. *International journal of public health*, *60*(3), 375-387.

Spielberger, C. D. (1983). Manual for the state–trait anxiety inventory (Form Y) ("Self-evaluation questionnaire"), Consulting Psychologists Press, Palo Alto, CA.

Spielberger, C. D. (1989). State–trait anxiety inventory: a comprehensive bibliography. , Consulting Psychologists Press, Palo Alto, CA.

Staland-Nyman, C., Alexanderson, K., & Hensing, G. (2008). Associations between strain in domestic work and self-rated health: a study of employed women in Sweden. *Scandinavian journal of public health*, *36*(1), 21-27.

Staland Nyman, C., Alexanderson, K., & Hensing, G. (2008b). Sickness absence in women—what are the associations with domestic work?. In *European Journal of Public Health* (Vol. 18, No. Suppl. 1, pp. 36-36). Oxford University Press.

Taylor, P. J., Gooding, P., Wood, A. M., & Tarrier, N. (2011). The role of defeat and entrapment in depression, anxiety, and suicide. *Psychological bulletin*, *137*(3), 391.

Umaña-Taylor, A. J., & Updegraff, K. A. (2007). Latino adolescents' mental health: Exploring the interrelations among discrimination, ethnic identity, cultural orientation, self-esteem, and depressive symptoms. *Journal of adolescence*, *30*(4), 549-567.

Van de Velde, S., Bracke, P., & Levecque, K. (2010). Gender differences in depression in 23 European countries. Cross-national variation in the gender gap in depression. *Social science & medicine*, *71*(2), 305-313.

Väänänen, A., Kevin, M. V., Ala-Mursula, L., Pentti, J., Kivimäki, M., & Vahtera, J. (2005). The double burden of and negative spillover between paid and domestic work: associations with health among men and women. *Women & health*, *40*(3), 1-18.

Wagman, P., Lindmark, U., Rolander, B., Wåhlin, C., & Håkansson, C. (2017). Occupational balance in health professionals in Sweden. *Scandinavian journal of occupational therapy*, *24*(1), 18-23.

McDonough, P., Walters, V., & Strohschein, L. (2002). Chronic stress and the social patterning of women's health in Canada. *Social Science & Medicine*, *54*(5), 767-782.

Williams, D. R. (1999). Race, socioeconomic status, and health the added effects of racism and discrimination.

Williams, D. R., & Mohammed, S. A. (2009). Discrimination and racial disparities in health: evidence and needed research. *Journal of behavioral medicine*, *32*(1), 20-47.

Williams, D. R., Yu, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health: Socio-economic status, stress and discrimination. *Journal of health psychology*, *2*(3), 335-351.

Williams, D. R., John, D. A., Oyserman, D., Sonnega, J., Mohammed, S. A., & Jackson, J. S. (2012). Research on discrimination and health: an exploratory study of unresolved conceptual and measurement issues. *American Journal of Public Health*, *102*(5), 975-978.

Williams, D. R., Neighbors, H. W., & Jackson, J. S. (2003). Racial/ethnic discrimination and health: findings from community studies. *American journal of public health*, *93*(2), 200-208.

Williams, D. R., Neighbors, H. W., & Jackson, J. S. (2003). Racial/ethnic discrimination and health: findings from community studies. *American journal of public health*, *93*(2), 200-208.

Women, U.N. (2015). Progress of the World' s Women 2015-2016: Transforming Economies, Realizing Rights (No. id: 7688). Retrieved from http://progress.unwomen.org/en/2015/pdf/UNW_progressreport.pdf

World Bank (2012). World Development Report 2012: Gender Equality and Development. Retrieved from https://openknowledge.worldbank.org/handle/10986/4391.

World Health Organization. (2009). Women and health: today's evidence tomorrow's agenda. Retrieved from http://www.who.int/gender-equity-rights/knowledge/9789241563857/en/.

Chapter 4: Paper 3. The role of perceived stress and discrimination in the association between major stressful events and depression and anxiety: A moderated mediation model.

Introduction

A large number of studies show that more women than men experience affective and mood disorders such as depression and anxiety (Kessler et al., 2005; 2012; McLean et al., 2011) and that the gender gap, relative to women's mental health, is not fully understood (Li & Graham, 2017; Riecher-Rössler, 2017). The differences between men and women start in early life and extend to different risk factors, symptom expression, and course of disorders (Howard et al., 2017; Kuehner, 2017; McLean et al., 2011; Riecher-Rössler, 2017) and this gender pattern is found in nearly all nations (Boyd et al., 2015; Salk, Hyde & Abramson, 2017; Kessler, 2007; Seedat et al., 2009).

Numerous studies have explored women's increased vulnerability to these disorders and have considered the role and consequences of exposure to stressful and traumatic experiences across the lifespan. Studies have found that stressful experiences are common and can have direct effects on both depression and anxiety, can increase reactivity to stress, can lead to more severe consequences of the cumulative effect of stressful or traumatic experiences, and can also affect persons' ability to cope (Elliot et al., 2018; Nolen-Hoeksema, 2001; Piccinelli & Wilkinson, 2000). Lifetime exposure to stressful or traumatic experiences can start in early life as adverse childhood experiences and continue throughout the lifespan (Anda et al., 2006; Ford et al., 2000; Hemmingsson & Lundberg, 2005). Studies have found evidence that exposure to stressful and traumatic experiences are associated with higher morbidity and mortality (Bellis et al., 2015; Brown et al., 2009; 2005; Felitti et al., 1998; Glaser et al., 2006; Kelly-Irving et al., 2013). Childhood physical

and emotional abuse and neglect and other forms of early adversity have been found to be associated with high comorbidity of physical and mental health conditions, substance abuse, exposure to more risk and violence later in life and ultimately with increased mortality (Anda et al., 2006; Felitti et al., 1998; Ford et al., 2006). Studies have found that adverse experiences throughout adolescence and later as an adult such as flunking out of school, job loss and prolonged unemployment, bankruptcy, incarceration and conflicts within families are associated with distress and increased mental health problems (Rodriguez, Frongillo & Chandra, 2001; Romito, Turan & De Marchi, 2005; Swisher & Shaw-Smith, 2015). Traumatic experiences throughout life such as experiencing physical and sexual attacks, death of siblings, parents or own children, interpersonal violence, severe and life threatening illnesses or accidents, military combat can been associated with trauma-related stress disorders, and mood and anxiety disorders (Brown et al., 2010; Ehring et al., 2008; Evans & Cassells, 2014; Kulkarni, Porter & Rauch, 2012; McHugo et al., 2005). Other traumatic events that are experienced collectively like historical trauma, natural disasters, experiencing wars, refugee camps experiences or asylum have also been shown to increase the risk for physical illness, increased comorbidity and severity of mental and physical health conditions (Alemi et al., 2013; Holtan et al., 2002; Jamil et al., 2010; Koch-Weser, Liang & Grigg-Saito, 2006; Lie, 2002; Matanov et al., 2013; Mollica et al. 1999; Norredam et al., 2009; Plante et al., 2002)

Studies have found that exposure to adverse events, especially if early in life, is also associated with emotional dysregulation and lower ability to cope with major and daily stressors (Evans & Cassells, 2014; Glaser et al., 2000; Weltz et al., 2016). Further, exposure to traumatic and stressful events also increases a person's psychological distress and

perceived threat (Mersky, Janczewski & Nitkowski, 2018; Zou et al., 2020). The consequences are cumulative in nature and intensify the reactions and consequences to future stressful experiences by changing persons' appraisals of the stressful life circumstances, events and of daily stressors and by the magnitude of the stress reaction (Krieger, 1990; Matheson et al., 2019). A growing body of literature explored whether experiences of stressful and traumatic events increase a person's vulnerability to various forms of unfair and unkind treatment that the person might experience in interpersonal interactions, like acts of discrimination based on persons' gender, race, social class, or other personal attributes. Although limited in size these studies found that pre-exposure to traumatic and stressful experiences increases a persons' perception of more frequent. It also potentially results in more vigilance, fear, and significantly more distress (Matheson et al., 2019; Mersky, Janczewski & Nitkowski, 2018; Williams et al., 2007). The mechanisms of the major stressful and traumatic experiences, perceived interpersonal discrimination and their potentially combined effects on depression and anxiety symptoms are not well understood.

Discrimination and depression and anxiety

People can experience various forms of discrimination in interpersonal interactions or witness discriminatory acts against one's group throughout their lives (Gee, Laflamme & Holt, 2006; Krieger, 2003; 2004; Paradies, 2006; Pascoe & Richman, 2009). Generally, discrimination refers to "the process by which a member, or members, of a socially defined group is, or are, treated differently (especially unfairly) because of his/her/their membership of that group" (page 169) (as cited in Krieger, 2001). "The unfair treatment is

a consequence of devaluation of one group and, it is justified by ideologies that support innate superiority or inferiority of groups in society. Discrimination can be manifested as institutional, structural, or interpersonal forms of restricting others' lives, to dominate and oppress" (Krieger 2001, pg.169.).

Some of these experiences can manifest in everyday interactions such as a person is treated with less respect, offered poorer service and seen as inferior to others (Lewis et al., 2010; Schulz et al., 2006). Other forms of unfair treatment can include major lifetime experiences such as being unjustly fired, or not being hired in a job or even being treated unlawfully by the police (Ayalon, & Gum, 2011, Pilver et al, 2011). It can also include being threatened or being a victim of a violent attack (Huebner, Rebchook & Kegeles, 2004; Wallace, Nazroo & Bécares, 2016). It is estimated that more than a third of the population experiences at least one major adverse lifetime event and up to 60% at least one form in everyday interactions (Kessler, Mickelson & Williams, 1999). In addition, experiencing discrimination can be a major stressor similar to the experiences of adverse life events such as a divorce or other form of loss. Several studies have found evidence that discrimination is harmful for person's health and well-being. Discrimination has associations with mental health outcomes such as depression, anxiety, PTSD, more severe symptoms and higher levels of psychological distress (Abdulrahim et al., 2012; Gee at al., 2006; 2007; Li & Dong, 2017; Kim et al., 2013; Moradi, & Risco, 2006; Robinson, Sutin & Daly, 2017; Umaña-Taylor & Updegraff, 2007).

Several studies have found that discrimination can have different effects across groups in society (Krieger, 1990; Paradies et al., 2015; Pascoe & Richman, 2009). Studies that explored increased vulnerability across groups considered the consequences of

different aspects of these experiences such as the type of the discriminatory act experienced by the person or a group and the possible different attributions like for example racial, gender or age discrimination (Ahmed, Mohammed & Williams, 2007; Giurgescu et al., 2011). Further, other studies considered whether consequences of discrimination are different if the stigma is controllable or visible as in the case of racism or sexism or if it is not visible as well as how are these discriminatory experiences are embodied across different social classes (Ahmed, Mohammed & Williams, 2007; Giurgescu et al., 2011; Krieger, 1990; Paradies, 2006; Parscoe & Richman, 2009; Schmitt et al., 2014; Stepanikova, Bateman & Oates, 2017; Sutin, Stephan & Terracciano, 2015). Other studies considered characteristics of the different groups that experience discrimination, their relation to power in society and their history, like historical trauma and if discrimination is experienced by the person or the person is witnessing the discriminatory act (Krieger 2004, 2011; Williams & Mohammed, 2009). Other studies have explored various consequences on health of the exposure to pervasive, chronic discrimination versus isolated events (Beatty Moody, et al., 2014; Fuller-Rowell et al., 2018; Stepanikova, Bateman & Oates, 2017) or increased risk associated with higher perceived burden from lifetime or everyday discrimination experienced simultaneously (Lewis et al, 2015; Paradies, 2006; Williams & Mohammed, 2009).

Studies have found disproportionate exposure among some racial groups (Car et al., 2013; Evans et al., 2018; Grollman, 2012; Gkiouleska et al, 2018; Hunte & Williams, 2009; Pérez, Fortuna & Alegria, 2008) and also that some groups experience more types of discrimination (Ayalon, & Gum, 2011) and also more types simultaneously, based on various personal attributes such as race, gender, social status (Mouzon et al., 2011;

Grollman 2012, 2014; Logie et al., 2013; Thompson, Noel & Campbell, 2004; Wallace, Nazroo & Bécares, 2016). More importantly, these studies find more harm for a persons' mental and physical health and well-being for the cumulative effects of discrimination to more frequent exposure, to more types of discrimination, in more domains and over a longer period of time (Grollman 2012, 2014; Logie et al., 2013; Thompson, Noel & Campbell, 2004; Wallace, Nazroo & Bécares, 2016).

Perceived discrimination and stressful and traumatic events

Numerous studies suggest that both trauma or discrimination potentially have the same underlying mechanism and cumulative effects (Grollman, 2014; Schmitt, et al., 2014; Schmitt, Branscombe, & Postmes, 2003; Sternthal, Slopen, & Williams, 2011). Both seem to increase the perceived severity and stressfulness of experiences of discrimination and of the stressful or traumatic events and potentially increase vigilance, perceived threat, and fear of future experiences of unfair treatment or stressful life events (Schmitt, et al., 2014; Schmitt, Branscombe, & Postmes, 2003; Wallace, Nazroo & Bécares, 2016). However, it is unclear if perceived discrimination can mediate and or moderate the link between lifetime exposure to adverse experiences and depression and anxiety. Further, it appears that no studies have examined the potential conditional indirect effect of multiple forms of discrimination on the relation between major stressful events and depression and anxiety.

The first aim of this paper is to explore if women are more vulnerable than men to the effect of major stressful and traumatic events on depression and anxiety. Further, the second aim will be to explore a potential underlying pathway linking major stressful events

to more severe symptoms of depression and anxiety through perceived stress. This study also examines the possible presence of a conditional indirect effect, the potential moderating role of perceived everyday discrimination on the relation between major stressful events and depression and anxiety (conceptual model presented in Fig.4.1). Lastly, it examines the potentially moderating role of multiple forms of discrimination on the direct effect of major stressful events and depression and anxiety and on the indirect effect through perceived stress (conceptual model presented in Fig.4.2).

Method

Sample and procedure

This paper uses data from the respondents from the 2011-2014 Midlife in the United States (MIDUS) Refresher survey who also participated in the follow up project, the 2012-2016 MIDUS Refresher Biomarker (Ryff et al. 2016). The 2011-2014 MIDUS Refresher survey is part of a series of surveys conducted by the MacArthur Foundation Research Network on Successful Midlife Development. The first survey, MIDUS I was conducted in 1995/96 and the second and third in 2002-2006 and 2011-2014 (in process). The objectives of these surveys was to investigate the role of behavioral, psychological, and social factors in accounting for age-related variations in health and well-being in a national sample of Americans. The 2011-2014 MIDUS Refresher is a replica, with matching criteria of the previous study, of the MIDUS 1, with the goal to examine period effects on physical health and mental health and also the potential consequences of the economic recession (Ryff et al. 2016). The MIDUS Refresher recruited and collected data that included demographic, psycho-social, and physical and mental health information from a nationally representative sample of 3577 adults, with ages between 25 to 75. The study population

was derived from two independent samples, one of English-speaking adults aged 25-54 living in residential housing units in the U.S. recruited in 2011 and one sample with 1400 older adults between ages 55 to 74 collected in 2013. Study participants were first interviewed over a 45 minutes telephone interview and after, a 108-page self-administered questionnaire was mailed to the participants. Among study participants, 73% returned the self-administered questionnaire. A subsample of the MIDUS Refresher sample (N=863) participated in the MIDUS Refreshed 2012-2016 Biomarker project and this part of the study collected comprehensive biological assessments to explicate biopsychosocial pathways that contributed to diverse health outcomes. The MIDUS Refresher was funded by the National Institute on Aging and the study is publicly available and was obtained from Interuniversity Consortium for Political and Social Research (ICPSR).

Measures

Dependent variables: Depression: The Center for Epidemiological Studies depression inventory (CES D) was used to evaluate the severity of respondents' depression symptoms (Devins & Orme, 1985; Radloff, 1977; Roberts & Vernon, 1983). The scale has 20 items and asks study participants to rate if they experienced such symptoms like they felt bothered by things, did not feel like eating; felt that they could not shake off the blues even with the help of my family and friends. The Cronbach's alpha for this scale in this sample was reported as 0.88. Anxiety symptoms were measured using the Spielberger' Trait anxiety inventory (Spielberger, 1983; Spielberger, 1989). The scale has 20 items and asks study participants to rate if they experienced such symptoms like they felt tired quickly, feel like crying or ty to avoid facing crisis or difficulty. The Cronbach's alpha for this scale in this sample was reported as 0.90. Perceived stress was measured using a 10

item scale that asked participants if, in the past month, they experienced feeling unable to control the important things in their lives, felt nervous and stressed or felt confident about their ability to handle personal problems (Cohen, Kamarch & Mermelstein, 1983; Cohen & Williamson, 1988). The Cronbach's alpha for this scale in this sample was reported as 0.85.

Independent variables: Perceived discrimination refers to chronic experiences of unfair treatment in interpersonal, everyday interactions. Perceived everyday discrimination was measured using the Everyday Discrimination Scale (EDS) from the Detroit Area Study Questionnaire (Williams, Jackson & Anderson, 1997). Respondents were asked how frequently (often, sometimes, rarely or never) they experienced discrimination in daily interactions over their lifetime. The question was: "How often on a day-to-day basis do you experience each of the following types of discrimination?". The discriminatory acts were for example, being treated with less courtesy than other people or with less respect, or being called names, insulted or threatened or harassed. The scale has 9 items representing discrimination experiences and it is constructed by summing up the items. The possible scores range from 9 to 36, 9 representing no instances of discrimination and higher scores represented higher levels of perceived interpersonal discrimination. Previous studies using this scale found good psychometric properties (Assari & Caldwell, 2018; Jang et al, 2010). The Cronbach's alpha for this scale in this sample was 0.92. Study participants were also asked to indicate one or more reasons (out of 13 possible personal attributes) they believed they have experienced discrimination such as race, ethnicity, gender, age, religion, physical appearance, sexual orientation, or other characteristics. The

variables multiple forms of discrimination was coded as experiencing no or one form of discrimination, two forms or there or more.

The major adverse life events or stressful events were measured using an inventory of nineteen stressful events and the age of their occurrence. (Dohrenwend, 2006; Turner & Wheaton, 1995). A score was calculated by adding up all events reported by a study participant. The events referred to major family events like death of a parent or own child, economic circumstances long term unemployment or bankruptcy and traumatic experiences such as physical or sexual attack, jail detention or combat. Demographic covariates included: the covariates that were controlled for in both the mediation and moderation paths were age, gender, race and nativity.

Analytic strategy

First, Spearman correlation was used to evaluate the bivariate correlations between variables. PROCESS Macro 3 for SPSS, model 4 was used for mediation analysis, model 1 for moderation of direct paths, model 58 was used for the moderated mediation analysis and model 8 with indicator coding was used for the moderation of direct and indirect effect (Hayes, 2017). The 95% confidence intervals were calculated with 5000 bias-corrected bootstrap samples. All mediation and moderation models were adjusted for sociodemographic correlates respectively for gender, age, race and nativity. The conditional indirect effects were assessed using the pick-a-point approach. The values selected to test the moderation were one standard deviation below and one standard deviation above the mean for the moderator. Plots were generated to visually represent the conditional indirect effect.

Results

Descriptive statistics are presented in Table 4.1. The analytic sample included 738 participants from the MIDUS Refresher study that participated later in the MIDUS Refreshed Biomarker project 2012-2016 and completed the self-administered questionnaire. There was almost the same number of women and men and their age ranged from 25 to 76 with a mean age of 50 (SE: 0.4). The largest group was White (81%, SE:0.9), followed by other races 19% (SE: 0.7) and 5.7% (SE:0.2) were foreign born, first generation immigrants. In the analytic sample, 14.2% (SE:0.4) had a high school degree or less, 28.6% (SE:0.4) some college and 26.7% (SE:0.4) a college degree and 30 % (SE:0.4) graduate school. Women reported statistically significant higher levels of depressive symptoms ($M=9.93$, $t=-2.6$, $p<0.01$), perceived stress ($M=23.31$, $t=-4.009$, $p<0.001$) and anxiety symptoms ($M=36.09$, $t=-2.94$, $p<0.01$). About 40% (SE:1.3) of the sample reported no instances of perceived discrimination. The scores on the perceived discrimination scale ranged from 9 to 33 with a mean score of 12.9 (SE:0.1). Women ($M=13.45$, $t=-2.16$, $p<0.05$) reported statistically significant higher mean levels of perceived everyday discrimination than men. In the sample, 77 % of participants reported one form of perceived reason for discrimination or no discrimination, 11% two reasons (forms of discrimination) and 12% three or more forms of discrimination. There were no statistically significant differences between women and men in the mean number of major stressful events experienced.

Table 4.1. Descriptive statistics (N=738)

	Mean or % (SD) and Range	Mean or % (SD) and Range	Mean or % (SD) and Range
		Men	Women
Depression		8.51 (7.72), 0-48	9.93 (8.002), 0-44
Anxiety		34.25 (9.07), 20-67	36.09 (9.25), 20-63
Perceived stress		21.59 (6.13), 10-43	23.31 (6.46), 10-44
Sociodemographic			
Age	25-76, 50 (0.45)		
Women	49.9 % (SE:1.3)		
Men	50.1 %(SE:1.3)		
African American	19 % (SE:0.7)		
White	81 % (SE:0.9)		
Immigrant, first generation	5.7 % (SE:0.2)		
High school or less	14.2 % (SE:0.4)		
Some college, no degree	28.6 % (SE:0.4)		
University degree	26.7 % (SE:0.4)		
Graduate school	30.5% (SE:0.4)		
Discrimination			
Perceived discrimination		12.68 (4.97), 9-33	13.45 (4.7), 9-30
Multiple forms of discrimination			
No discrimination		63.2%	57.8 %
One form		18.6%	15.1%
Two or more		18.2%	27.1%
Major stressful events		2.71 (SE:0.09), 0-9	2.72 (SE:0.10), 0-11

Fig. 4.1. Hypothesized conceptual model of the moderated mediation for depression and anxiety (perceived discrimination). Perceived stress is examined as a mediator of the relation between major stressful events and symptoms of depression and anxiety. Perceived discrimination is shown as a moderator of the relation between major stressful events and perceived stress and between perceived stress and symptoms of depression or anxiety.

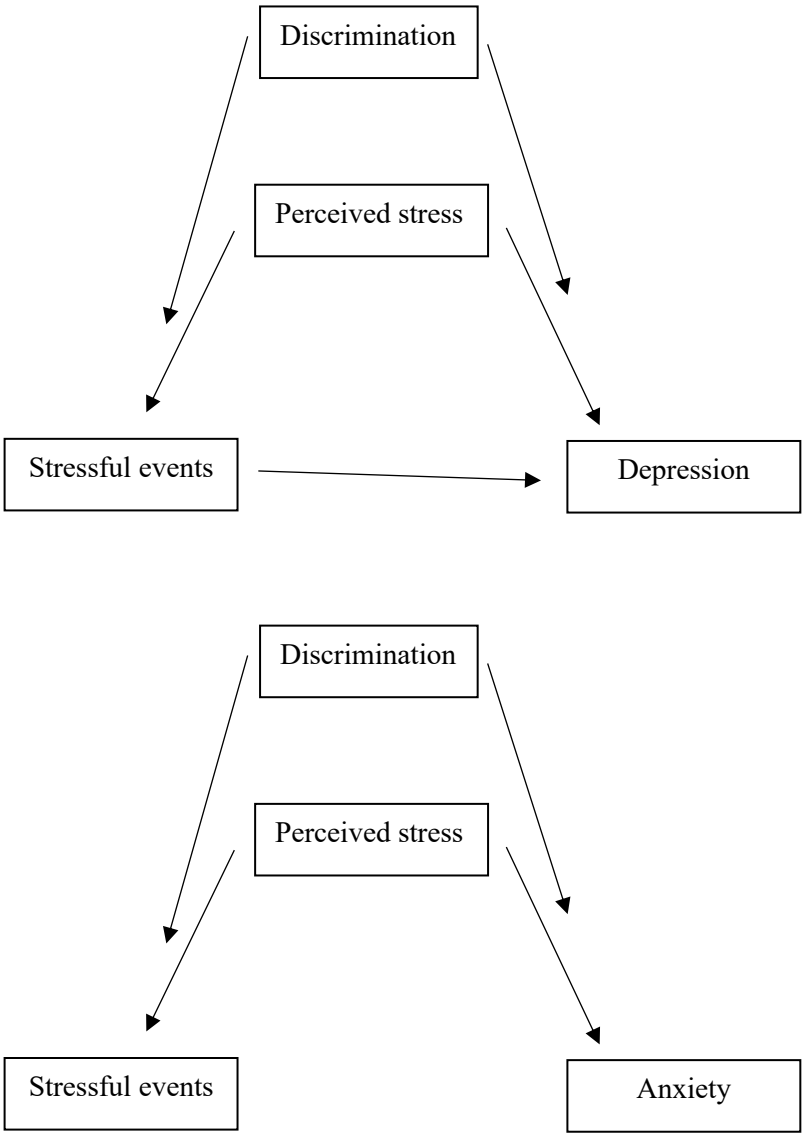


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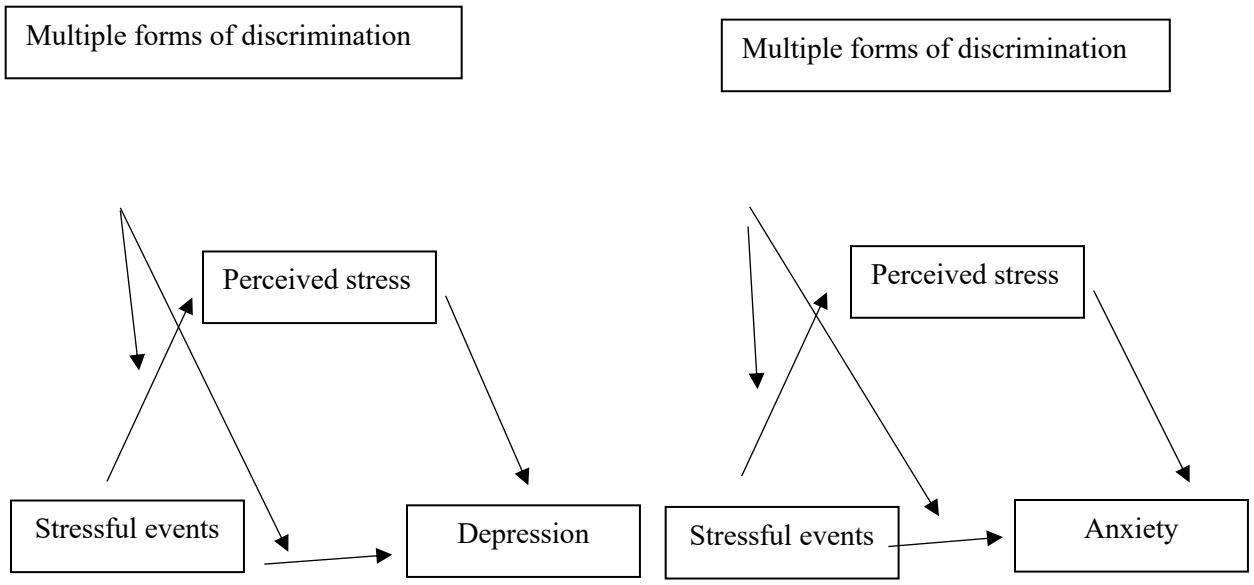
Fig. 4.2. Hypothesized conceptual model of the moderated mediation for depression and anxiety (multiple forms of discrimination). Perceived stress is examined as a mediator of the relation between major stressful events and symptoms of depression and anxiety. Perceived multiple forms of discrimination is shown as a moderator of the indirect effect between major stressful events and perceived stress and of the direct effect between major stressful events and symptoms of depression or anxiety.



Study aim 1: Testing if women are more vulnerable than men to the effects of major stressful life events on depression and anxiety. Process model 1 with 5000 bias-corrected bootstrap sample was applied to estimate the moderated mediation. The analysis tested if sex moderated the association between major stressful events and depression and anxiety with perceived everyday discrimination as a covariate and controlling for age, race and foreign-born status. The analysis showed that women did not show an increased vulnerability comparing with men.

Study aim 2: Testing the mediating role of perceived stress between major stressful events and symptoms of depression and anxiety and the moderating role of perceived everyday discrimination on both paths of the indirect effect (conceptual model presented in Fig.2).

Bivariate correlation analysis

Table 2 presents the mean, standard deviation and correlation coefficients of all variable included in the analysis. The analysis showed that all variables were significantly and positively associated with the two dependent variables, depression and anxiety. Major stressful events was positively associated with perceived stress, the hypothesized mediator ($r=0.21$, $p<0.01$) with a low effect size and perceived stress was positively associated with a large effect size with both health outcomes, respectively with depression ($r=0.75$, $p<0.01$) and anxiety ($r=0.78$, $p<0.01$).

Table 4.2. Means, standard deviations, and Spearman correlations among depression and anxiety and major stressful events, perceived stress and discrimination

Variable	M	SD	1	2	3	4
1.Depression	9.25	7.89				
2 Major stressful events	2.71	1.97	0.18*			
3 P Stress	22.48	6.36	0.75*	0.11*		
4 Discrimination	13.07	4.87	0.31*	0.21*	0.27*	-

Variable	M	SD	1	2	3	4
1 Anxiety	9.25	7.89				
2 Major stressful events	2.71	1.97	0.14*			
3 P Stress	22.48	6.36	0.78*	0.11*		
4 Discrimination	13.07	4.87	0.26*	0.21*	0.27*	-

* Correlations significant at 0.01 (2 tailed)

Testing for the mediation effect

The mediating effect of perceived stress on the relationship between major stressful events and depression and anxiety symptoms was examined. The demographic variables included in testing these paths were gender, age, race and foreign-born status. The results of the relations between major stressful events, perceived stress and depressive and anxiety symptoms are presented in Table 4.3 and 4.4. For depressive symptoms: The results showed that major stressful events were significantly associated with perceived stress (b=0.47, SE=0.11, 95% CI= [0.24, 0.69], p <0.001) and perceived stress with depression (b=0.87 SE=0.03, 95% CI= [0.81, 0.93], p <0.01). Both associations were positive

showing that higher numbers of experiences of major stressful events predicted higher levels of perceived stress and higher levels of perceived stress higher levels of depressive symptoms. The indirect effect of major stressful events on depression via perceived stress was statistically significant showing that perceived stress mediated that relationship (b=0.41 SE=0.10, 95% CI= [0.20, 0.63]). Further, the direct effect between major stressful events and depression given perceived stress was statistically significant (b=0.39 SE=0.09, 95% CI= [0.21, 0.58], p <0.05), showing that only partial mediation occurred. The total indirect effect was 0.41 and the total effect of major stressful events on depression (direct and indirect) was 0.81.For anxiety symptoms: The results showed that major stressful events was significantly associated with perceived stress (b=0.47, SE=0.11, 95% CI= [0.24, 0.69], p <0.001) and perceived stress with anxiety (b=1.10 SE=0.03, 95% CI= [1.03, 1.17], p <0.001). Both associations were positive showing that higher numbers of experiences of major stressful events predicted higher levels of perceived stress and higher levels of perceived stress higher levels of anxiety symptoms. The effect of major stressful experiences on anxiety was mediated by perceived stress (b=0.52 SE=0.13, 95% CI= [0.25, 0.79]). Further, the direct effect between major stressful experiences and anxiety was statistically significant (b=0.27 SE=0.10, 95% CI= [0.05, 0.48], p <0.05), showing that similarly to depression only partial mediation occurred. The total indirect effect was 0.52 and the total effect of major stressful events on anxiety (direct and indirect) was 0.79.

Table 4.3. Mediation- Association between depression and major stressful events and perceived stress

	Model 1			Model 2		
	B(SE)	95%CI	p-values	B(SE)	95%CI	p-values
Major stressful events	0.47 (0.11)	0.24, 0.69	<0.001	0.39 (0.09)	-01.02, 2.04	<0.001
Age	-0.11 (0.01)	-.0.14, -0.08	<0.001	-0.018 (0.01)	0.21, 0.58	0.19
Race	0.12 (0.58)	-1.02, 1.28	0.82	1.20 (0.47)	0.27, 2.13	<0.05
Gender	1.35 (0.44)	0.47, 2.22	<0.01	-0.23 (0.36)	-0.94, 0.47	0.51
Foreign-born	-0.70 (0.91)	-.2.49, 1.08	0.44	-0.38(0.7)	-1.83, 1.05	0.59
Perceived Stress				0.87 (0.02)	0.81, 0.93	<0.001

Abbreviations: SE standard error, CI, confidence interval

Model 1 Perceived stress regressed on major stressful events, age, race, gender and foreign-born status.

Model 2 Depression regressed on major stressful events, age, race, gender and foreign-born status.

Table 4.4. - Mediation- Association between anxiety and major stressful events and perceived stress

	Model 1			Model 2		
	B(SE)	95%CI	p-values	B(SE)	95%CI	p-values
Major stressful events	0.47 (0.11)	0.24, 0.69	<0.001	0.27(0.10)	0.05.0.48	<0.05
Age	-0.11 (0.01)	-0.14, -0.08	<0.001	-0.03 (0.01)	-0.07, -0.006	<0.05
Race	0.12(0.58)	-1.02, 1.28	0.82	0.47 (0.55)	-0.62, 1.57	0.39
Gender	1.35 (0.44)	0.47, 2.22	<0.01	-0.11 (0.42)	-0.95, 0.72	0.78
Foreign born	-0.70 (0.91)	-2.49, 1.08	0.44	-0.76 (0.86)	-2.47, 0.94	0.37
Perceived Stress				1.10 (0.03)	1.03, 1.17	<0.001

Abbreviations: SE standard error, CI, confidence interval

Model 1 Perceived stress regressed on major stressful events, age, race, gender and foreign-born status.

Model 2 Anxiety regressed on major stressful events, age, race, gender and foreign-born status.

Testing of the moderated mediation for depressive and anxiety symptoms

Process model 58 with 5000 bias-corrected bootstrap sample was applied to estimate the moderated mediation. The analysis tested if perceived discrimination moderated the association between major stressful events and perceived stress and between

perceived stress and depression, controlling for age, gender, race and foreign-born status. The analysis showed that perceived discrimination moderated both paths. More precisely, both interactions were statistically significant, respectively the interaction effect of major stressful events and discrimination on perceived stress (b=0.04 SE= 0.02, 95% CI= [0.002,0.08], p <0.05) and the interaction of perceived stress and discrimination on depression (b=0.02 SE= 0.005, 95% CI=[0.01, 0.03], p <0.001). The pick-a- point approach was used to describe the conditional indirect effects at the 1SD below the mean, at the mean and at 1 SD above the mean. The conditional indirect effect of major stressful events on depression through perceived stress was not significant at the lowest value of the moderator but was significant at the middle (b=0.28 SE=0.11, 95% CI= [0.05, 0.51] and at higher levels of perceived discrimination (b= 0.50 SE=0.13, 95% CI=[0.22, 0.77]. Similarly, the conditional indirect effect of the path between perceived stress and depression was significant at low (b=0.75, SE=0.03, 95% CI=[0.67, 0.82**]**, middle (b=0.83 SE=0.03, 95% CI= [0.77, 0.89] and at higher levels of perceived discrimination (b= 0.93, SE=0.03, 95% CI=[0.86, 1.006]. These results suggest that individuals that experienced a higher number of major stressful events report higher levels of stress if they perceive higher levels of discrimination and higher levels of stress will predict higher levels of depressive symptoms if individuals perceive higher levels of discrimination.

Process model 58 with 5000 bias-corrected bootstrap sample was applied to estimate the moderated mediation respectively to test if perceived discrimination moderated the association between major stressful events and perceived stress and between perceived stress and anxiety, controlling for age, gender, race and foreign-born status. The analysis showed that perceived discrimination moderated only the first path. The

interaction effect of major stressful events and discrimination on perceived stress was significant (b=0.04 SE= 0.02 95% CI= [0.002, 0.08], p <0.05). Perceived discrimination did not moderate the path between perceived stress and anxiety. The pick-a- point approach was used to describe the conditional indirect effect at 1 SD below the mean, at the mean level and at 1 SD above the mean. The indirect effect of major stressful events on anxiety through perceived stress was not significant at 1 SD bellow the mean but it was significant at the middle, the mean value (b=0.28 SE=0.11, 95% CI= [0.05, 0.51] and at higher levels of perceived discrimination (b= 0.50, SE=0.13, 95% CI= [0.22, 0.77]. These results suggest that individuals that experienced a higher number of major stressful events report higher levels of stress if they perceive higher levels of discrimination.

Table 4.5. Testing the moderating effect of discrimination on major stressful events and perceived stress for depression

	Model 1			Model 2		
	B(SE)	t	p-values	B(SE)	t	p-values
Major stressful events	0.28 (011)	2.47	<0.05	0.29 (0.09)	3.13	<0.001
Age	-0.09 (0.16)	-5.74	<0.001	-0.01 (0.01)	-1.19	0.23
Race	-0.67 (0.58)	-1.14	0.25	0.79 (0.47)	1.66	0.09
Gender	1.19 (0.43)	2.09	<0.05	-0.15 (0.35)	-0.42	0.66
Foreign-born	-0.23 (0.89)	-0.26	0.78	-0.13 (0.72)	-0.19	0.84
Discrimination	0.27 (0.04)	5.67	<0.001	0.11 (0.04)	2.79	<0.05

Table 4.5 (Continued)

Discrimination X Major stressful events	0.04 (0.02)	2.09	<0.05			
Perceived Stress				0.83 (0.03)	27.39	<0.001
Discrimination X Perceived stress				0.02 (0.005)	4.06	<0.001

Model 1 Perceived stress regressed on major stressful events, age, race, gender and foreign-born status and the interaction of major stressful events and discrimination

Model 2 Depression regressed on perceived stress, role strain, age, race, gender and foreign-born status and the interaction of major stressful events and discrimination.

Table 4.6. Testing the moderating effect of discrimination on major stressful events and perceived stress for anxiety

	Model 1			Model 2		
	B(SE)	t	p-values	B(SE)	t	p-values
Major stressful events	0.28 (0.11)	2.47	<0.05	0.24 (0.11)	2.11	<0.05
Age	-0.09 (0.01)	-5.74	<0.001	-0.03 (0.05)	-2.24	<0.05
Race	-0.67 (0.58)	-1.14	0.25	0.23 (0.57)	0.40	0.68
Gender	1.19 (0.43)	2.74	<0.01	-0.13 (0.43)	-0.30	0.76
Foreign-born	-0.23 (0.89)	-0.26	0.78	-0.66 (0.87)	-0.75	0.44

Table 4.6 (Continued)

Discrimination	0.27 (0.04)	5.67	<0.001	0.07 (0.04)	1.55	0.12
Discrimination X Major stressful events	0.04 (0.02)	2.09	<0.05			
Perceived Stress				1.09 (0.03)	29.7	<0.001
Discrimination X Perceived stress				0.001 (0.006)	0.23	0.81

Model 1 Perceived stress regressed on major stressful events, age, race, gender and foreign-born status and the interaction of major stressful events and discrimination

Model 2 Anxiety regressed on perceived stress, role strain, age, race, gender and foreign-born status and the interaction of major stressful events and discrimination

Fig. 4.3. Path coefficients for the mediation model.
Note: *** indicates statistically significant (P<0.001); ** indicates statistically significant (P<0.01) *(P<0.05) SE: stressful events; PS: perceived stress; DS: depressive symptoms; AX: anxiety symptoms.

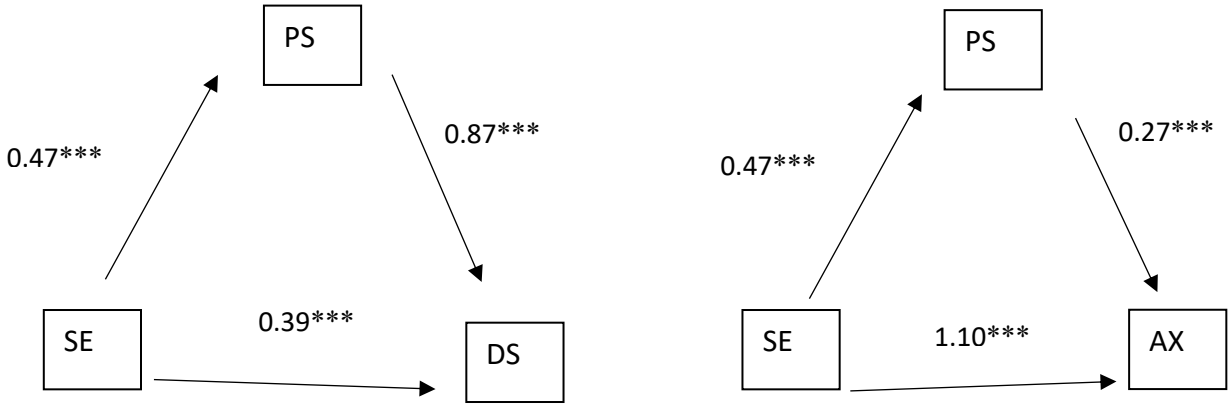


Fig. 4.4. Path coefficients for the moderated mediation model for depression.
Note: *** indicates statistically significant (P<0.001); * indicates statistically significant (P<0.05); SE: stressful events; PS: perceived stress; DS: depressive symptoms; PD: perceived discrimination. SEPD: interaction term between stressful events and perceived discrimination; PSPD: interaction term between perceived stress and perceived discrimination.

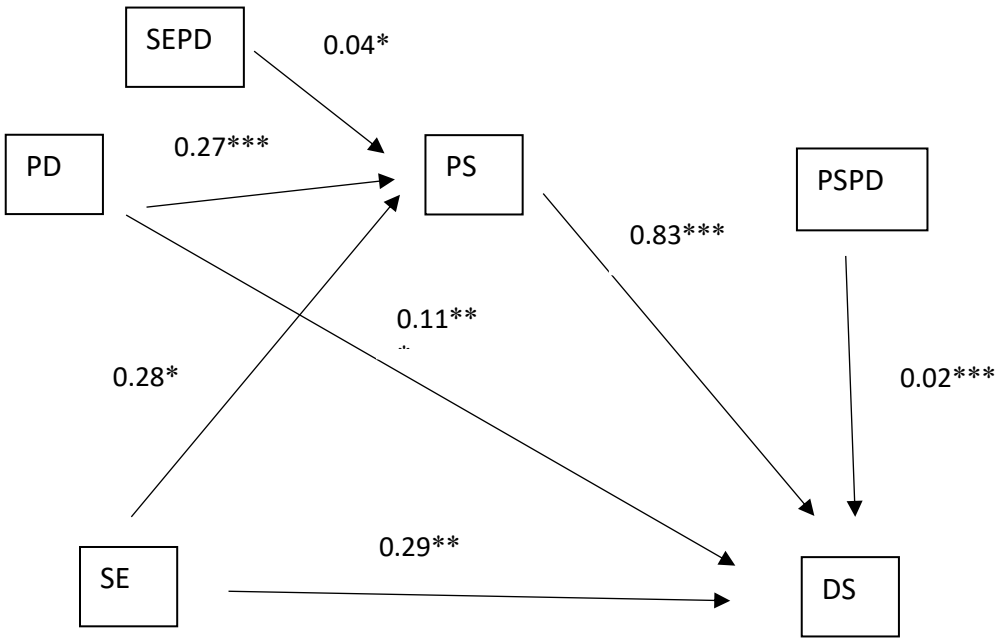
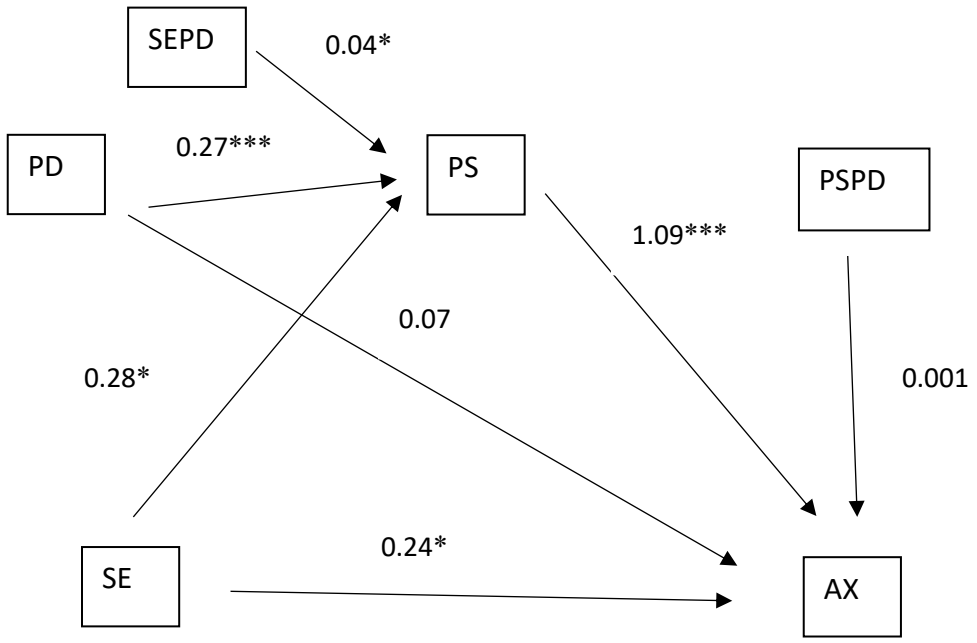


Fig. 4.5. Path coefficients for the moderated mediation model for anxiety.
Note: *** indicates statistically significant (P<0.001); * indicates statistically significant (P<0.05); SE: stressful events; PS: perceived stress; AX: anxiety symptoms; PD: perceived discrimination. SEPD: interaction term between stressful events and perceived discrimination; PSPD: interaction term between perceived stress and perceived discrimination.



Testing the conditional indirect effect

The conditional indirect effects were assessed with the pick- a-point approach and low levels of discrimination and high levels of discrimination were considered, respectively minimum observed value, mean value of the moderator and at one standard deviation above the mean. Plots were generated to visually present the conditional indirect effects in Fig. 4.6, 4.7 and 4.8.

Fig 4.6. Moderating effect of discrimination on perceived stress. This picture shows how perceived discrimination moderates the relationship between major stressful events and perceived stress such that individuals with higher number of experiences of major stressful events will perceive higher levels of stress at the low, middle and high levels of perceived discrimination.

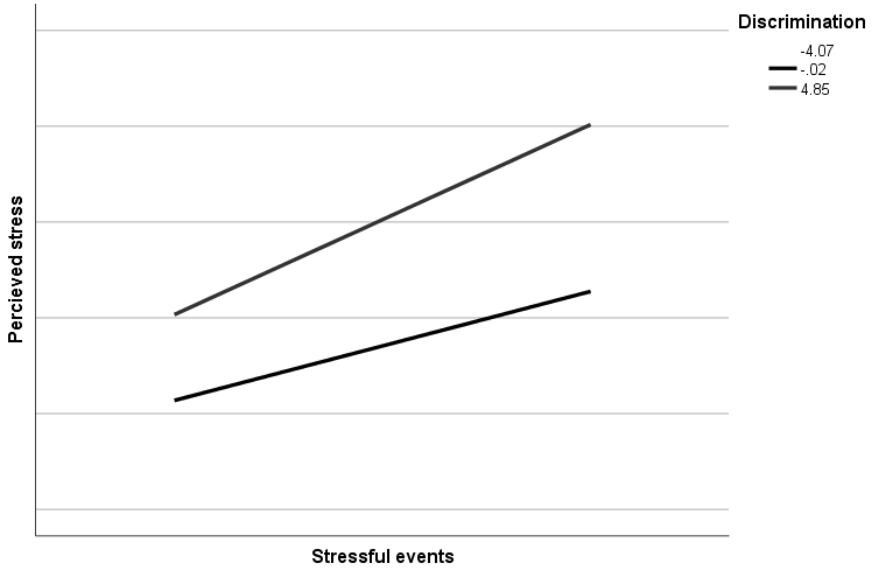


Fig. 4.7. Moderating effect of discrimination on depression. This picture shows how percieved discrimination moderates the relationship between stress and depression such that individuals with higher levels of perceived stress will have more severe depression symptoms at the low, middle and high levels of perceived discrimination.

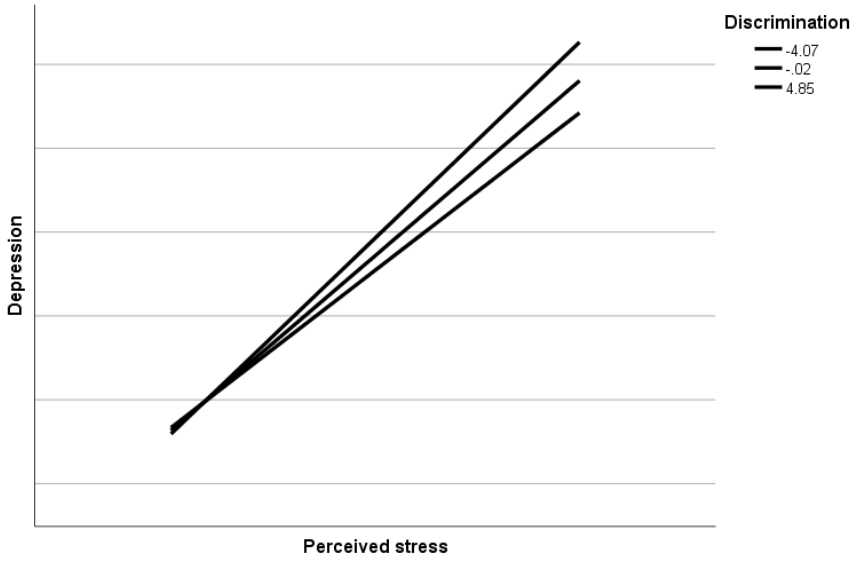
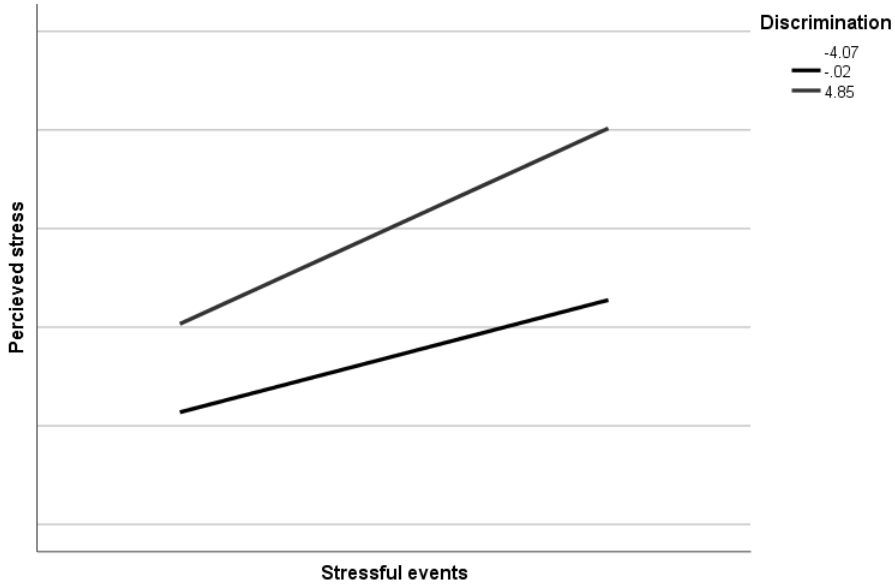


Fig.4.8. Moderating effect of discrimination on perceived stress. This pictures shows how perceived discrimination moderates the relationship between major stressful events and perceived stress such that individuals with higher number of experiences of major stressful events will perceive higher levels of stress at the middle and high levels of perceived discrimination.



Study aim 3: Testing the moderating role of perceived multiple forms of discrimination on the direct effect (path) between stressful life events on depression and anxiety and of the indirect effect of through perceived stress (conceptual model presented in Fig 4..2)

Testing of the moderated mediation for depressive symptoms

Process model 8 and indicator coding for the multicategorical moderator and 5000 bias-corrected bootstrap sample was applied to estimate the moderated mediation for depression. The analysis tested if perceived multiple forms of discrimination moderated the direct path between major stressful events and depression and the indirect effect through

perceived stress, controlling for age, gender, race and foreign-born status. The analysis showed that perceived multiple forms of discrimination did not moderate the direct path between major stressful events and depression and it moderated the indirect effect through perceived stress. More precisely, the interaction of major stressful events and two forms of discrimination on perceived stress (b=0.64 SE= 0.30, 95% CI=[0.04, 1.23], p <0.05) and the interaction of major stressful events and three or more forms of discrimination on perceived stress were statistically significant (b=0.75 SE= 0.29, 95% CI=[0.16, 0.33], p <0.05). The conditional indirect effect of major stressful events on depression through perceived stress for two forms of perceived discrimination was (b=0.74 SE=0.27, 95% CI= [0.21, 1.28]) and for three or more forms of discrimination it was (b= 0.86 SE=0.26, 95% CI=[0.34, 1.38]). The results suggest that individuals that experienced a higher number of major stressful events report higher levels of perceived stress if they perceive more forms of discrimination.

Testing of the moderated mediation for anxiety symptoms

Process model 8 and indicator coding for the multicategorical moderator and 5000 bias-corrected bootstrap sample was applied to estimate the moderated mediation for anxiety. The analysis tested if perceived multiple forms of discrimination moderated the direct path between major stressful events and anxiety and the indirect effect through perceived stress, controlling for age, gender, race and foreign-born status. The analysis showed that perceived multiple forms of discrimination did not moderate the direct path between major stressful events and anxiety and it moderated the indirect effect through perceived stress. More precisely, the interaction of major stressful events and two forms of discrimination on perceived stress (b=0.64 SE= 0.30, 95% CI=[0.04, 1.23], p <0.05) and

the interaction of major stressful events and three or more forms of discrimination on perceived stress were statistically significant (b=0.75 SE= 0.29, 95% CI=[0.16, 0.33], p <0.05). The conditional indirect effect of major stressful events on depression through perceived stress for two forms of perceived discrimination was (b=0.74 SE=0.27, 95% CI= [0.21, 1.28]) and for three or more forms of discrimination it was (b= 0.86 SE=0.26, 95% CI=[0.34, 1.38]). The results suggest that individuals that experienced a higher number of major stressful events report higher levels of perceived stress if they perceive more forms of discrimination.

Table 4.7. Testing the moderating effect of multiple forms of discrimination on major stressful events and perceived stress

	Model 1			Model 2		
	B(SE)	t	p-values	B(SE)	t	p-values
Major stressful events	0.10	0.77	0.73	0.48	4.16	<0.001
Age	-0.10	-6.10	<0.001	-0.01	-1.12	0.26
Race	-0.05	-0.09	0.92	1.14	2.41	<0.05
Gender	1.17	2.66	<0.01	-0.25	-0.70	0.47
Foreign-born	-0.50	-0.55	0.57	1.14	2.41	<0.05
Two forms of discrimination	0.96	1.43	0.15	-0.37	-0.67	0.50
Three of more forms of discrimination	2.72	3.85	<0.001	0.60	1.02	0.30
Two forms of discrimination X Major stressful events	0.64	2.09	<0.05	-0.46	-1.83	0.06
Three or more forms of discrimination X Major stressful events	0.75	2.53	<0.05	-0.14	-0.57	0.56
Perceived Stress				0.87	28.67	<0.001

Model 1 Perceived stress regressed on major stressful events, age, race, gender and foreign-born status and the interaction of major stressful events and multiple forms of discrimination (two forms of discrimination and three or more forms of discrimination).

Model 2 Depression regressed on perceived stress, role strain, age, race, gender and foreign-born status and the interaction of major stressful events and multiple forms of discrimination.

Table 4.8. Testing the moderating effect of multiple forms of discrimination on major stressful events and perceived stress

	Model 1			Model 2		
	B(SE)	t	p-values	B(SE)	t	p-values
Major stressful events	0.10	0.77	0.73	0.30	2.20	<0.05
Age	-0.10	-6.10	<0.001	-0.03	-2.06	<0.05
Race	-0.05	-0.09	0.92	0.32	0.56	0.56
Gender	1.17	2.66	<0.01	-0.19	-0.45	0.64
Foreign-born	-0.50	-0.55	0.57	-0.76	-0.87	0.38
Two forms of discrimination	0.96	1.43	0.15	0.60	0.93	0.34
Three of more forms of discrimination	2.72	3.85	<0.001	1.31	1.89	0.58
Two forms of discrimination X Major stressful events	0.64	2.09	<0.05	-0.19	-0.64	0.52
Three or more forms of discrimination X Major stressful events	0.75	2.53	<0.05	-0.22	-0.77	0.44
Perceived Stress				1.10	30.6	<0.001

Model 1 Perceived stress regressed on major stressful events, age, race, gender and foreign-born status and the interaction of major stressful events and multiple forms of discrimination (two forms of discrimination and three or more forms of discrimination).

Model 2 Anxiety regressed on perceived stress, role strain, age, race, gender and foreign-born status and the interaction of major stressful events and multiple forms of discrimination (two forms of discrimination and three or more forms of discrimination).

Fig. 4. 9. Path coefficients for the moderated mediation model for depression.
Note: *** indicates statistically significant (P<0.001); * indicates statistically significant (P<0.05); SE: stressful events; PS: perceived stress; DS: depressive symptoms; D1: Two forms of discrimination D2: three or more forms of discrimination; SED1: interaction term between stressful events and two forms of discrimination; SED2: interaction term between stressful events and three of more forms of discrimination.

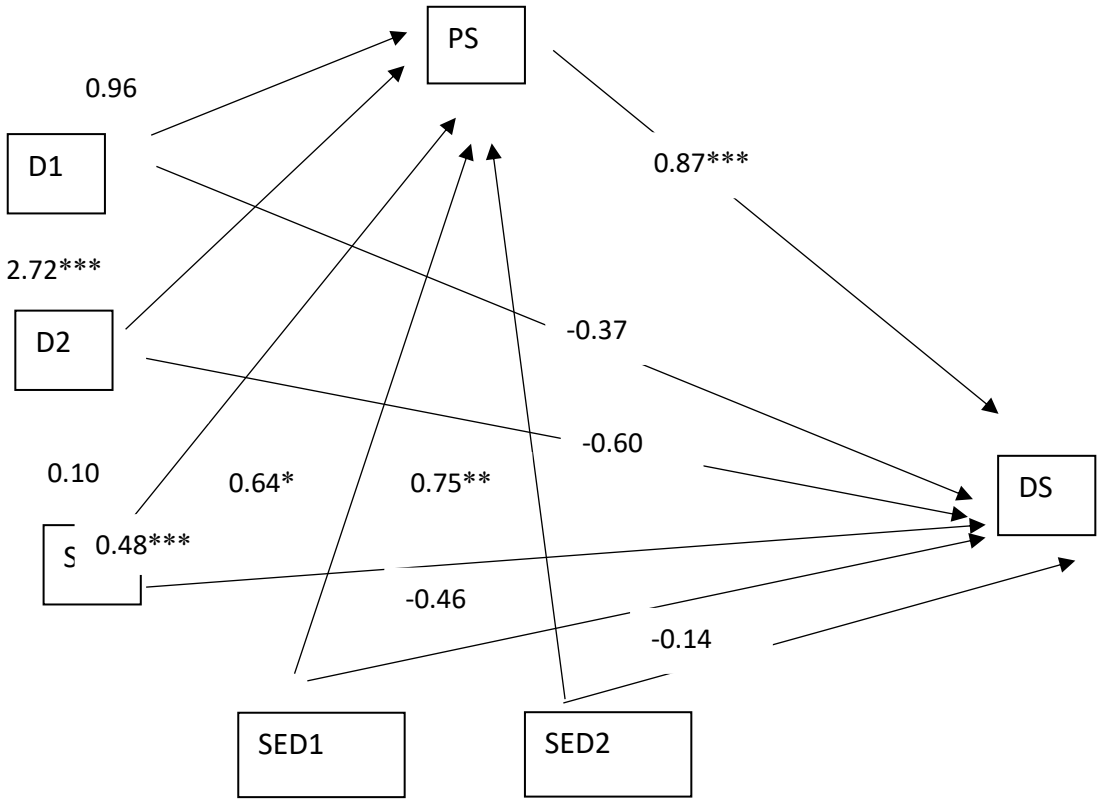
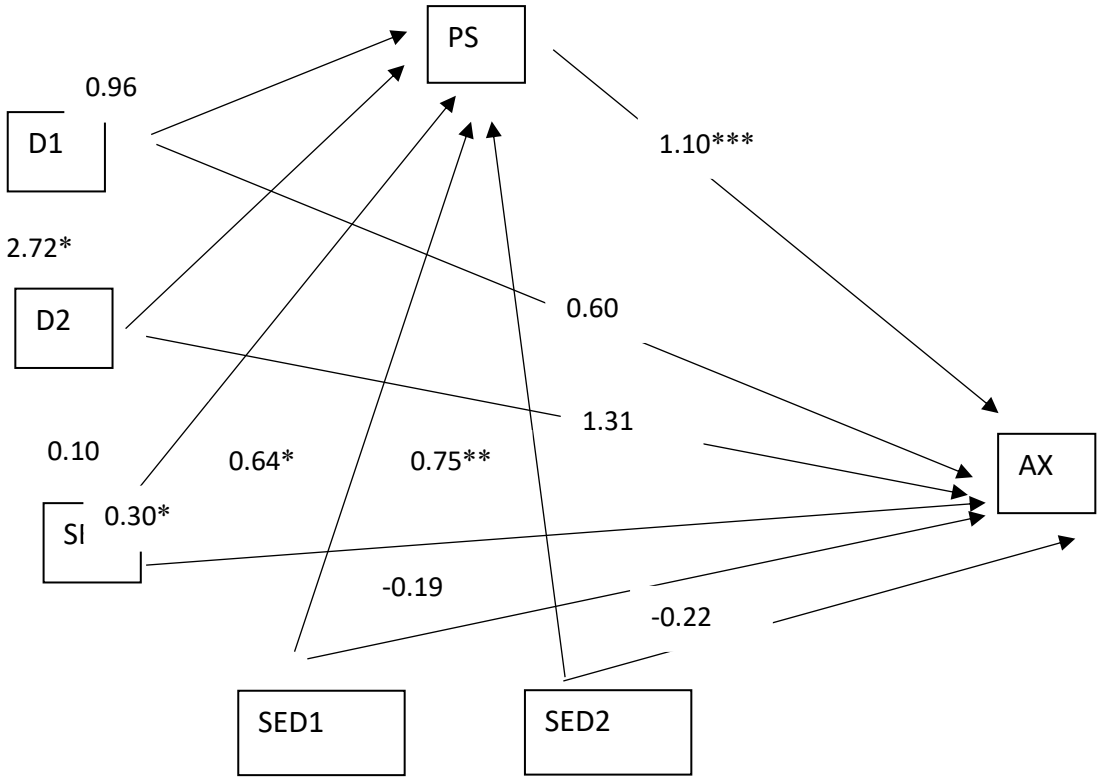


Fig. 4.10. Path coefficients for the moderated mediation model for anxiety
Note: *** indicates statistically significant (P<0.001); * indicates statistically significant (P<0.05); SE: stressful events; PS: perceived stress; AX: anxiety symptoms; D1: Two forms of discrimination D2: three or more forms of discrimination; SED1: interaction term between stressful events and two forms of discrimination; SED2: interaction term between stressful events and three of more forms of discrimination.



Discussion

The first aim of this study was to test if women had an increased vulnerability to the effects of stressful and traumatic experiences on depression and anxiety. The analysis that examined the joint effect of major stressful and traumatic events and perceived discrimination on depression and anxiety showed that women did not show an increased vulnerability comparing to men.

This paper also explored the moderating role of discrimination in the relationship between major stressful and traumatic experiences and depression and anxiety. Discrimination was measured as perceived everyday discrimination using the Perceived Everyday Discrimination Scale for the second aim of this study. For the third aim, discrimination was measured as perception of multiple forms of discrimination (multiple perceived reasons for discrimination based on different attributes such as a person's race, gender, age, social class, religion, ethnicity simultaneously).

First, before examining the moderation role of discrimination, the study examined the mediating pathway linking major stressful and traumatic experiences and depression and anxiety. In the mediation analysis, perceived stress was found to mediate the relationship between major stressful and traumatic experiences for both depression and anxiety and in both cases, partial mediation occurred. The second aim of the study was to explore if perception of an outside threat in the form of unfair treatment in interpersonal interactions in the public sphere (public sphere discrimination) could moderate the indirect path between major stressful and traumatic experiences and depression and anxiety through perceived stress. The analysis confirmed that in the presence of perceived discrimination in interpersonal interactions in the public sphere, individuals who experienced a higher number of major stressful events report higher levels of stress if they also perceive higher levels of discrimination and further, that higher levels of stress will predict higher levels of depressive symptoms if individuals perceive higher levels of discrimination. Perceived discrimination moderated only the first path, for anxiety. This result is consistent with the idea that anxiety is a future-oriented emotion (anticipation of uncertainties) and discrimination experiences signal uncertain social acceptance.

The third aim of this study was to explore if perception of multiple forms of discrimination would moderate the direct effect between major stressful events and depression and anxiety and the indirect path between major stressful events and perceived stress. The analysis suggests that discrimination does not moderate the direct paths, for both depression and anxiety but it moderated the indirect path between major events and perceived stress. For both mental health outcomes, the conditional indirect effect of major stressful events on depression and anxiety through perceived stress was significant for perception of two forms of perceived discrimination and for three or more forms of discrimination. These findings suggest that individuals who experience a greater number of major stressful events report higher levels of perceived stress if they also perceive that they have experienced multiple forms of discrimination simultaneously, based on different personal attributes such as their race, gender, ethnicity or social class, education.

Limitations and future directions

There are several limitations to this study. First, the study consisted of cross-sectional data and the study was a secondary analysis of data collected by other researchers. It is possible that associations identified in this study may run in the opposite direction. It could be possible that women and men with depression or an anxiety disorder could overestimate the amount of experiences of unfair treatment in interpersonal interactions in the public sphere, to perceive more forms of discrimination and in general to perceive others as more threatening and to have more severe consequences from discrimination.

Another important limitation is the lower generalizability of the results of this study. The study included study participants from the Biomarker project. The 2012-2016 Biomarker Project was collected inviting the large MIDUS Refresher survey participants

to have various biological tests and the final Biomarker participants were more educated and then less representative for the general U.S population. A previous Biomarker project (2004-2009) was collected prior along with MIDUS 2 and 3 and has also shown to have more educated participants. The reason this sub-sample was used was that it made possible to test the mediation and the moderated mediation.

Another limitation is related to the measures used in this study. The inventory of stressful and traumatic or adverse experiences was limited. The adverse events referred to major family events like death of a parent or own child, economic circumstances long term unemployment or bankruptcy and traumatic experiences such as physical or sexual attack, jail detention or combat. Although, various similar life event inventories have been used extensively in psychopathology research, they are subject to reliability and validity critiques, intercategorical validity and susceptibility to recall bias (Dohrenwend, 2006).

Another limitation is how multiple forms of discrimination were measured in this study. Respondents were asked to complete the Everyday Discrimination Scale and to identify the perceived reason or reasons for the discriminatory experiences. Although research in this field is very limited, previous studies highlighted that it is difficult to capture multiple forms of discrimination (Carr et al., 2013; Evans et al., 2018; Grollman, 2012; 2014; Gkiouleska et al, 2018, Wallace, Nazroo & Bécares, 2016). First, it is difficult for individuals who experience simultaneous forms of disadvantage to recall or identify a specific reason for being treated unfairly. Second, even conceptually, as suggested by the intersectionality theory it is difficult to capture the burden and consequences of simultaneous multiple marginality and disadvantage. Every individual occupies a social position that is shaped simultaneously by different systems of oppression and privilege.

More importantly, experiencing intersecting disadvantage becomes a new, unexpected experience corresponding to the unique position of each individual and not the sum of disadvantaged statuses (Gkiouleska et al, 2018; Harnois & Ifatunji, 2011).

Despite these limitations, the results of this study have important implications for mental health research. The main contribution of this study was to demonstrate the value of a moderated mediation approach to understanding complex relationships between experiences and emotions. It tested if the relationship between major stressful and traumatic experiences and depression and anxiety and how these are contingent upon the perception of perceived discrimination in the public sphere and also of perception of experiencing multiple forms of discrimination simultaneously.

This is an important finding for future studies in the field that explore the consequences of multiple forms of discrimination. Intersectionality theory posits that the simultaneous experiences of various forms of oppression like sexism, classism, racism, ageism create a unique space in which individuals' lives and experiences happen at an intersection of multiple marginal statuses (Davis, 2008; Green, Evans & Subramanian, 2017). The difficulties in examining intersectionality are expressed as methodological struggles in finding the appropriate methods for quantitative analysis that can reveal differences associated within and between categories and also in understanding the consequences of multiple forms of discrimination experiences simultaneously (Evans et al., 2018; Richman & Zucker, 2019). Health research suggests that studies should employ innovative methodologies such as multilevel models, decomposition methods or mediation analysis (Evans et al., 2018; Harnois, & Bastos, 2019). This study employed mediation analysis as suggested and this appears to be the first study to test the moderating role of

perceived multiple forms of discrimination on the indirect effect between major stressful and traumatic events and depression and anxiety symptoms. The findings support the idea that discrimination research should also consider major stressful or traumatic experiences as an increased vulnerability of individuals when experiencing unfair treatment in interpersonal interactions and also when they experience multiple forms of discrimination simultaneously.

References

Abdulrahim, S., James, S. A., Yamout, R., & Baker, W. (2012). Discrimination and psychological distress: Does Whiteness matter for Arab Americans? *Social science & medicine*, *75*(12), 2116-2123.

Alemi, Q., James, S., Cruz, R., Zepeda, V., & Racadio, M. (2013). Psychological Distress in Afghan Refugees: A Mixed-Method Systematic Review. Journal of Immigrant and Minority Health, 1-15.

Anda, R. F., Felitti, V. J., Bremner, J. D., Walker, J. D., Whitfield, C. H., Perry, B. D., ... & Giles, W. H. (2006). The enduring effects of abuse and related adverse experiences in childhood. *European archives of psychiatry and clinical neuroscience*, *256*(3), 174-186.

Ahmed, A. T., Mohammed, S. A., & Williams, D. R. (2007). Racial discrimination & health: Pathways & evidence. *Indian Journal of Medical Research*, *126*(4), 318.

Ayalon, L., & Gum, A. M. (2011). The relationships between major lifetime discrimination, everyday discrimination, and mental health in three racial and ethnic groups of older adults. *Aging & mental health*, *15*(5), 587-594.

Beatty Moody, D. L., Brown, C., Matthews, K. A., & Bromberger, J. T. (2014). Everyday discrimination prospectively predicts inflammation across 7-years in racially diverse midlife women: Study of women's health across the nation. *Journal of Social Issues*, *70*(2), 298-314.

Benner, A. D., Wang, Y., Shen, Y., Boyle, A. E., Polk, R., & Cheng, Y. P. (2018). Racial/ethnic discrimination and well-being during adolescence: A meta-analytic review. *American Psychologist*, *73*(7), 855.

Bellis, M. A., Hughes, K., Leckenby, N., Hardcastle, K. A., Perkins, C., & Lowey, H. (2015). Measuring mortality and the burden of adult disease associated with adverse childhood experiences in England: a national survey. *Journal of public health*, *37*(3), 445-454.

Boyd, A., Van de Velde, S., Vilagut, G., De Graaf, R., Florescu, S., Alonso, J., ... & EU-WMH Investigators. (2015). Gender differences in mental disorders and suicidality in Europe: results from a large cross-sectional population-based study. *Journal of affective disorders*, *173*, 245-254.

Brown, A. D., Antonius, D., Kramer, M., Root, J. C., & Hirst, W. (2010). Trauma centrality and PTSD in veterans returning from Iraq and Afghanistan. *Journal of traumatic stress*, *23*(4), 496-499.

Brown, D. W., Anda, R. F., Tiemeier, H., Felitti, V. J., Edwards, V. J., Croft, J. B., & Giles, W. H. (2009). Adverse childhood experiences and the risk of premature mortality. *American journal of preventive medicine*, *37*(5), 389-396.

Bucchianeri, M. M., Eisenberg, M. E., Wall, M. M., Piran, N., & Neumark-Sztainer, D. (2014). Multiple types of harassment: associations with emotional well-being and unhealthy behaviors in adolescents. *Journal of Adolescent Health*, *54*(6), 724-729.

Carr, E. R., Szymanski, D. M., Taha, F., West, L. M., & Kaslow, N. J. (2014). Understanding the link between multiple oppressions and depression among African American women: The role of internalization. *Psychology of Women Quarterly*, *38*(2), 233-245.

Carr, E. R., Szymanski, D. M., Taha, F., West, L. M., & Kaslow, N. J. (2014). Understanding the link between multiple oppressions and depression among African American women: The role of internalization. *Psychology of Women Quarterly*, *38*(2), 233-245.

Cohen, S., Kamarck, T., Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, *24*, 385-396.

Cohen, S., & Williamson, G. (1988). Perceived stress in a probability sample of the United States.In S. Spacapam & S. Oskamp (Eds.), *The social psychology of health: Claremont Symposium on applied social psychology.* Newbury Park, CA: Sage

Cormack, D., Stanley, J., & Harris, R. (2018). Multiple forms of discrimination and relationships with health and wellbeing: findings from national cross-sectional surveys in Aotearoa/New Zealand. *International journal for equity in health*, *17*(1), 26.

DeBlaere, C., Brewster, M. E., Bertsch, K. N., DeCarlo, A. L., Kegel, K. A., & Presseau, C. D. (2014). The protective power of collective action for sexual minority women of color: An investigation of multiple discrimination experiences and psychological distress. *Psychology of Women Quarterly*, *38*(1), 20-32.

Devins, G.M., and Orme, C.M. 1985. "Center for Epidemiologic Studies Depression Scale." *TestCritiques, 21(3), 267-283.*

Dohrenwend, B. P. (2006). Inventorying stressful life events as risk factors for psychopathology: Toward resolution of the problem of intracategory variability. *Psychological bulletin*, *132*(3), 477.

Ehring, T., Ehlers, A., Cleare, A. J., & Glucksman, E. (2008). Do acute psychological and psychobiological responses to trauma predict subsequent symptom severities of PTSD and depression? *Psychiatry Research*, *161*(1), 67-75.

Elliot, A. J., Turiano, N. A., Infurna, F. J., Lachman, M. E., & Chapman, B. P. (2018). Lifetime trauma, perceived control, and all-cause mortality: results from the Midlife in the United States study. *Health Psychology*, *37*(3), 262.

Evans, G. W., & Cassells, R. C. (2014). Childhood poverty, cumulative risk exposure, and mental health in emerging adults. *Clinical Psychological Science*, *2*(3), 287-296.

Evans, C. R., Williams, D. R., Onnela, J. P., & Subramanian, S. V. (2018). A multilevel approach to modeling health inequalities at the intersection of multiple social identities. *Social Science & Medicine*, *203*, 64-73.

Evans, C. R. (2019). Modeling the intersectionality of processes in the social production of health inequalities. *Social Science & Medicine*, *226*, 249-253.

Evans, C. R., & Erickson, N. (2019). Intersectionality and depression in adolescence and early adulthood: a MAIHDA analysis of the national longitudinal study of adolescent to adult health, 1995–2008. *Social Science & Medicine*, *220*, 1-11.

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Apitz, A. M., Edwards, V., et al. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. American Journal of Preventative Medicine, 14, 245–258.

Ford, J. D., Racusin, R., Ellis, C., Davis, W. B., Reiser, J., Fleischer, A., et al. (2000). Child maltreatment, other trauma exposure and posstraumatic symptomatology among

children with Oppositional Defiant and Attention Deficit Hyperactive disorders. Child Maltreatment, 5, 205–217.
Ford, J. D., Stockton, P., Kaltman, S., & Green, B. L. (2006). Disorders of extreme stress (DESNOS) symptoms are associated with type and severity of interpersonal trauma exposure in a sample of healthy young women. Journal of Interpersonal Violence, 21, 1399–1416.
Fuller-Rowell, T. E., Curtis, D. S., Chae, D. H., & Ryff, C. D. (2018). Longitudinal health consequences of socioeconomic disadvantage: Examining perceived discrimination as a mediator. *Health Psychology*, *37*(5), 491.
Gayman, M. D., & Barragan, J. (2013). Multiple perceived reasons for major discrimination and depression. *Society and Mental Health*, *3*(3), 203-220.
Gee, G. C., Ryan, A., Laflamme, D. J., & Holt, J. (2006). Self-reported discrimination and mental health status among African descendants, Mexican Americans, and other Latinos in the New Hampshire REACH 2010 Initiative: the added dimension of immigration. *American journal of public health*, *96*(10), 1821-1828.
Gee, G. C., Spencer, M. S., Chen, J., & Takeuchi, D. (2007). A nationwide study of discrimination and chronic health conditions among Asian Americans. *American Journal of Public Health*, *97*(7), 1275-1282.
Giurgescu, C., McFarlin, B. L., Lomax, J., Craddock, C., & Albrecht, A. (2011). Racial discrimination and the Black-White gap in adverse birth outcomes: a review. *Journal of midwifery & women's health*, *56*(4), 362-370.
Glaser, J. P., van Os, J., Portegijs, P. J. M., & Myin-Germeys, I. (2006). Childhood trauma and emotional reactivity to daily life stress in adult frequent attenders of general practitioners. Journal of Psychosomatic Research, 61, 229–236.
Glaser, D. (2000). Child abuse and neglect and the brain—A review. Journal of Child Psychology and Psychiatry, 41, 97–116. Grasso, D. J., Ford, J. D., & Briggs-Gowan, M. J. (2013). Early life trauma exposure and stress sensitivity in young children. Journal of Pediatric Psychology, 38(1), 94–103.
Gkiouleka, A., Huijts, T., Beckfield, J., & Bambra, C. (2018). Understanding the micro and macro politics of health: Inequalities, intersectionality & institutions-A research agenda. *Social Science & Medicine*, *200*, 92-98.
Green, M. A., Evans, C. R., & Subramanian, S. V. (2017). Can intersectionality theory enrich population health research?.
Grollman, E. A. (2012). Multiple forms of perceived discrimination and health among adolescents and young adults. *Journal of Health and Social Behavior*, *53*(2), 199-214.
Grollman, E. A. (2014). Multiple disadvantaged statuses and health: the role of multiple forms of discrimination. *Journal of health and social behavior*, *55*(1), 3-19.
Harnois, C. E., & Bastos, J. L. (2019). The promise and pitfalls of intersectional scale development.
Harnois, C. E., & Ifatunji, M. (2011). Gendered measures, gendered models: toward an intersectional analysis of interpersonal racial discrimination. *Ethnic and Racial Studies*, *34*(6), 1006-1028.
Hayes, A. F. (2017). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. Guilford publications.

Hermansson, A. C., Timpka, T., & Thyberg, M. (2002). The mental health of war-wounded refugees: an 8-year follow-up. The Journal of nervous and mental disease, 190(6), 374-380.

Hemmingsson, T., & Lundberg, I. (2005). How far are socioeconomic differences in coronary heart disease hospitalization, all-cause mortality and cardiovascular mortality among adult Swedish males attributable to negative childhood circumstances and behaviour in adolescence?. *International Journal of Epidemiology*, *34*(2), 260-267.

Holtan, N., Antolak, K., Johnson, D. R., Ide, L., Jaranson, J., & Ta, K. (2002). Unrecognized torture affects the health of refugees. Minnesota medicine, 85(5), 35-39.

Howard, L. M., Ehrlich, A. M., Gamlen, F., & Oram, S. (2017). Gender-neutral mental health research is sex and gender biased. *The Lancet Psychiatry*, *4*(1), 9-11.

Huebner, D. M., Rebchook, G. M., & Kegeles, S. M. (2004). Experiences of harassment, discrimination, and physical violence among young gay and bisexual men. *American Journal of Public Health*, *94*(7), 1200-1203.

Hunte, H. E., & Williams, D. R. (2009). The association between perceived discrimination and obesity in a population-based multiracial and multiethnic adult sample. *American journal of public health*, *99*(7), 1285-1292.

Jamil, H., Nassar-McMillan, S., Lambert, R., Wang, Y., Ager, J., & Arnetz, B. (2010). Pre- and post-displacement stressors and time of migration as related to self-rated health among Iraqi immigrants and refugees in Southeast Michigan.Medicine, Conflict and Survival, 26(3), 207-222.

Kelly-Irving, M., Lepage, B., Dedieu, D., Bartley, M., Blane, D., Grosclaude, P., ... & Delpierre, C. (2013). Adverse childhood experiences and premature all-cause mortality. *European journal of epidemiology*, *28*(9), 721-734.

Kessler, R. C., Mickelson, K. D., & Williams, D. R. (1999). The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. *Journal of health and social behavior*, 208-230.

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of general psychiatry*, *62*(6), 593-602.

Kessler, R. C. (2007). The global burden of anxiety and mood disorders: putting ESEMeD findings into perspective. *The Journal of clinical psychiatry*, *68*(Suppl 2), 10.

Kessler, R. C., Petukhova, M., Sampson, N. A., Zaslavsky, A. M., & Wittchen, H. U. (2012). Twelve-month and lifetime prevalence and lifetime morbid risk of anxiety and mood disorders in the United States. *International journal of methods in psychiatric research*, *21*(3), 169-184.

Kim, I. H., Carrasco, C., Muntaner, C., McKenzie, K., & Noh, S. (2013). Ethnicity and post migration health trajectory in new immigrants to Canada. *American Journal of Public Health*, *103*(4), e96-e104

Krieger, N. (1990). Racial and gender discrimination: risk factors for high blood pressure?. *Social science & medicine*, *30*(12), 1273-1281.

Krieger, N. (2001a). A glossary for social epidemiology. *Journal of Epidemiology & Community Health*, *55*(10), 693-700.

Krieger, N. (2003). Genders, sexes, and health: what are the connections—and why does it matter?. *International journal of epidemiology*, *32*(4), 652-657.

Krieger, N., & Davey Smith, G. (2004). "Bodies count," and body counts: social epidemiology and embodying inequality. *Epidemiologic reviews*, *26*(1), 92-103.

Krieger, N. (2011). *Epidemiology and the people's health: theory and context*. Oxford University Press.

Koch-Weser, S., Liang, S. L., & Grigg-Saito, D. C. (2006). Self-reported health among Cambodians in Lowell, Massachusetts. Journal of health care for the poor and underserved, 17(2), 133-145.

Kuehner, C. (2017). Why is depression more common among women than among men?. *The Lancet Psychiatry*, *4*(2), 146-158.

Kulkarni, M., Porter, K. E., & Rauch, S. A. (2012). Anger, dissociation, and PTSD among male veterans entering into PTSD treatment. *Journal of anxiety disorders*, *26*(2), 271-278.

Lewis, T. T., Aiello, A. E., Leurgans, S., Kelly, J., & Barnes, L. L. (2010). Self-reported experiences of everyday discrimination are associated with elevated C-reactive protein levels in older African-American adults. *Brain, behavior, and immunity*, *24*(3), 438-443.

Lewis, T. T., Cogburn, C. D., & Williams, D. R. (2015). Self-reported experiences of discrimination and health: scientific advances, ongoing controversies, and emerging issues. *Annual review of clinical psychology*, *11*, 407-440.

Li, L., & Dong, X. (2017). Self-reported Discrimination and Depressive Symptoms Among Older Chinese Adults in Chicago. *Journals of Gerontology Series A: Biomedical Sciences and Medical Sciences, 72*(Suppl1), S119-S124.

Li, S. H., & Graham, B. M. (2017). Why are women so vulnerable to anxiety, trauma-related and stress-related disorders? The potential role of sex hormones. *The Lancet Psychiatry*, *4*(1), 73-82.

Lie, B. (2002). A 3-year follow-up study of psychosocial functioning and general symptoms in settled refugees. Acta Psychiatrica Scandinavica, 106(6), 415-425.

Logie, C., James, L., Tharao, W., & Loutfy, M. (2013). Associations between HIV-related stigma, racial discrimination, gender discrimination, and depression among HIV-positive African, Caribbean, and Black women in Ontario, Canada. *AIDS patient care and STDs*, *27*(2), 114-122.

Matanov, A., Giacco, D., Bogic, M., Ajdukovic, D., Franciskovic, T., Galeazzi, G. M., ... & Priebe, S. (2013). Subjective quality of life in war-affected populations. BMC public health, 13(1), 624.

Matheson, K., Foster, M. D., Bombay, A., McQuaid, R. J., & Anisman, H. (2019). Traumatic experiences, perceived discrimination, and psychological distress among members of various stigmatized groups. *Frontiers in psychology*, *10*, 416.

Mayor, E. (2015). Gender roles and traits in stress and health. *Frontiers in psychology*, *6*, 779.

McHugo, G. J., Caspi, Y., Kammerer, N., Mazelis, R., Jackson, E., Russell, L., ... & Kimerling, R. (2005). The assessment of trauma history in women with co-occurring substance abuse and mental disorders and a history of interpersonal violence. *The journal of behavioral health services & research*, *32*(2), 113-127.

McLean, C. P., Asnaani, A., Litz, B. T., & Hofmann, S. G. (2011). Gender differences in anxiety disorders: prevalence, course of illness, comorbidity and burden of illness. *Journal of psychiatric research*, *45*(8), 1027-1035.

McCabe, S. E., Bostwick, W. B., Hughes, T. L., West, B. T., & Boyd, C. J. (2010). The relationship between discrimination and substance use disorders among lesbian, gay, and bisexual adults in the United States. *American journal of public health*, *100*(10), 1946-1952.

Mersky, J. P., Janczewski, C. E., & Nitkowski, J. C. (2018). Poor mental health among low-income women in the US: The roles of adverse childhood and adult experiences. *Social Science & Medicine*, *206*, 14-21

Mollica, R. F., McInnes, K., Sarajlić, N., Lavelle, J., Sarajlić, I., & Massagli, M. P. (1999). Disability associated with psychiatric comorbidity and health status in Bosnian refugees living in Croatia. Jama, 282(5), 433-439.

Moradi, B., & Risco, C. (2006). Perceived discrimination experiences and mental health of Latina/o american persons. *Journal of Counseling Psychology, 53*(4), 411-421.

Mouzon, D. M., Taylor, R. J., Woodward, A. T., & Chatters, L. M. (2017). Everyday racial discrimination, everyday non-racial discrimination, and physical health among African-Americans. *Journal of ethnic & cultural diversity in social work*, *26*(1-2), 68-80.

Nolen-Hoeksema, S. (2001). Gender differences in depression. *Current directions in psychological science*, *10*(5), 173-176.

Norredam, M., Garcia-Lopez, A., Keiding, N., & Krasnik, A. (2009). Risk of mental disorders in refugees and native Danes: a register-based retrospective cohort study. Social psychiatry and psychiatric epidemiology, 44(12), 1023-1029.

Pascoe, E. A., & Smart Richman, L. (2009). Perceived discrimination and health: a meta-analytic review. *Psychological bulletin*, *135*(4), 531.

Paradies, Y. (2006). A systematic review of empirical research on self-reported racism and health. *International journal of epidemiology*, *35*(4), 888-901

Piccinelli, M., & Wilkinson, G. (2000). Gender differences in depression: Critical review. *The British Journal of Psychiatry*, *177*(6), 486-492.

Plante, T. G., Simicic, A., Andersen, E. N., & Manuel, G. (2002). Stress and coping among displaced Bosnian refugees: An exploratory study. International Journal of Stress Management, 9(1), 31-41.

Riecher-Rössler, A. (2017). Sex and gender differences in mental disorders. *The Lancet Psychiatry*, *4*(1), 8-9.

Pérez, D. J., Fortuna, L., & Alegria, M. (2008). Prevalence and correlates of everyday discrimination among US Latinos. *Journal of community psychology*, *36*(4), 421-433.

Huebner, D. M., Rebchook, G. M., & Kegeles, S. M. (2004). Experiences of harassment, discrimination, and physical violence among young gay and bisexual men. *American Journal of Public Health*, *94*(7), 1200-1203.

Paradies, Yin, Jehonathan Ben, Nida Denson, Amanuel Elias, Naomi Priest, Alex Pieterse, Arpana Gupta, Margaret Kelaher, and Gilbert Gee. "Racism as a determinant of health: a systematic review and meta-analysis." *PloS one* 10, no. 9 (2015).

Pilver, C. E., Desai, R., Kasl, S., & Levy, B. R. (2011). Lifetime discrimination associated with greater likelihood of premenstrual dysphoric disorder. *Journal of Women's Health*, *20*(6), 923-931.

Radloff, L.S. 1977. "The CES-D Scale: A self-report depression scale for research in the general population." *Applied Psychology Measurement, 1(3), 385-401.*

Richman, L. S., & Zucker, A. N. (2019). Quantifying intersectionality: an important advancement for health inequality research. *Social Science & Medicine*, *226*, 246-248.

Robinson, E., Sutin, A., & Daly, M. (2017). Perceived weight discrimination mediates the prospective relation between obesity and depressive symptoms in US and UK adults. *Health Psychology*, *36*(2), 112.

Roberts, R.E., and Vernon, S.W. 1983. "The center for epidemiologic studies depression scale: Itsuse in a community sample." *American Journal of Psychiatry, 140(1), 41-46.*

Rodriguez, E., Frongillo, E. A., & Chandra, P. (2001). Do social programs contribute to mental well-being? The long-term impact of unemployment on depression in the United States. *International Journal of Epidemiology*, *30*(1), 163-170.

Romito, P., Turan, J. M., & De Marchi, M. (2005). The impact of current and past interpersonal violence on women's mental health. *Social science & medicine*, *60*(8), 1717-1727.

Ryff C, Almeida D, Binkley N, Carr D, Coe C, Davidson R. et al. National Survey of Midlife Development in the United States (MIDUS Refresher), 2011–2014. Ann Arbor, MI: Interuniversity Consortium for Political and Social Research; 2016. ICPSR36532-v2

Salk, R. H., Hyde, J. S., & Abramson, L. Y. (2017). Gender differences in depression in representative national samples: meta-analyses of diagnoses and symptoms. *Psychological bulletin*, *143*(8), 783.

Schmitt, M. T., Branscombe, N. R., & Postmes, T. (2003). Women's emotional responses to the pervasiveness of gender discrimination. *European Journal of Social Psychology*, *33*(3), 297-312.

Schmitt, M. T., Branscombe, N. R., Postmes, T., & Garcia, A. (2014). The consequences of perceived discrimination for psychological well-being: A meta-analytic review. *Psychological bulletin*, *140*(4), 921.

Schulz, A. J., Gravlee, C. C., Williams, D. R., Israel, B. A., Mentz, G., & Rowe, Z. (2006). Discrimination, symptoms of depression, and self-rated health among African American women in Detroit: results from a longitudinal analysis. *American journal of public health*, *96*(7), 1265-1270

Scheim, A. I., & Bauer, G. R. (2019). The Intersectional Discrimination Index: development and validation of measures of self-reported enacted and anticipated discrimination for intercategorical analysis. *Social Science & Medicine*, *226*, 225-235.

Seedat, S., Scott, K. M., Angermeyer, M. C., Berglund, P., Bromet, E. J., Brugha, T. S., ... & Karam, E. G. (2009). Cross-national associations between gender and mental disorders in the World Health Organization World Mental Health Surveys. *Archives of general psychiatry*, *66*(7), 785-795.

Sternthal, M. J., Slopen, N., & Williams, D. R. (2011). Racial disparities in health: The impact of multi-dimensional measures of race/ethnicity on the self-reported health status of Latinos. *Bois Rev Soc Sci Res Race*, *8*(1), 95-113.

Stepanikova, I., Bateman, L. B., & Oates, G. R. (2017). Systemic inflammation in midlife: race, socioeconomic status, and perceived discrimination. *American journal of preventive medicine*, *52*(1), S63-S76.

Spielberger, C. D. (1983). Manual for the state–trait anxiety inventory (Form Y) ("Self-evaluation questionnaire"), Consulting Psychologists Press, Palo Alto, CA.

Spielberger, C. D. (1989). State–trait anxiety inventory: a comprehensive bibliography. , ConsultingPsychologists Press, Palo Alto, CA.

Stuber, J., Galea, S., Ahern, J., Blaney, S., & Fuller, C. (2003). The association between multiple domains of discrimination and self-assessed health: a multilevel analysis of Latinos and blacks in four low-income New York City neighborhoods. *Health Services Research*, *38*(6p2), 1735-1760.

Sutin, A. R., Stephan, Y., & Terracciano, A. (2015). Weight discrimination and risk of mortality. *Psychological science*, *26*(11), 1803-1811.

Swisher, R. R., & Shaw-Smith, U. R. (2015). Paternal incarceration and adolescent well-being: Life course contingencies and other moderators. *The Journal of criminal law & criminology*, *104*(4).

Thompson, V. L. S., Noel, J. G., & Campbell, J. (2004). Stigmatization, discrimination, and mental health: The impact of multiple identity status. *American Journal of Orthopsychiatry*, *74*(4), 529-544.

Turner, R. J., & Wheaton, B. (1995). Checklist measurement of stressful life events. *Measuring stress: A guide for health and social scientists*, 29-58.

Umaña-Taylor, A. J., & Updegraff, K. A. (2007). Latino adolescents' mental health: Exploring the interrelations among discrimination, ethnic identity, cultural orientation, self-esteem, and depressive symptoms. *Journal of adolescence*, *30*(4), 549-567.

Wallace, S., Nazroo, J., & Bécares, L. (2016). Cumulative effect of racial discrimination on the mental health of ethnic minorities in the United Kingdom. *American Journal of Public Health*, *106*(7), 1294-1300.

Zuo, B., Zhang, X., Wen, F. F., & Zhao, Y. (2020). The influence of stressful life events on depression among Chinese university students: Multiple mediating roles of fatalism and core self-evaluations. *Journal of affective disorders*, *260*, 84-90.

Veenstra, G. (2013). The gendered nature of discriminatory experiences by race, class, and sexuality: A comparison of intersectionality theory and the subordinate male target hypothesis. *Sex roles*, *68*(11-12), 646-659.

Wallace, S., Nazroo, J., & Bécares, L. (2016). Cumulative effect of racial discrimination on the mental health of ethnic minorities in the United Kingdom. *American Journal of Public Health*, *106*(7), 1294-1300.

Weltz, S. M., Armeli, S., Ford, J. D., & Tennen, H. (2016). A daily process examination of the relationship between childhood trauma and stress-reactivity. *Child Abuse & Neglect*, *60*, 1-9.

Williams, D. R., & Mohammed, S. A. (2009). Discrimination and racial disparities in health: evidence and needed research. *Journal of behavioral medicine*, *32*(1), 20-47.

Williams, S. L., Williams, D. R., Stein, D. J., Seedat, S., Jackson, P. B., & Moomal, H. (2007). Multiple traumatic events and psychological distress: the South Africa stress and health study. *Journal of traumatic stress*, *20*(5), 845-855.

Williams, D. R., Yu, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health: Socio-economic status, stress an discrimination. *Journal of health psychology*, *2*(3), 335-351.

Chapter 5: Conclusion

Summary and discussion of results

This dissertation explored the relationship between perceived discrimination and intrahousehold inequality and major stressful events in the development of depression, anxiety and PTSD in three separate papers.

In the first paper, I examined the relationship between everyday discrimination, intrahousehold inequality, depression, and PTSD among first- and second-generation Latino and Asian women. In this study I used data from the National Latino and Asian American Study, a nationally representative community survey of Latino and Asian households and I found that first- and second-generation immigrant and refugee women experience intra-household inequality such as having no say in final decisions, experiencing excessive demands from their spouse or partner and moderate or severe violence. I also found that both discrimination and intrahousehold inequality made a separate and a significant contribution to increasing women's risk for meeting criteria for depression and PTSD.

The second paper had two small substudies. In the first substudy I used data from the 2011-2014 MIDUS Refresher study, a national probability sample of U.S adults and I examined the relationship between perceived everyday discrimination, intrahousehold inequality, and depression and anxiety among women and men. I found that everyday discrimination and perceived role strain from a spouse or a partner were associated with depression, but perceived discrimination was not associated with anxiety. Interestingly, the association between role strain and depression and anxiety was stronger for men. Also, an

interesting finding was also that at higher levels of perceived role strain first-generation immigrant men were more likely than U.S born men to experience depression.

In the second substudy of this paper I used a subsample of the 2011-2014 MIDUS Refresher study collected a few years later, the 2012-2016 MIDUS Refresher Biomarker to explore a potential pathway between role strain and depression and anxiety symptoms and whether these processes were contingent upon the perception of discrimination in social interactions (in the public sphere). I found that perceived stress mediated the relationship between role strain and depression and anxiety. Further, the findings also confirmed that in the presence of perceived discrimination in interpersonal interactions, intrahousehold inequality was associated with more psychological distress and more severe symptoms of depression and anxiety.

In the last paper, I used data from the 2012-2016 MIDUS Refresher Biomarker and I examined the association between major stressful and traumatic events, perceived discrimination, and anxiety and depression among women and men. In this paper, I explored perceived discrimination measured as a scale and as a perception of multiple forms of discrimination experienced simultaneously. The multiple forms of discrimination were defined by the person as an identified specific personal attribute for which he or she believed to be the reason for unfair treatment. I first examined a potential pathway between adverse experiences and depression and anxiety symptoms, and I found that perceived stress mediates these relationships. In the second part, I tested the moderating role of discrimination and of perceived multiple forms of discrimination (separately).

The two moderated mediation analyses from this last paper had interesting findings. First, I found that individuals who reported a greater number of major stressful events

reported higher levels of stress if they perceive higher levels of discrimination and, further, that higher levels of stress predicted higher levels of depressive symptoms if they perceive higher levels of discrimination. In the case of anxiety, the conditional indirect effect of discrimination was significant only for the first path. As expected, the results suggest that individuals who reported a greater number of major stressful events reported higher levels of stress if they perceive higher levels of discrimination. Perception of multiple forms of discrimination (two forms or there or more) was associated with higher levels of perceived stress but did not moderate the direct paths between major stressful events and the two health outcomes, depression and anxiety.

Implications for gender analysis and social work practice

The introductory chapter presents a literature review of gender inequality across the world showing how women embody inequality from an early age and throughout their lives. This review suggests the need to consider and explore women's potentially greater vulnerability to experiences of discrimination and to various forms of inequality that are also experienced simultaneously and with complex interactions (Hammarström et al., 2014; Krieger, 2003). As previously suggested by gender analysis in health research: "gender is a composite of many factors including social status, income, empowerment, equality and access to resources" (Philips, pg. 369).

In the three papers of this dissertation I explored how women embody the consequences of interpersonal discrimination in the public sphere in the form of mental health problems. I also examined whether they have an increased vulnerability due to other forms of inequality experienced simultaneously. I used Krieger's eco-social theory as a guide, a theory that posits that humans biologically incorporate the world they live in

through multiple pathways, throughout their lives and their bodies will 'remember' their lives, their lived inequalities, and experiences of injustice in ill health (Krieger 2004; 2004b). The pathways of embodiment explored in the three papers of my dissertation were: discrimination and intrahousehold inequality among first-and-second generation Asian and Latina women in the first study, discrimination and intrahousehold inequality among women and men in a U.S representative sample of adults and discrimination and stressful and traumatic adverse experiences among women and men in the last paper.

My findings contribute to a growing body of work that reveals the harming effects of unfair treatment in the public and private sphere. The findings in the three papers have shown the deleterious effect of interpersonal discrimination in the public sphere with direct effects on mental health but also considering how discrimination intensifies the effect (as a moderator) of intrahousehold inequality and of stressful and traumatic events reported by women and men.

The findings of the first paper expand our understanding about important stressors in the lives of first-and-second generation immigrant and refugee Latina and Asian American women. I found that both first- and the second-generation immigrant women among both ethnic groups experience inequality in their relationships and intrahousehold inequality is reproduced or at least experienced by succeeding generations. Further, both discrimination in interpersonal interactions in the public sphere and inequality in private life are important determinants of their mental health, increasing their risk of experiencing depression and PTSD. Social workers will need to consider the role of intrahousehold inequality in the lives of immigrant women as an important stressor and consider how intrahousehold inequality exacerbates coping with other post-migration stressors such as financial insecurity, isolation, unemployment, and experiences of discrimination. Future

studies should explore if pre-migration trauma increases a women's vulnerability to the effects of unfair treatment and inequality experienced in the private and public sphere post-migration. Also, studies should explore how an outside threat such as discrimination can exacerbate coping with daily stressors and the negative consequences of intrahousehold processes and inequality on mental and physical health and wellbeing. The second and the third study showed that women do not have an increased vulnerability to the effects of intrahousehold inequality and of the effect of stressful and traumatic events on depression and anxiety. The second paper that explored the joint effect of discrimination and intrahousehold inequality comparing women and men found that intrahousehold processes have more severe consequences for men than for women. Counterintuitively, while more women than men reported being a caregiver for an ill family member or a friend because of a physical or mental condition, illness, or disability in the year prior to the study, caregiving for more than one month was associated with depression only among men. Similarly, perception of role strain from a partner or a spouse was associated with a higher likelihood of experiencing depression and anxiety among men. The third paper examined whether women could have a potentially increased vulnerability to the effect of stressful and traumatic events (when experienced along with societal discrimination) on depression and anxiety. Women did not show an increased vulnerability.

The last two empirical papers also tested the potential moderating role of discrimination, a potential conditional indirect effect of discrimination on depression and anxiety. I found that in the presence of perceived discrimination in interpersonal interactions in the public sphere, intrahousehold inequality is associated with more psychological distress and more severe symptoms of depression. In other words, intrahousehold processes are contingent upon a perceived outside threat and unfairness in

the public sphere and are associated with more severe mental health consequences and more psychological distress.

This is an important finding for social work practice and mental health research. My findings represent empirical support for previous theories of defeat and entrapment that have been developed to explain depression, anxiety, and PTSD and the study also supports gender analysis that has used the game theory to understand women's exit options and bargaining power in a family, conceptualized as a cooperative game. Perception of discrimination has also been found to moderate the relationship between major stressful and traumatic experiences and depression and anxiety. I found that higher levels of perceived discrimination were associated with higher levels of perceived distress and discrimination also moderated the path between distress and depression. Similarly, experiencing two forms or more forms of discrimination was also associated with higher levels of distress, in a dose-response fashion.

Taken all together, the findings of these three papers and the literature review highlight the need to consider intrahousehold inequality, adult adverse experiences and of discrimination in the public sphere as important determinants of mental health of immigrant women and of women and men in the U.S. The findings of this studies expand our understanding of the role of discrimination, as unfair treatment in the public sphere and has shown that discrimination has direct effects on mental disorders but also moderates indirect effects of other forms of stress or inequality experienced, increasing the severity of consequences of experiences of intrahousehold inequality and of stressful and traumatic adverse experiences.

References

Hammarström, A., Johansson, K., Annandale, E., Ahlgren, C., Aléx, L., Christianson, M., ... & Gustafsson, P. E. (2014). Central gender theoretical concepts in health research: the state of the art. *J Epidemiol Community Health*, *68*(2), 185-190.

Krieger, N. (2003). Genders, sexes, and health: what are the connections—and why does it matter?. *International journal of epidemiology*, *32*(4), 652-657.

Phillips, S. P. (2008). Measuring the health effects of gender. *Journal of Epidemiology & Community Health*, *62*(4), 368-371.

References

Chapter 1

Abdulrahim, S., James, S. A., Yamout, R., & Baker, W. (2012). Discrimination and psychological distress: Does Whiteness matter for Arab Americans? *Social science & medicine*, *75*(12), 2116-2123.

Abraido-Lanza, A. F., Chao, M. T., & Florez, K. R. (2005). Do healthy behaviors decline with greater acculturation? Implications for the Latino mortality paradox. *Social science & medicine*, *61*(6), 1243-1255.

Acevedo-Garcia, D., & Almeida, J. (2012). Special issue introduction: place, migration and health. *Social science & medicine (1982)*, *75*(12), 2055.

Acevedo-Garcia, D., Sanchez-Vaznaugh, E. V., Viruell-Fuentes, E. A., & Almeida, J. (2012). Integrating social epidemiology into immigrant health research: a cross-national framework. *Social science & medicine*, *75*(12), 2060-2068.

Acevedo-Garcia, D., Bates, L. M., Osypuk, T. L., & McArdle, N. (2010). The effect of immigrant generation and duration on self-rated health among US adults 2003–2007. Social science & medicine, 71(6), 1161-1172.

Adames, S. B., & Campbell, R. (2005). Immigrant Latinas' conceptualizations of intimate partner violence. *Violence Against Women*, *11*(10), 1341-1364.

Adanu, R. M., & Johnson, T. R. (2009). Migration and women's health. *International Journal of Gynecology & Obstetrics*, *106*(2), 179-181.

Afifi, T. O., Enns, M. W., Cox, B. J., Asmundson, G. J., Stein, M. B., & Sareen, J. (2008). Population attributable fractions of psychiatric disorders and suicide ideation and attempts associated with adverse childhood experiences. *American journal of public health*, *98*(5), 946-952.

Alegria, M., Takeuchi, D., Canino, G., Duan, N., Shrout, P., Meng, X. L., ... & Vera, M. (2004). Considering context, place and culture: The National Latino and Asian American Study. *International journal of methods in psychiatric research*, *13*(4), 208-220.

Alegría, M., Canino, G., Shrout, P. E., Woo, M., Duan, N., Vila, D., ... & Meng, X. L. (2008). Prevalence of mental illness in immigrant and non-immigrant US Latino groups. *American Journal of Psychiatry*, *165*(3), 359-369.

Alemi, Q., James, S., Cruz, R., Zepeda, V., & Racadio, M. (2013). Psychological Distress in Afghan Refugees: A Mixed-Method Systematic Review. Journal of Immigrant and Minority Health, 1-15.

Amanor-Boadu, Y., Messing, J. T., Stith, S. M., Anderson, J. R., O'Sullivan, C. S., & Campbell,

J. C. (2012). Immigrant and Nonimmigrant Women Factors That Predict Leaving an Abusive Relationship. *Violence against women*, *18*(5), 611-633

Ameyaw, E. K., Tanle, A., Kissah-Korsah, K., & Amo-Adjei, J. (2016). Women's health decision-making autonomy and skilled birth attendance in Ghana. *International journal of reproductive medicine*, *2016*.

Amnesty International (2014). Torture in 2014. 30 Years of broken promises. Retrieved from https://www.amnesty.org/en/documents/ACT40/004/2014/en/

Anda, R. F., Whitfield, C. L., Felitti, V. J., Chapman, D., Edwards, V. J., Dube, S. R., & Williamson, D. F. (2002). Adverse childhood experiences, alcoholic parents, and later risk of alcoholism and depression. *Psychiatric services*, *53*(8), 1001-1009.

Anda, R., Felitti, VJ, Walker, J, Whit, CL (2006). "The enduring effects of abuse and related adverse experiences in childhood: A convergence of evidence from neurobiology and epidemiology." European Archives of Psychiatry and Clinical Neurosciences 256(3): 174-186.

Angel, J. L., & Angel, R. J. (1992). Age at migration, social connections, and well-being among elderly Hispanics. *Journal of aging and health*, *4*(4), 480-499

Arnold, F., Kishor, S., & Roy, T. K. (2002). Sex-Selective Abortions in India. *Population and development review*, *28*(4), 759-785.

Ayala, G. X., Baquero, B., & Klinger, S. (2008). A systematic review of the relationship between acculturation and diet among Latinos in the United States: implications for future research. *Journal of the American Dietetic Association*, *108*(8), 1330-1344.

Bailey, Z. D., Krieger, N., Agénor, M., Graves, J., Linos, N., & Bassett, M. T. (2017). Structural racism and health inequities in the USA: evidence and interventions. *Lancet (London, England)*, *389*(10077), 1453-1463.

Bambra, C., Pope, D., Swami, V., Stanistreet, D., Roskam, A., Kunst, A., & Scott-Samuel, A. (2009). Gender, health inequalities and welfare state regimes: a cross-national study of 13 European countries. *Journal of Epidemiology & Community Health*, *63*(1), 38-44.

Beegle, K., Frankenberg, E., & Thomas, D. (2001). Bargaining power within couples and use of prenatal and delivery care in Indonesia. *Studies in family planning*, *32*(2), 130-146.

Bent-Goodley, T. B. (2007). Health disparities and violence against women: Why and how cultural and societal influences matter. *Trauma, Violence, & Abuse*, *8*(2), 90-104.

Berg, R. C., & Denison, E. (2013). A tradition in transition: factors perpetuating and hindering the continuance of female genital mutilation/cutting (FGM/C) summarized in a systematic review. *Health care for women international*, *34*(10), 837-859.

Berg, R. C., Underland, V., Odgaard-Jensen, J., Fretheim, A., & Vist, G. E. (2014). Effects of female genital cutting on physical health outcomes: a systematic review and meta-analysis. *BMJ open*, *4*(11),

Berkman, L. F., Kawachi, I., & Glymour, M. M. (Eds.). (2014). *Social epidemiology*. Oxford University Press.

Berger, R., & Weiss, T. (2006). Posttraumatic growth in Latina immigrants. *Journal of Immigrant & Refugee Studies*, *4*(3), 55-72.

Bhatta, M. P., Shakya, S., Assad, L., & Zullo, M. D. (2014). Chronic Disease Burden Among Bhutanese Refugee Women Aged 18–65 Years Resettled in Northeast Ohio, United States, 2008–2011. Journal of Immigrant and Minority Health, 1-8

Blas, E., & Kurup, A. S. (Eds.). (2010). *Equity, social determinants and public health programmes*. World Health Organization.

Birn, R. M., Roeber, B. J., & Pollak, S. D. (2017). Early childhood stress exposure, reward pathways, and adult decision making. *Proceedings of the National Academy of Sciences*, 201708791.

Bjornstrom, E. E., & Kuhl, D. C. (2014). A different look at the epidemiological paradox: Self-rated health, perceived social cohesion, and neighborhood immigrant context. *Social Science & Medicine*, *120*, 118-125.

Black, M.C., Basile, K.C., Breiding, M.J., Smith, S.G., Walters, M.L., Merrick, M.T., Chen, J., & Stevens, M.R. (2011). The National Intimate Partner and Sexual Violence Survey (NISVS): 2010 Summary Report. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention. Retrieved on December 10, 2012 from http://www.cdc.gov/ViolencePrevention/pdf/NISVS_Report2010-a.pdf

Blau, F. D., Kahn, L. M., Liu, A. Y. H., & Papps, K. L. (2013). The transmission of women's fertility, human capital, and work orientation across immigrant generations. *Journal of Population Economics*, *26*(2), 405-435.

Boerma, T., Hosseinpoor, A. R., Verdes, E., & Chatterji, S. (2016). A global assessment of the gender gap in self-reported health with survey data from 59 countries. *BMC public health*, *16*(1), 675.

Borrell, C., Palència, L., Muntaner, C., Urquía, M., Malmusi, D., & O'campo, P. (2013). Influence of macrosocial policies on women's health and gender inequalities in health. *Epidemiologic reviews*, *36*(1), 31-48.

Borooah, V. K. (2004). Gender bias among children in India in their diet and immunisation against disease. *Social science & medicine*, *58*(9), 1719-1731.

Bremner, J. D. (2006). Traumatic stress: effects on the brain. *Dialogues in clinical neuroscience*, *8*(4), 445.

Brown, D. W., Anda, R. F., Tiemeier, H., Felitti, V. J., Edwards, V. J., Croft, J. B., & Giles, W. H. (2009). Adverse childhood experiences and the risk of premature mortality. *American journal of preventive medicine*, *37*(5), 389-396.

Brown, T. T., Partanen, J., Chuong, L., Villaverde, V., Griffin, A. C., & Mendelson, A. (2018). Discrimination hurts: The effect of discrimination on the development of chronic pain. *Social Science & Medicine*, *204*, 1-8.

Casado, B. L., Hong, M., & Harrington, D. (2010). Measuring migratory grief and loss associated with the experience of immigration. *Research on Social Work Practice*, *20*(6), 611-620.

Chae, D. H., & Yoshikawa, H. (2008). Perceived group devaluation, depression, and HIV-risk behavior among Asian gay men. *Health Psychology*, *27*(2), 140.

Chapman, D. P., Whitfield, C. L., Felitti, V. J., Dube, S. R., Edwards, V. J., & Anda, R. F. (2004). Adverse childhood experiences and the risk of depressive disorders in adulthood. *Journal of affective disorders*, *82*(2), 217-225.

Chou, K. L. (2007). Psychological distress in migrants in Australia over 50 years old: a longitudinal investigation. Journal of affective disorders, 98(1), 99-108.

Claro, S., Paunesku, D., & Dweck, C. S. (2016). Growth mindset tempers the effects of poverty on academic achievement. *Proceedings of the National Academy of Sciences*, *113*(31), 8664-8668.

Colen, C. G., Ramey, D. M., Cooksey, E. C., & Williams, D. R. (2018). Racial disparities in health among nonpoor African Americans and Hispanics: the role of acute and chronic discrimination. Social Science & Medicine, 199, 167-180.

Commission on Social Determinants on ealth (2008). Closing the gap in a generation: health equity through action on the social determinants of health. Final Report of the Commission on Social Determinants of Health. Geneva, World Health Organization. Retrieved from http://apps.who.int/iris/bitstream/10665/43943/1/9789241563703_eng.pdf.

Cooper, H. (2002). Investigating socio-economic explanations for gender and ethnic inequalities in health. *Social science & medicine*, *54*(5), 693-706.

Danese, A., & McEwen, B. S. (2012). Adverse childhood experiences, allostasis, allostatic load, and age-related disease. *Physiology & behavior*, *106*(1), 29-39.

Davies, A. A., Borland, R. M., Blake, C., & West, H. E. (2011). The dynamics of health and return migration. *PLoS medicine*, *8*(6), e1001046.

Davis, K. A. (2004). Unlocking the Door by Giving Her the Key: A Comment on the Adequacy of the U-Visa as a Remedy. *Ala. L. Rev.*, *56*, 557.

DesMeules, M., Gold, J., McDermott, S., Cao, Z., Payne, J., Lafrance, B., ... & Mao, Y. (2005). Disparities in mortality patterns among Canadian immigrants and refugees, 1980–1998: results of a national cohort study. Journal of Immigrant and Minority Health, 7(4), 221-232.

Delara, M. (2016). Social determinants of immigrant women's mental health. *Advances in Public Health*, *2016*.

Dito, B. B. (2015). Women's Intrahousehold Decision-Making Power and Their Health Status: Evidence from Rural Ethiopia. *Feminist Economics*, *21*(3), 168-190.

Donato, K. M., Alexander, J. T., Gabaccia, D. R., & Leinonen, J. (2011). Variations in the gender composition of immigrant populations: How they matter. *International Migration Review*, *45*(3), 495-526.

Dube, S. R., Felitti, V. J., Dong, M., Chapman, D. P., Giles, W. H., & Anda, R. F. (2003a). Childhood abuse, neglect, and household dysfunction and the risk of illicit drug use: the adverse childhood experiences study. *Pediatrics*, *111*(3), 564-572.

Dube, S. R., Felitti, V. J., Dong, M., Giles, W. H., & Anda, R. F. (2003b). The impact of adverse childhood experiences on health problems: evidence from four birth cohorts dating back to 1900. *Preventive medicine*, *37*(3), 268-277.

Edwards, V. J., Holden, G. W., Felitti, V. J., & Anda, R. F. (2003). Relationship between multiple forms of childhood maltreatment and adult mental health in community respondents: results from the adverse childhood experiences study. *American Journal of Psychiatry*, *160*(8), 1453-1460.

Fabic, M. S., Choi, Y., & Bird, S. (2012). A systematic review of Demographic and Health Surveys: data availability and utilization for research. *Bulletin of the World Health Organization*, *90*, 604-612.

Farré, L. (2013). *The role of men in the economic and social development of women: Implications for gender equality*. The World Bank.

Farrer, L., Marinetti, C., Cavaco, Y. K., & Costongs, C. (2015). Advocacy for health equity: a synthesis review. *The Milbank Quarterly*, *93*(2), 392-437.

Fazel, M., Wheeler, J., & Danesh, J. (2005). Prevalence of serious mental disorder in 7000 refugees resettled in western countries: a systematic review. The Lancet, 365(9467), 1309-1314.

Fikree, F. F., & Pasha, O. (2004). Role of gender in health disparity: the South Asian context. *BMJ: British Medical Journal*, *328*(7443), 823.

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The Adverse Childhood Experiences (ACE) Study. *American journal of preventive medicine*, *14*(4), 245-258.

Fledderjohann, J., Agrawal, S., Vellakkal, S., Basu, S., Campbell, O., Doyle, P., ... & Stuckler, D. (2014). Do girls have a nutritional disadvantage compared with boys? Statistical models of breastfeeding and food consumption inequalities among Indian siblings. *PloS one*, *9*(9), e107172.

Flores, E., Tschann, J. M., Dimas, J. M., Bachen, E. A., Pasch, L. A., & de Groat, C. L. (2008). Perceived discrimination, perceived stress, and mental and physical health among Mexican-origin adults. *Hispanic Journal of Behavioral Sciences*, *30*(4), 401-424.

Fox, M., Thayer, Z., & Wadhwa, P. D. (2017). Assessment of acculturation in minority health research. *Social Science & Medicine*, *176*, 123-132.

Frank, K., & Hou, F. (2015). Source-Country Gender Roles and the Division of Labor Within Immigrant Families. *Journal of Marriage and Family*, *77*(2), 557-574.

Freedman, J. (2016). Sexual and gender-based violence against refugee women: a hidden aspect of the refugee" crisis". *Reproductive health matters*, *24*(47), 18-26.

Freeman, E. E., Roy-Gagnon, M. H., Samson, E., Haddad, S., Aubin, M. J., Vela, C., & Zunzunegui, M. V. (2013). The global burden of visual difficulty in low, middle, and high income countries. *PLoS One*, *8*(5), e63315.

Fryback, D. G., Dunham, N. C., Palta, M., Hanmer, J., Buechner, J., Cherepanov, D., ... & Feeny, D. (2007). US norms for six generic health-related quality-of-life indexes from the National Health Measurement study. *Medical care*, *45*(12), 1162.

Furnée, C. A., & Pfann, G. A. (2010). Individual vulnerability and the nurturing state: The case of self-reported health and relative income. Social science & medicine, 71(1), 125-133.

Gabriel, P. S., Morgan-Jonker, C., Phung, C. M., Hogg, R. S., Barrios, R., & Kaczorowski, J. (2011). Refugees and health care–the need for data: understanding the health of government-assisted refugees in Canada through a prospective longitudinal cohort. Can J Public Health, 102(4), 269-72.

Galobardes, B., Lynch, J. W., & Davey Smith, G. (2004). Childhood socioeconomic circumstances and cause-specific mortality in adulthood: systematic review and interpretation. *Epidemiologic reviews*, *26*(1), 7-21.

Garcia-Moreno, C., Jansen, H. A., Ellsberg, M., Heise, L., & Watts, C. H. (2006). Prevalence of intimate partner violence: findings from the WHO multi-country study on women's health and domestic violence. The lancet, 368(9543), 1260-1269.

García-Moreno, C., Zimmerman, C., Morris-Gehring, A., Heise, L., Amin, A., Abrahams, N., ... & Watts, C. (2015). Addressing violence against women: a call to action. *The Lancet*, *385*(9978), 1685-1695.

Gee, G. C. (2008). A multilevel analysis of the relationship between institutional and individual racial discrimination and health status. *American journal of public health*, *98*(Supplement_1), S48-S56.

Gee, G. C., Ryan, A., Laflamme, D. J., & Holt, J. (2006). Self-reported discrimination and mental health status among African descendants, Mexican Americans, and other Latinos in the New Hampshire REACH 2010 Initiative: the added dimension of immigration. *American Journal of Public Health*, *96*(10), 1821-1828.

Gee, G. C., Spencer, M. S., Chen, J., & Takeuchi, D. (2007). A nationwide study of discrimination and chronic health conditions among Asian Americans. *American Journal of Public Health*, *97*(7), 1275-1282.

Gee, G. C., Spencer, M., Chen, J., Yip, T., & Takeuchi, D. T. (2007). The association between self-reported racial discrimination and 12-month DSM-IV mental disorders among Asian Americans nationwide. *Social Science & Medicine*, *64*(10), 1984-1996.

Gonçalves, M., & Matos, M. (2016). Prevalence of violence against immigrant women: a systematic review of the literature. *Journal of family violence*, *31*(6), 697-710.

Green, D., Rasmussen, A., & Rosenfeld, B. (2010). Defining torture: A review of 40 years of health science research. Journal of traumatic stress, 23(4), 528-531.

Gubernskaya, Z. (2014). Age at migration and self-rated health trajectories after age 50: Understanding the older immigrant health paradox. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *70*(2), 279-290.

Gurrieri, J. (2005). Expert Group meeting on international migration and development in Latin America and the Carribean.

Hancioglu, A., & Arnold, F. (2013). Measuring coverage in MNCH: tracking progress in health for women and children using DHS and MICS household surveys. *PLoS medicine*, *10*(5), e1001391.

Harrell, C. J. P., Burford, T. I., Cage, B. N., Nelson, T. M., Shearon, S., Thompson, A., & Green, S. (2011). Multiple pathways linking racism to health outcomes. *Du Bois review: social science research on race*, *8*(1), 143-157.

Hatzenbuehler, M., Prins, S., Flake, M., Philbin, M., Frazer, S., Hagen, D., Hirsch, J., (2017). Immigration policies and mental health morbidity among Latinos: a state level analysis. Soc. Sci. Med. 174, 169-178.

Hazen, A. L., & Soriano, F. I. (2007). Experiences with intimate partner violence among Latina women. *Violence Against Women*, *13*(6), 562-582.Hondagneu-Sotelo, P., & Cranford, C. (2006). Gender and migration. In *Handbook of the Sociology of Gender* (pp. 105-126). Springer, Boston, MA.

Hermansson, A. C., Timpka, T., & Thyberg, M. (2002). The mental health of war-wounded refugees: an 8-year follow-up. The Journal of nervous and mental disease, 190(6), 374-380.

Hermansson, A. C., Timpka, T., & Thyberg, M. (2002). The mental health of war-wounded refugees: an 8-year follow-up. The Journal of nervous and mental disease, 190(6), 374-380.

Hersch, J. (2011). The persistence of skin color discrimination for immigrants. *Social Science Research*, *40*(5), 1337-1349.

Hillis, S. D., Anda, R. F., Dube, S. R., Felitti, V. J., Marchbanks, P. A., & Marks, J. S. (2004). The association between adverse childhood experiences and adolescent

pregnancy, long-term psychosocial consequences, and fetal death. *Pediatrics*, *113*(2), 320-327.

Hindin, Michelle J., Sunita Kishor, and Donna L. Ansara. 2008. Intimate Partner Violence among Couples in 10 DHS Countries: Predictors and Health Outcomes. DHS Analytical Studies No. 18. Calverton, Maryland, USA: Macro International Inc.

Hiott, A., Grzywacz, J. G., Arcury, T. A., & Quandt, S. A. (2006). Gender differences in anxiety and depression among immigrant Latinos. *Families, Systems, & Health*, *24*(2), 137.

Hollander, A. C. (2013). Social inequalities in mental health and mortality among refugees and other immigrants to Sweden–epidemiological studies of register data. Global health action, 6.

Holtan, N., Antolak, K., Johnson, D. R., Ide, L., Jaranson, J., & Ta, K. (2002). Unrecognized torture affects the health of refugees. Minnesota medicine, 85(5), 35-39.

Hondagneu-Sotelo, P., & Cranford, C. (2006). Gender and migration. In *Handbook of the Sociology of Gender* (pp. 105-126). Springer, Boston, MA.

Hosseinpoor, A. R., Bergen, N., Kostanjsek, N., Kowal, P., Officer, A., & Chatterji, S. (2016). Socio-demographic patterns of disability among older adult populations of low-income and middle-income countries: results from World Health Survey. *International journal of public health*, *61*(3), 337-345.

Hosseinpoor, A. R., Bergen, N., Mendis, S., Harper, S., Verdes, E., Kunst, A., & Chatterji, S. (2012a). Socioeconomic inequality in the prevalence of noncommunicable diseases in low-and middle-income countries: results from the World Health Survey. *BMC public health*, *12*(1), 474.

Hosseinpoor, A. R., Williams, J. A. S., Itani, L., & Chatterji, S. (2012b). Socioeconomic inequality in domains of health: results from the World Health Surveys. *BMC Public Health*, *12*(1), 198.

Hosseinpoor, A. R., Williams, J. S., Amin, A., De Carvalho, I. A., Beard, J., Boerma, T., ... & Chatterji, S. (2012). Social determinants of self-reported health in women and men: understanding the role of gender in population health. *PloS one*, *7*(4), e34799.

Hughes, K. C., & Shin, L. M. (2011). Functional neuroimaging studies of post-traumatic stress disorder. *Expert review of neurotherapeutics*, *11*(2), 275-285.

Hull, A. (2002). Neuroimaging findings in post-traumatic stress disorder: Systematic review. *British Journal of Psychiatry, 181*(2), 102-110

Human Rights Watch (2014). World Report 2014. Events of 2013. Retrieved from https://www.hrw.org/world-report/2014.

Im, E. O., & Yang, K. (2006). Theories on immigrant women's health. *Health care for women international*, *27*(8), 666-681.

International Organization for Migration (2013). World Migration Report 2013. Migrant Well-Being and Development. Retrieved from https://publications.iom.int/books/world-migration-report-2013.

Iversen, V. (2003). Intra-household inequality: a challenge for the capability approach?. *Feminist Economics*, *9*(2-3), 93-115.

Jamil, H., Hakim-Larson, J., Farrag, M., Kafaji, T., Jamil, L. H., & Hammad, A. (2005). Medical complaints among Iraqi American refugees with mental disorders. Journal of immigrant health, 7(3), 145-152.

Jamil, H., Nassar-McMillan, S., Lambert, R., Wang, Y., Ager, J., & Arnetz, B. (2010). Pre- and post-displacement stressors and time of migration as related to self-rated health among Iraqi immigrants and refugees in Southeast Michigan. Medicine, Conflict and Survival, 26(3), 207-222.

Junhong, C. (2001). Prenatal Sex Determination and Sex-Selective Abortion in Rural Central China. *Population and Development Review, 27*(2), 259-281.

Janevic, T., Borrell, L. N., Savitz, D. A., Echeverria, S. E., & Rundle, A. (2014). Ethnic enclaves and gestational diabetes among immigrant women in New York City. *Social Science & Medicine*, *120*, 180-189.

Jatrana, S., & Pasupuleti, S. S. R. (2015). Women's autonomy, education and birth intervals in India: Visiting the less familiar. *Asian Population Studies*, *11*(2), 172-190.

Jayachandran, S. (2015). The roots of gender inequality in developing countries. *economics*, *7*(1), 63-88.

John, R., Resendiz, R., & De Vargas, L. W. (1997). Beyond familism? Familism as explicit motive for eldercare among Mexican American caregivers. *Journal of Cross-Cultural Gerontology*, *12*(2), 145-162.

Jun, H. J., Subramanian, S. V., Gortmaker, S., & Kawachi, I. (2004). A multilevel analysis of women's status and self-rated health in the United States. *Journal of the American Medical Women's Association (1972)*, *59*(3), 172-180.

Kanaiaupuni, S. M. (2000). Reframing the migration question: An analysis of men, women, and gender in Mexico. *Social forces*, *78*(4), 1311-1347.

Kandel, W., & Massey, D. S. (2002). The Culture of Mexican Migration: A Theoretical and Empirical Analysis. *Social Forces*, *80*(3), 981-1004.

Kane, J. B., Teitler, J. O., & Reichman, N. E. (2018). Ethnic enclaves and birth outcomes of immigrants from India in a diverse US state. *Social Science & Medicine*, *209*, 67-75.

Katsnelson, A. (2015). News Feature: The neuroscience of poverty. *Proceedings of the National Academy of Sciences*, *112*(51), 15530-15532.

Kennedy, S., Kidd, M. P., McDonald, J. T., & Biddle, N. (2015). The healthy immigrant effect: patterns and evidence from four countries. *Journal of International Migration and Integration*, *16*(2), 317-332.

Kessler, R. C., Mickelson, K. D., & Williams, D. R. (1999). The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. *Journal of health and social behavior*, 208-230. Khoo, S. E. (2010). Health and humanitarian migrants' economic participation. *Journal of immigrant and minority health*, *12*(3), 327-339.

Kim, I. H., Carrasco, C., Muntaner, C., McKenzie, K., & Noh, S. (2013). Ethnicity and post migration health trajectory in new immigrants to Canada. *American Journal of Public Health*, *103*(4), e96-e104.

Kirmayer, L. J., Narasiah, L., Munoz, M., Rashid, M., Ryder, A. G., Guzder, J., ... & Canadian Collaboration for Immigrant and Refugee Health (CCIRH. (2011). Common mental health problems in immigrants and refugees: general approach in primary care. *Canadian Medical Association Journal*, cmaj-090292.

Kishor, S. (2005). A focus on gender: collected papers on gender using DHS data.

Kitayama, N., Quinn, S., & Bremner, J. D. (2006). Smaller volume of anterior cingulate cortex in abuse-related posttraumatic stress disorder. *Journal of affective disorders*, *90*(2), 171-174.

Koch-Weser, S., Liang, S. L., & Grigg-Saito, D. C. (2006). Self-reported health among Cambodians in Lowell, Massachusetts. Journal of health care for the poor and underserved, 17(2), 133-145.

Koslowski, R. (2014). Selective migration policy models and changing realities of implementation. *International Migration*, *52*(3), 26-39.

Krieger, N. (1990). Racial and gender discrimination: risk factors for high blood pressure?. *Social science & medicine*, *30*(12), 1273-1281.

Krieger, N. (2001a). A glossary for social epidemiology. *Journal of Epidemiology & Community Health*, *55*(10), 693-700.

Krieger, N. (2001b). Theories for social epidemiology in the 21st century: an ecosocial perspective. *International journal of epidemiology*, *30*(4), 668-677.

Krieger, N. (2003). Genders, sexes, and health: what are the connections—and why does it matter?. *International journal of epidemiology*, *32*(4), 652-657.

Krieger, N., & Davey Smith, G. (2004). "Bodies count," and body counts: social epidemiology and embodying inequality. *Epidemiologic reviews*, *26*(1), 92-103.

Krieger, N. (2005). Embodiment: a conceptual glossary for epidemiology. *Journal of Epidemiology & Community Health*, *59*(5), 350-355.

Krieger, N., Chen, J. T., Waterman, P. D., Hartman, C., Stoddard, A. M., Quinn, M. M., ... & Barbeau, E. M. (2008). The inverse hazard law: blood pressure, sexual harassment, racial discrimination, workplace abuse and occupational exposures in US low-income black, white and Latino workers. *Social science & medicine*, *67*(12), 1970-1981.

Krieger, N. (2008). Proximal, distal, and the politics of causation: what's level got to do with it?. *American journal of public health*, *98*(2), 221-230.

Krieger, N. (2011). *Epidemiology and the people's health: theory and context*. Oxford University Press.

Krieger, N. (2012). Methods for the Scientific Study of Discrimination and Health: An Ecosocial Approach. *American Journal Of Public Health*, *102*(5), 936-945.

Krieger, N. (2014). Discrimination and health inequities. *International Journal of Health Services*, *44*(4), 643-710.

Lau, A. S., Tsai, W., Shih, J., Liu, L. L., Hwang, W. C., & Takeuchi, D. T. (2013). The immigrant paradox among Asian American women: are disparities in the burden of depression and anxiety paradoxical or explicable?. *Journal of consulting and clinical psychology*, *81*(5), 901-911

Le Strat, Y., Dubertret, C., & Le Foll, B. (2011). Child marriage in the United States and its association with mental health in women. *Pediatrics*, peds-2011.

Lee, Y. S., & Hadeed, L. (2009). Intimate partner violence among Asian immigrant communities: Health/mental health consequences, help-seeking behaviors, and service utilization. *Trauma, Violence, & Abuse*, *10*(2), 143-170.

Leopold, T. A., Ratcheva, V., & Zahidi, S. (2016). The global gender gap report 2016. In *World Economic Forum*.

Lewis, T. T., Cogburn, C. D., & Williams, D. R. (2015). Self-reported experiences of discrimination and health: scientific advances, ongoing controversies, and emerging issues. *Annual review of clinical psychology*, *11*, 407-440.

Li, L., & Dong, X. (2017). Self-reported Discrimination and Depressive Symptoms Among Older Chinese Adults in Chicago. *Journals of Gerontology Series A: Biomedical Sciences and Medical Sciences, 72*(Suppl1), S119-S124.

Lie, B. (2002). A 3-year follow-up study of psychosocial functioning and general symptoms in settled refugees. Acta Psychiatrica Scandinavica, 106(6), 415-425.

Lim, I. S. (1997). Korean immigrant women's challenge to gender inequality at home: The interplay of economic resources, gender, and family. *Gender & society*, *11*(1), 31-51.

Llacer, A., Zunzunegui, M. V., Del Amo, J., Mazarrasa, L., & Bolůmar, F. (2007). The contribution of a gender perspective to the understanding of migrants' health. *Journal of Epidemiology & Community Health*, *61*(Suppl 2), ii4-ii10.

Logan, T. K., Walker, R., Jordan, C. E., & Leukefeld, C. G. (2006). *Women and victimization: Contributing factors, interventions, and implications*. American Psychological Association.

Lopez-Class, M., Castro, F. G., & Ramirez, A. G. (2011). Conceptions of acculturation: A review and statement of critical issues. *Social science & medicine*, *72*(9), 1555-1562.

Luchenski, S., Quesnel-Vallee, A., & Lynch, J. (2008). Differences between women's and men's socioeconomic inequalities in health: longitudinal analysis of the Canadian population, 1994–2003. *Journal of Epidemiology & Community Health*, *62*(12), 1036-1044.

Lu, Y., Kaushal, N., Denier, N., & Wang, J. S. H. (2017). Health of newly arrived immigrants in Canada and the United States: Differential selection on health. *Health & place*, *48*, 1-10.

Lyon, E., Bradshaw, J., Menard, A. (2011). Meeting Survivor's' Needs Through Non-Residential Domestic Violence Services & Supports: Results of a Multi-State Study,(NCJ Publication # 237328) U.S.Department of Justice. Washington, DC: U.S. Government Printing Office. Retrieved from https://www.ncjrs.gov/pdffiles1/nij/grants/237328.pdf

Mabsout, R. (2011). Capability and health functioning in Ethiopian households. *Social indicators research*, *101*(3), 359-389.

Marmot, M. (2004). Status syndrome. *Significance*, *1*(4), 150-154.

Marmot, M., & Bell, R. (2012). Fair society, healthy lives. *Public health*, *126*, S4-S10.

Marmot, M., & Commission on Social Determinants of Health. (2007). Achieving health equity: from root causes to fair outcomes. *The Lancet*, *370*(9593), 1153-1163.

Marmot, M., & Wilkinson, R. (Eds.). (2005). *Social determinants of health*. OUP Oxford.

Martinez, J. N., Aguayo-Tellez, E., & Rangel-Gonzalez, E. (2015). Explaining the Mexican-American health paradox using selectivity effects. *International Migration Review*, *49*(4), 878-906.

Matanov, A., Giacco, D., Bogic, M., Ajdukovic, D., Franciskovic, T., Galeazzi, G. M., ... & Priebe, S. (2013). Subjective quality of life in war-affected populations. BMC public health, 13(1), 624.

Maximova, K., & Krahn, H. (2010). Health status of refugees settled in Alberta: changes since arrival. Canadian Journal of Public Health/Revue Canadienne de Sante'e Publique, 322-326.
Meadows, L. M., Thurston, W. E., & Melton, C. (2001). Immigrant women's health. *Social science & medicine*, *52*(9), 1451-1458.
Melhado, L. (2011). Sex-Selective Abortions During Past Three Decades May Explain Absence of Millions of Girls in India. *International Perspectives on Sexual and Reproductive Health,37*(3), 162-163.
Mendez-Luck, C. A., & Anthony, K. P. (2015). Marianismo and caregiving role beliefs among US-born and immigrant Mexican women. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *71*(5), 926-935.
Menjívar, C., & Salcido, O. (2002). Immigrant women and domestic violence: Common experiences in different countries. *Gender & society*, *16*(6), 898-920.
Mersky, J. P., Janczewski, C. E., & Nitkowski, J. C. (2018). Poor mental health among low-income women in the US: The roles of adverse childhood and adult experiences. *Social Science & Medicine*, *206*, 14-21.
Min, P. G. (2001, June). Changes in Korean immigrants' gender role and social status, and their marital conflicts. In *Sociological Forum* (Vol. 16, No. 2, pp. 301-320). Kluwer Academic Publishers-Plenum Publishers.
Miyawaki, C. E. (2015). A review of ethnicity, culture, and acculturation among Asian caregivers of older adults (2000-2012). *SAGE open*, *5*(1), 2158244014566365.
Mollica, R. F., McInnes, K., Sarajlić, N., Lavelle, J., Sarajlić, I., & Massagli, M. P. (1999). Disability associated with psychiatric comorbidity and health status in Bosnian refugees living in Croatia. Jama, 282(5), 433-439.
Mollica, R. F., Sarajlić, N., Chernoff, M., Lavelle, J., Vuković, I. S., & Massagli, M. P. (2001). Longitudinal study of psychiatric symptoms, disability, mortality, and emigration among Bosnian refugees. Jama, 286(5), 546-554.
Morey, B. N. (2018). Mechanisms by Which Anti-Immigrant Stigma Exacerbates Racial/Ethnic Health Disparities. *American Journal Of Public Health*, *108*(4), 460-463.
Mossakowski, K. (2003). Coping with Perceived Discrimination: Does Ethnic Identity Protect Mental Health? *Journal of Health and Social Behavior, 44*(3), 318-331.
Moss, N. E. (2002). Gender equity and socioeconomic inequality: a framework for the patterning of women's health. *Social science & medicine*, *54*(5), 649-661.
National Scientific Council on the Developing Child. (2005/2014). Excessive Stress Disrupts the Architecture of the Developing Brain: Working Paper 3. Updated Edition. Retrieved from http://www.developingchild.harvard.edu.
Nasrullah, M., Haqqi, S., & Cummings, K. J. (2009). The epidemiological patterns of honour killing of women in Pakistan. *European Journal of Public Health*, *19*(2), 193-197.
Nemeroff, C. B. (2004). "Neurobiological consequences of childhood trauma." The Journal of clinical psychiatry.
Newbold, B. (2009). The short-term health of Canada's new immigrant arrivals: evidence from LSIC. Ethnicity & health, 14(3), 315-336.
Newman, A. B., & Brach, J. S. (2001). Gender gap in longevity and disability in older persons. *Epidemiologic reviews*, *23*(2), 343-355.

Noble, K. G., Houston, S. M., Brito, N. H., Bartsch, H., Kan, E., Kuperman, J. M., ... & Schork, N. J. (2015). Family income, parental education and brain structure in children and adolescents. *Nature neuroscience*, *18*(5), 773.

Norredam, M., Olsbjerg, M., Petersen, J. H., Bygbjerg, I., & Krasnik, A. (2012). Mortality from infectious diseases among refugees and immigrants compared to native Danes: a historical prospective cohort study. Tropical Medicine & International Health, 17(2), 223-230.

Norredam, M., Agyemang, C., Hansen, H., Oluf, K., Petersen, J. H., Byberg, S., ... & Kunst, A. E. (2014). Duration of residence and disease occurrence among refugees and family reunited immigrants: test of the 'healthy migrant effect'hypothesis. Tropical Medicine & International Health.

Nurius, P. S., Logan-Greene, P., & Green, S. (2012). ACEs within a social disadvantage framework: Distinguishing unique, cumulative, and moderated contributions to adult mental health. *Journal of prevention & intervention in the community*, *40*(4), 278.

Olsen, D. R., Montgomery, E., Bøjholm, S., & Foldspang, A. (2007). Prevalence of pain in the head, back and feet in refugees previously exposed to torture: a ten-year follow-up study. Disability & Rehabilitation, 29(2), 163-171.

Ornelas, I. J., & Perreira, K. M. (2011). The role of migration in the development of depressive symptoms among Latino immigrant parents in the USA. *Social science & medicine*, *73*(8), 1169-1177.

Osypuk, T. L., Bates, L. M., & Acevedo-Garcia, D. (2010). Another Mexican birthweight paradox? The role of residential enclaves and neighborhood poverty in the birthweight of Mexican-origin infants. *Social science & medicine*, *70*(4), 550-560.

Palència, L., Malmusi, D., De Moortel, D., Artazcoz, L., Backhans, M., Vanroelen, C., & Borrell, C. (2014). The influence of gender equality policies on gender inequalities in health in Europe. *Social Science & Medicine*, *117*, 25-33.

Palloni, A., & Arias, E. (2004). Paradox lost: explaining the Hispanic adult mortality advantage. *Demography*, *41*(3), 385-415.

Paradies, Y., Ben, J., Denson, N., Elias, A., Priest, N., Pieterse, A., ... & Gee, G. (2015). Racism as a determinant of health: a systematic review and meta-analysis. *PloS one*, *10*(9), e0138511.

Parrado, E. A., Flippen, C. A., & McQuiston, C. (2005). Migration and relationship power among Mexican women. *Demography*, *42*(2), 347-372.

Pascoe, E. A., & Smart Richman, L. (2009). Perceived discrimination and health: a meta-analytic review. *Psychological bulletin*, *135*(4), 531.

Pedraza, S. (1991). WOMEN AND MIGRATION: The Social Consequences of Gender. *Annual Review Of Sociology*, *17*303-325.

Pittaway, E., & Bartolomei, L. (2001). Refugees, race, and gender: The multiple discrimination against refugee women. *Refuge: Canada's Journal on Refugees*, *19*(6).

Philbin, M. M., Flake, M., Hatzenbuehler, M. L., & Hirsch, J. S. (2018). State-level immigration and immigrant-focused policies as drivers of Latino health disparities in the United States. *Social Science & Medicine*, *199*29-38.

Piwowarczyk, L., Moreno, A., & Grodin, M. (2000). Health care of torture survivors. JAMA, 284(5), 539-541.

Plante, T. G., Simicic, A., Andersen, E. N., & Manuel, G. (2002). Stress and coping among displaced Bosnian refugees: An exploratory study. International Journal of Stress Management, 9(1), 31-41.

Prus, S. G. (2011). Comparing social determinants of self-rated health across the United States and Canada. *Social science & medicine*, *73*(1), 50-59.

Prusty, R. K., & Kumar, A. (2014). Socioeconomic dynamics of gender disparity in childhood immunization in India, 1992–2006. *PLoS One*, *9*(8), e104598.

Pyke, K. D., & Johnson, D. L. (2003). Asian American Women And Racialized Femininities: "Doing" Gender across Cultural Worlds. *Gender & Society*, *17*(1), 33-53.

Raj, A., & Boehmer, U. (2013). Girl child marriage and its association with national rates of HIV, maternal health, and infant mortality across 97 countries. *Violence Against Women*, *19*(4), 536-551.

Raj, A., Saggurti, N., Balaiah, D., & Silverman, J. G. (2009). Prevalence of child marriage and its effect on fertility and fertility-control outcomes of young women in India: a cross-sectional, observational study. *The Lancet*, *373*(9678), 1883-1889.

Raj, A., & Silverman, J. (2002). Violence Against Immigrant Women: The Roles of Culture, Context, and Legal Immigrant Status on Intimate Partner Violence.*Violence against women*, *8*(3), 367-398.

Read, J. N. G., & Reynolds, M. M. (2012). Gender differences in immigrant health: The case of Mexican and Middle Eastern immigrants. *Journal of health and social behavior*, *53*(1), 99-123.

Reisel, D., & Creighton, S. M. (2015). Long term health consequences of Female Genital Mutilation (FGM). *Maturitas*, *80*(1), 48-51.

Reynolds, M. M., Chernenko, A., & Read, J. N. G. (2016). Region of origin diversity in immigrant health: Moving beyond the Mexican case. *Social Science & Medicine*, *166*, 102-109.

Richards, E., Theobald, S., George, A., Kim, J. C., Rudert, C., Jehan, K., & Tolhurst, R. (2013). Going beyond the surface: gendered intra-household bargaining as a social determinant of child health and nutrition in low and middle-income countries. *Social science & medicine*, *95*, 24-33.

Robeyns, I. (2003). Sen's capability approach and gender inequality: selecting relevant capabilities. *Feminist economics*, *9*(2-3), 61-92.

Robjant, K., Hassan, R., & Katona, C. (2009). Mental health implications of detaining asylum seekers: systematic review. The British journal of psychiatry,194(4), 306-312.

Röder, A., & Mühlau, P. (2014). Are they acculturating? Europe's immigrants and gender egalitarianism. *Social Forces*, *92*(3), 899-928.

Rubalcava, L. N., Teruel, G. M., Thomas, D., & Goldman, N. (2008). The healthy migrant effect: new findings from the Mexican Family Life Survey. *American journal of public health*, *98*(1), 78-84.

Rueda, S., Artazcoz, L., & Navarro, V. (2008). Health inequalities among the elderly in western Europe. *Journal of Epidemiology & Community Health*, *62*(6), 492-498.

Ryan, A. M., Gee, G. C., & Laflamme, D. F. (2006). The association between self-reported discrimination, physical health and blood pressure: findings from African

Americans, Black immigrants, and Latino immigrants in New Hampshire. *Journal of health care for the poor and underserved*, *17*(2), 116-132.

Ryff C, Almeida D, Binkley N, Carr D, Coe C, Davidson R. et al. National Survey of Midlife Development in the United States (MIDUS Refresher), 2011–2014. Ann Arbor, MI: Interuniversity Consortium for Political and Social Research; 2016. ICPSR36532-v2

Salant, T., & Lauderdale, D. S. (2003). Measuring culture: a critical review of acculturation and health in Asian immigrant populations. *Social science & medicine*, *57*(1), 71-90.

Salinas, J. J., & Peek, M. K. (2008). Work experience and gender differences in chronic disease risk in older Mexicans. *Annals of epidemiology*, *18*(8), 628-630.

Salvi, V. (2009). Child marriage in India: a tradition with alarming implications. *The Lancet*, *373*(9678), 1826-1827.

Sano, Y., Antabe, R., Atuoye, K. N., Braimah, J. A., Galaa, S. Z., & Luginaah, I. (2018a). Married women's autonomy and post-delivery modern contraceptive use in the Democratic Republic of Congo. *BMC women's health*, *18*(1), 49.

Sano, Y., Sedziafa, A. P., Vercillo, S., Antabe, R., & Luginaah, I. (2018b). Women's household decision-making autonomy and safer sex negotiation in Nigeria: An analysis of the Nigeria Demographic and Health Survey. *AIDS care*, *30*(2), 240-245.

Sen, A. (1987). *Gender and cooperative conflicts* (No. 1342). Helsinki: Wider.

Sen, A. (1990). More than 100 million women are missing. *New York*, 61-66.

Sen, A. (1992). Missing women. BMJ: British Medical Journal, 304(6827), 587.

Sen, A. (2001a). *Development as freedom*. Oxford Paperbacks.

Sen, A. (2001b). The many faces of gender inequality. *New republic*, 35-39.

Sen, A. (2003). Missing Women-Revisited: Reduction In Female Mortality Has Been Counterbalanced By Sex Selective Abortions. *BMJ: British Medical Journal, 327*(7427), 1297-1298

Sen, G., & Östlin, P. (2008). Gender inequity in health: why it exists and how we can change it. Shin, L. M., Shin, P. S., Heckers, S., Krangel, T. S., Macklin, M. L., Orr, S. P., ... & Levering, J. (2004). Hippocampal function in posttraumatic stress disorder. *Hippocampus*, *14*(3), 292-300.*Global Public Health*, *3*1-12.

Shor, E., Roelfs, D., & Vang, Z. M. (2017). The "Hispanic mortality paradox" revisited: Meta-analysis and meta-regression of life-course differentials in Latin American and Caribbean immigrants' mortality. *Social Science & Medicine*, *186*, 20-33.

Singh, G. K., & Hiatt, R. A. (2006). Trends and disparities in socioeconomic and behavioural characteristics, life expectancy, and cause-specific mortality of native-born and foreign-born populations in the United States, 1979–2003. *International journal of epidemiology*, *35*(4), 903-919.

Siddiqi, A., Shahidi, F. V., Ramraj, C., & Williams, D. R. (2017). Associations between race, discrimination and risk for chronic disease in a population-based sample from Canada. *Social Science & Medicine*, *194*, 135-141.

Singh, A. (2012). Gender based within-household inequality in childhood immunization in India: changes over time and across regions. *PloS one*, *7*(4), e35045.

Søndergaard, H. P., Ekblad, S., & Theorell, T. (2001). Self-reported life event patterns and their relation to health among recently resettled Iraqi and Kurdish refugees in Sweden. The Journal of nervous and mental disease, 189(12), 838-845.

Spitzer, D. L. (2005). Engendering health disparities. *Canadian Journal of Public Health/Revue Canadienne de Sante'e Publique*, s78-s96.

Sulaiman-Hill, C. M., & Thompson, S. C. (2012). Afghan and Kurdish refugees, 8–20 years after resettlement, still experience psychological distress and challenges to well being. Australian and New Zealand journal of public health,36(2), 126-134.

Tamblyn, J. M., Calderon, A. J., Combs, S., & O'Brien, M. M. (2011). Patients from abroad becoming patients in everyday practice: torture survivors in primary care. Journal of Immigrant and Minority Health, 13(4), 798-801.

Tolhurst, R., Amekudzi, Y. P., Nyonator, F. K., Squire, S. B., & Theobald, S. (2008). "He will ask why the child gets sick so often": The gendered dynamics of intra-household bargaining over healthcare for children with fever in the Volta Region of Ghana. *Social Science & Medicine*, *66*(5), 1106-1117.

Turra, C. M., & Elo, I. T. (2008). The impact of salmon bias on the Hispanic mortality advantage: New evidence from social security data. *Population research and policy review*, *27*(5), 515.

Ullmann, S. H., Goldman, N., & Massey, D. S. (2011). Healthier before they migrate, less healthy when they return? The health of returned migrants in Mexico. *Social science & medicine*, *73*(3), 421-428.

UNESCO (2013) Education for all. Global Monitoring Report. Fact Sheet. Retrieved from https://en.unesco.org/gem-report/report/2014/teaching-and-learning-achieving-quality-all.

UNESCO (2015). Gender and EFA 2000-2015. Achievements and challenges. Retrieved from http://unesdoc.unesco.org/images/0023/002348/234809E.pdf

UNESCO (2016). Global Education Monitoring Report 2016. Gender review. Creating sustainable futures for all. Retrieved from http://unesdoc.unesco.org/images/0024/002460/246045e.pdf

UNICEF. (2010). *Progress for children: achieving the MDGs with equity* (No. 9). Retrieved from https://www.unicef.org/publications/files/Progress_for_Children-No.9_EN_081710.pdf

Unicef (2014). Ending child marriage: Progress and prospects. Retrieved from https://data.unicef.org/resources/ending-child-marriage-progress-and-prospects/

UNICEF (2016). Female genital mutilation/cutting: a global concern. Retrieved from https://www.unicef.org/media/files/FGMC_2016_brochure_final_UNICEF_SPREAD.pdf.

United Nations Children's Fund, & Gupta, G. R. (2013). Female genital mutilation/cutting: a statistical overview and exploration of the dynamics of change. *Reproductive Health Matters*, 184-190.

United Nations (2017). International Migration Report. Retrieved from https://www.un.org/en/development/desa/population/migration/publications/migrationreport/docs/MigrationReport2017_Highlights.pdf.

United Nations Children's Fund (UNICEF, 2009). The state of the world's children: Maternal and newborn health. Retrieved from http://www.unicef.org/sowc09/

United Nations Population Fund (UNFPA), Marrying Too Young: End Child Marriages, 2012. Retrieved from https://www.unfpa.org/end-child-marriage.
Urquia, M. L., O'Campo, P. J., & Heaman, M. I. (2012). Revisiting the immigrant paradox in reproductive health: the roles of duration of residence and ethnicity. *Social science & medicine*, *74*(10), 1610-1621.
USAID (2005) A Focus on Gender: Collected Papers on Gender Using DHS Data. Retrieved from https://dhsprogram.com/publications/publication-od32-other-documents.cfm
USAID (2018). Health and Demographic Surveys. https://dhsprogram.com/What-We-Do/Survey-Types/DHS.cfm
U.S Census (2010). The Foreign-Born Population of the United States. Retrieved from https://www.census.gov/newsroom/pdf/cspan_fb_slides.pdf
Van der Kolk, B. (2014). *The body keeps the score*. New York: Viking.
Van Dyke, M. E., Vaccarino, V., Quyyumi, A. A., & Lewis, T. T. (2016). Socioeconomic status discrimination is associated with poor sleep in African-Americans, but not Whites. *Social Science & Medicine*, *153*, 141-147.
Venkatapuram, S., & Marmot, M. (2009). Epidemiology and social justice in light of social determinants of health research. *Bioethics*, *23*(2), 79-89.
Viruell-Fuentes, E. A. (2007). Beyond acculturation: immigration, discrimination, and health research among Mexicans in the United States. *Social science & medicine*, *65*(7), 1524-1535.
Vlassoff, C. (2007). Gender differences in determinants and consequences of health and illness. *Journal of health, population, and nutrition*, *25*(1), 47.
Vu, A., Adam, A., Wirtz, A., Pham, K., Rubenstein, L., Glass, N., ... & Singh, S. (2014). The prevalence of sexual violence among female refugees in complex humanitarian emergencies: a systematic review and meta-analysis. *PLoS currents*, *6*.
Watts, C., & Zimmerman, C. (2002). Violence against women: global scope and magnitude. *The lancet*, *359*(9313), 1232-1237.
Weden, M. M., Miles, J. V., Friedman, E., Escarce, J. J., Peterson, C., Langa, K. M., & Shih, R. A. (2017). The Hispanic Paradox: Race/Ethnicity and Nativity, Immigrant Enclave Residence and Cognitive Impairment Among Older US Adults. *Journal Of The American Geriatrics Society*, *65*(5), 1085-1091.
Williams, D. R., & Mohammed, S. A. (2009). Discrimination and racial disparities in health: evidence and needed research. *Journal of behavioral medicine*, *32*(1), 20-47.
Williams, D. R., & Mohammed, S. A. (2013). Racism and health I: Pathways and scientific evidence. *American Behavioral Scientist*, *57*(8), 1152-1173.
Williams, A. C. D. C., Peña, C. R., & Rice, A. S. (2010). Persistent pain in survivors of torture: a cohort study. Journal of pain and symptom management,40(5), 715-722.
Women, U.N. (2015). Progress of the World' s Women 2015-2016: Transforming Economies, Realizing Rights (No. id: 7688). Retrieved from http://progress.unwomen.org/en/2015/pdf/UNW_progressreport.pdf
World Bank (2012). World Development Report 2012: Gender Equality and Development. Retrieved from https://openknowledge.worldbank.org/handle/10986/4391.

World Bank (2014). Voice and Agency: Empowering Women and Girls for Shared Prosperity. Retrieved from https://openknowledge.worldbank.org/handle/10986/19036.

World Health Organization. (2004). The global burden of disease: 2004 update. Retrieved from https://www.who.int/healthinfo/global_burden_disease/GBD_report_2004update_full.pdf?ua=1

World Health Organization. (2005). WHO multi-country study on women's health and domestic violence against women: summary report of initial results on prevalence, health outcomes and women's responses. Retrieved from http://www.who.int/reproductivehealth/publications/violence/24159358X/en/

World Health Organization. (2009). Women and health: today's evidence tomorrow's agenda. Retrieved from http://www.who.int/gender-equity-rights/knowledge/9789241563857/en/.

World Health Organization. (2011). Global status report on noncommunicable diseases 2010. Retrieved from https://www.who.int/nmh/publications/ncd_report2010/en/.

World Health Organization (WHO) & Pan American Health Organization. (2012). Understanding and addressing violence against women: Intimate partner violence (Paper No. WHO/RHR/12.36), Retrieved from https://apps.who.int/iris/handle/10665/77432.

World Health Organization. (2015). Health in 2015: from MDGs to SDGs. Retrieved from https://www.who.int/gho/publications/mdgs-sdgs/en/.

World Health Organization. (2016). World Health Statistics: monitoring health for the SDGs, sustainable development goals. Retrieved from http://www.who.int/gho/publications/world_health_statistics/2016/en/

Wyatt, S. B., Williams, D. R., Calvin, R., Henderson, F. C., Walker, E. R., & Winters, K. (2003). Racism and cardiovascular disease in African Americans. *The American Journal Of The Medical Sciences*, *325*(6), 315-331.

Young, M. E. D. T., & Pebley, A. R. (2017). Legal Status, Time in the USA, and the Well-Being of Latinos in Los Angeles. *Journal of Urban Health*, *94*(6), 764-775.

Zhu, W. X., Lu, L., & Hesketh, T. (2009). China's excess males, sex selective abortion, and one child policy: analysis of data from 2005 national intercensus survey. *Bmj*, *338*, b1211.

Zimmerman, C., Kiss, L., & Hossain, M. (2011). Migration and health: a framework for 21st century policymaking. *PLoS medicine*, *8*(5), e1001034.

Chapter 2

Abdulrahim, S., James, S. A., Yamout, R., & Baker, W. (2012). Discrimination and psychological distress: Does Whiteness matter for Arab Americans?. *Social science & medicine*, *75*(12), 2116-2123.

Acevedo-Garcia, D., Sanchez-Vaznaugh, E. V., Viruell-Fuentes, E. A., & Almeida, J. (2012). Integrating social epidemiology into immigrant health research: a cross-national framework. *Social science & medicine*, *75*(12), 2060-2068.Adames, S. B., & Campbell, R. (2005). Immigrant Latinas' conceptualizations of intimate partner violence. *Violence Against Women*, *11*(10), 1341-1364.

Ahmed, A. T., Mohammed, S. A., & Williams, D. R. (2007). Racial discrimination & health: Pathways & evidence. *Indian Journal of Medical Research*, *126*(4), 318.

Alamilla, S. G., Kim, B. S., & Lam, N. A. (2010). Acculturation, enculturation, perceived racism, minority status stressors, and psychological symptomatology among Latino/as. *Hispanic Journal of Behavioral Sciences*, *32*(1), 55-76.

Alegría, M., Canino, G., Shrout, P. E., Woo, M., Duan, N., Vila, D., ... & Meng, X. L. (2008). Prevalence of mental illness in immigrant and non-immigrant US Latino groups. *American Journal of Psychiatry*, *165*(3), 359-369.

Alwin, Duane F., Michael Braun, and Jackie Scott. 1992. "The Separation of Work and the Family: Attitudes toward Women's Labour-Force Participation in Germany, Great Britain, and the United States." European Sociological Review 8(1):13–37.

Ammar, N. H., Orloff, L. E., Dutton, M. A., & Hass, G. A. (2012). Battered immigrant women in the United States and protection orders: An exploratory research. *Criminal justice review*, *37*(3), 337-359.

Amanor-Boadu, Y., Messing, J. T., Stith, S. M., Anderson, J. R., O'Sullivan, C. S., & Campbell, J. C. (2012). Immigrant and Nonimmigrant Women Factors That Predict Leaving an Abusive Relationship. *Violence against women*, *18*(5), 611-633.

Ameyaw, E. K., Tanle, A., Kissah-Korsah, K., & Amo-Adjei, J. (2016). Women's health decision-making autonomy and skilled birth attendance in Ghana. *International journal of reproductive medicine*, *2016*.

Arellano-Morales, L., Roesch, S. C., Gallo, L. C., Emory, K. T., Molina, K. M., Gonzalez, P., ... & Isasi, C. R. (2015). Prevalence and correlates of perceived ethnic discrimination in the Hispanic Community Health Study/Study of Latinos Sociocultural Ancillary Study. *Journal of Latina/o psychology*, *3*(3), 160.

Armenta, B. E., & Hunt, J. S. (2009). Responding to societal devaluation: Effects of perceived personal and group discrimination on the ethnic group identification and personal self-esteem of Latino/Latina adolescents. *Group Processes & Intergroup Relations*, *12*(1), 23-39.

Asad, A. L., & Clair, M. (2018). Racialized legal status as a social determinant of health. *Social Science & Medicine*, *199*, 19-28.

Assari, S., & Caldwell, C. H. (2018). Social determinants of perceived discrimination among black youth: Intersection of ethnicity and gender. *Children*, *5*(2), 24.

Acevedo-Garcia, D., & Almeida, J. (2012). Special issue introduction: place, migration and health. *Social science & medicine (1982)*, *75*(12), 2055.

Acevedo-Garcia, D., Sanchez-Vaznaugh, E. V., Viruell-Fuentes, E. A., & Almeida, J. (2012). Integrating social epidemiology into immigrant health research: a cross-national framework. *Social science & medicine*, *75*(12), 2060-2068

Alegria, M., Takeuchi, D., Canino, G., Duan, N., Shrout, P., Meng, X. L., ... & Vera, M. (2004). Considering context, place and culture: the National Latino and Asian American Study. *International journal of methods in psychiatric research*, *13*(4), 208-220.

Amnesty International (2014). Torture in 2014. 30 Years of broken promises. Retrieved from https://www.amnesty.org/en/documents/ACT40/004/2014/en/.

Ayón, C., Marsiglia, F. F., & Bermudez-Parsai, M. (2010). Latino family mental health: Exploring the role of discrimination and familismo. *Journal of Community Psychology*, *38*(6), 742-756.

Barnes, L. L., De Leon, C. F. M., Wilson, R. S., Bienias, J. L., Bennett, D. A., & Evans, D. A. (2004). Racial differences in perceived discrimination in a community population of older blacks and whites. *Journal of Aging and Health*, *16*(3), 315-337.

Barry, D. T., & Grilo, C. M. (2003). Cultural, self-esteem, and demographic correlates of perception of personal and group discrimination among East Asian immigrants. *American Journal of Orthopsychiatry*, *73*(2), 223.

Bastia, T. (2014). Intersectionality, migration and development. *Progress in Development Studies*, *14*(3), 237-248.

Bécares, L., & Zhang, N. (2017). Perceived Interpersonal Discrimination and Older Women's Mental Health: Accumulation Across Domains, Attributions, and Time. *American journal of epidemiology*, *187*(5), 924-932.

Beegle, K., Frankenberg, E., & Thomas, D. (2001). Bargaining power within couples and use ofprenatal and delivery care in Indonesia. *Studies in family planning*, *32*(2), 130-146.Bernstein, K. S., Park, S. Y., Shin, J., Cho, S., & Park, Y. (2011). Acculturation, discrimination and depressive symptoms among Korean immigrants in New York City. *Community mental health journal*, *47*(1), 24-34.

Bittman, M., England, P., Sayer, L., Folbre, N., & Matheson, G. (2003). When does gender trump money? Bargaining and time in household work. *American Journal of sociology*, *109*(1), 186-214.

Bent-Goodley, T. B. (2007). Health disparities and violence against women: Why and how cultural and societal influences matter. *Trauma, Violence, & Abuse*, *8*(2), 90-104.

Blau, F. D., Kahn, L. M., Liu, A. Y. H., & Papps, K. L. (2013). The transmission of women's fertility, human capital, and work orientation across immigrant generations. *Journal of Population Economics*, *26*(2), 405-435.

Blodorn, A., Major, B., & Kaiser, C. (2016). Perceived discrimination and poor health: Accounting for self-blame complicates a well-established relationship. *Social Science & Medicine*, *153*, 27-34.

Bird, C. E. (1999). Gender, household labor, and psychological distress: The impact of the amount and division of housework. *Journal of Health and Social Behavior*, 32-45.

Breslau, J., Aguilar-Gaxiola, S., Kendler, K. S., Su, M., Williams, D., & Kessler, R. C. (2006). Specifying race-ethnic differences in risk for psychiatric disorder in a USA national sample. *Psychological medicine*, *36*(1), 57-68.

Bogart, L. M., Landrine, H., Galvan, F. H., Wagner, G. J., & Klein, D. J. (2013). Perceived discrimination and physical health among HIV-positive Black and Latino men who have sex with men. *AIDS and Behavior*, *17*(4), 1431-1441.

Bogic, M., Njoku, A., & Priebe, S. (2015). Long-term mental health of war-refugees: a systematic literature review. *BMC international health and human rights*, *15*(1), 29.

Bose, C. E. (2012). Intersectionality and global gender inequality. *Gender & Society*, *26*(1), 67-72.

Bowleg, L. (2008). When Black+ lesbian+ woman≠ Black lesbian woman: The methodological challenges of qualitative and quantitative intersectionality research. *Sex roles*, *59*(5-6), 312-325.

Brooks, C., & Bolzendahl, C. (2004). The transformation of US gender role attitudes: Cohort replacement, social-structural change, and ideological learning. *Social Science Research*, *33*(1), 106-133.

Boyd, A., Van de Velde, S., Vilagut, G., De Graaf, R., Florescu, S., Alonso, J., ... & EU-WMH Investigators. (2015). Gender differences in mental disorders and suicidality in Europe: results from a large cross-sectional population-based study. *Journal of affective disorders*, *173*, 245-254.

Campbell, J. C. (2002). Health consequences of intimate partner violence. *The lancet*, *359*(9314), 1331-1336.

Carr, E. R., Szymanski, D. M., Taha, F., West, L. M., & Kaslow, N. J. (2014). Understanding the link between multiple oppressions and depression among African American women: The role of internalization. *Psychology of Women Quarterly*, *38*(2), 233-245.

Chae, D. H., Takeuchi, D. T., Barbeau, E. M., Bennett, G. G., Lindsey, J., & Krieger, N. (2008). Unfair treatment, racial/ethnic discrimination, ethnic identification, and smoking among Asian Americans in the National Latino and Asian American Study. *American journal of public health*, *98*(3), 485-492.

Chen, W., Hall, B. J., Ling, L., & Renzaho, A. M. (2017). Pre-migration and post-migration factors associated with mental health in humanitarian migrants in Australia and the moderation effect of post-migration stressors: findings from the first wave data of the BNLA cohort study. *The Lancet Psychiatry*, *4*(3), 218-229.

Chae, D. H., & Yoshikawa, H. (2008). Perceived group devaluation, depression, and HIV-risk behavior among Asian gay men. *Health Psychology*, *27*(2), 140.

Chou, T., Asnaani, A., & Hofmann, S. G. (2012). Perception of racial discrimination and psychopathology across three US ethnic minority groups. *Cultural Diversity and Ethnic Minority Psychology*, *18*(1), 74.

Cloitre, M., Stolbach, B. C., Herman, J. L., Kolk, B. V. D., Pynoos, R., Wang, J., & Petkova, E. (2009). A developmental approach to complex PTSD: Childhood and adult cumulative trauma as predictors of symptom complexity. *Journal of traumatic stress*, *22*(5), 399-408.

Coker, A. L., Smith, P. H., Bethea, L., King, M. R., & McKeown, R. E. (2000a). Physical health consequences of physical and psychological intimate partner violence. *Archives of family medicine*, *9*(5), 451.

Coker, A. L., Smith, P. H., McKeown, R. E., & King, M. J. (2000b). Frequency and correlates of intimate partner violence by type: physical, sexual, and psychological battering. *American journal of public health*, *90*(4), 553.

Colen, C. G., Ramey, D. M., Cooksey, E. C., & Williams, D. R. (2018). Racial disparities in health among nonpoor African Americans and Hispanics: the role of acute and chronic discrimination. *Social Science & Medicine*, *199*, 167-180.

Conde, E., & Gorman, D. M. (2009). Krieger's conceptualization and measurement of discrimination and internalized oppression in studies of adverse health outcomes. *GeoJournal*, *74*(2), 131-142.

Cormack, D., Stanley, J., & Harris, R. (2018). Multiple forms of discrimination and relationships with health and wellbeing: findings from national cross-sectional surveys in Aotearoa/New Zealand. *International journal for equity in health*, *17*(1), 26.

Cotter, D., Hermsen, J. M., & Vanneman, R. (2011). The end of the gender revolution? Gender role attitudes from 1977 to 2008. *American Journal of Sociology*, *117*(1), 259-89.

Davis, K. A. (2004). Unlocking the Door by Giving Her the Key: A Comment on the Adequacy of the U-Visa as a Remedy. *Ala. L. Rev.*, *56*, 557.

Davis, K. (2008). Intersectionality as buzzword: A sociology of science perspective on what makes a feminist theory successful. *Feminist theory*, *9*(1), 67-85.

DeBlaere, C., Brewster, M. E., Bertsch, K. N., DeCarlo, A. L., Kegel, K. A., & Presseau, C. D. (2014). The protective power of collective action for sexual minority women of color: An investigation of multiple discrimination experiences and psychological distress. *Psychology of Women Quarterly*, *38*(1), 20-32.

Devries, K. M., Mak, J. Y., Bacchus, L. J., Child, J. C., Falder, G., Petzold, M., ... & Watts, C. H. (2013). Intimate partner violence and incident depressive symptoms and suicide attempts: a systematic review of longitudinal studies. *PLoS medicine*, *10*(5), e1001439.

Dong, X., Chen, R., & Simon, M. (2014). Experience of Discrimination Among U.S. Chinese Older Adults. *The Journals of Gerontology, 69*, S76.

Dutton, M. A., Green, B. L., Kaltman, S. I., Roesch, D. M., Zeffiro, T. A., & Krause, E. D. (2006). Intimate partner violence, PTSD, and adverse health outcomes. *Journal of interpersonal violence*, *21*(7), 955-968.

Dolezsar, C. M., McGrath, J. J., Herzig, A. J., & Miller, S. B. (2014). Perceived racial discrimination and hypertension: a comprehensive systematic review. *Health Psychology*, *33*(1), 20.

Eek, F., & Axmon, A. (2015). Gender inequality at home is associated with poorer health for women. *Scandinavian journal of public health*, *43*(2), 176-182.

Ellsberg, M., Jansen, H. A., Heise, L., Watts, C. H., & Garcia-Moreno, C. (2008). Intimate partner violence and women's physical and mental health in the WHO multi-country study on women's health and domestic violence: an observational study. *The Lancet*, *371*(9619), 1165-1172.

Evans, C. R., Williams, D. R., Onnela, J. P., & Subramanian, S. V. (2018). A multilevel approach to modeling health inequalities at the intersection of multiple social identities. *Social Science & Medicine*, *203*, 64-73.

Fazel, S., Smith, E. N., Chang, Z., & Geddes, J. R. (2018). Risk factors for interpersonal violence: an umbrella review of meta-analyses. *The British Journal of Psychiatry*, 1-6.

Fazel, M., Wheeler, J., & Danesh, J. (2005). Prevalence of serious mental disorder in 7000 refugees resettled in western countries: a systematic review. *The Lancet*, *365*(9467), 1309-1314.

Ferree, M. M. (2015). Beyond the Us-Them Binary: Power and Exclusion in Intersectional Analysis. *DiGeSt. Journal of Diversity and Gender Studies*, *2*(1-2), 33-38.

Finch, B. K., Kolody, B., & Vega, W. A. (2000). Perceived discrimination and depression among Mexican-origin adults in California. *Journal of Health and Social Behavior*, 295-313.

Frank, K., & Hou, F. (2015). Source-Country Gender Roles and the Division of Labor Within Immigrant Families. *Journal of Marriage and Family*, *77*(2), 557-574.

Frisco, M. L., & Williams, K. (2003). Perceived housework equity, marital happiness, and divorce in dual-earner households. *Journal of Family Issues, 24*(1), 51-73.

Fuwa, M. (2004). Macro-level gender inequality and the division of household labor in 22 countries. American Sociological Review, 69, 751–767.

García-Moreno, C., Zimmerman, C., Morris-Gehring, A., Heise, L., Amin, A., Abrahams, N., ... & Watts, C. (2015). Addressing violence against women: a call to action. *The Lancet*, *385*(9978), 1685-1695.

Gayman, M. D., & Barragan, J. (2013). Multiple perceived reasons for major discrimination and depression. *Society and Mental Health*, *3*(3), 203-220.

Gee, G. (2002). A multilevel analysis of the relationship between institutional and individual racial discrimination and health status. *American Journal of Public Health,92*(4), 615-23.

Gee, G. C., Ryan, A., Laflamme, D. J., & Holt, J. (2006). Self-reported discrimination and mental health status among African descendants, Mexican Americans, and other Latinos in the New Hampshire REACH 2010 Initiative: the added dimension of immigration. *American Journal of Public Health*, *96*(10), 1821-1828.

Gee, G. C., Spencer, M., Chen, J., Yip, T., & Takeuchi, D. T. (2007). The association between self-reported racial discrimination and 12-month DSM-IV mental disorders among Asian Americans nationwide. *Social Science & Medicine*, *64*(10), 1984-1996.

Gee, G. C., Ro, A., Shariff-Marco, S., & Chae, D. (2009). Racial discrimination and health among Asian Americans: evidence, assessment, and directions for future research. *Epidemiologic reviews*, *31*(1), 130-151.

Gee, G. C., & Ponce, N. (2010). Associations between racial discrimination, limited English proficiency, and health-related quality of life among 6 Asian ethnic groups in California. *American Journal of Public Health*, *100*(5), 888-895.

Gee, G. C., Ryan, A., Laflamme, D. J., & Holt, J. (2006). Self-reported discrimination and mental health status among African descendants, Mexican Americans, and other Latinos in the New Hampshire REACH 2010 Initiative: the added dimension of immigration. *American Journal of Public Health*, *96*(10), 1821-1828.

Gee, G. C., Spencer, M., Chen, J., Yip, T., & Takeuchi, D. T. (2007). The association between self-reported racial discrimination and 12-month DSM-IV mental disorders among Asian Americans nationwide. *Social Science & Medicine*, *64*(10), 1984-1996.

Gee, G. C., Ro, A., Shariff-Marco, S., & Chae, D. (2009). Racial discrimination and health among Asian Americans: evidence, assessment, and directions for future research. *Epidemiologic reviews*, *31*(1), 130-151.

Green, M. A., Evans, C. R., & Subramanian, S. V. (2017). Can intersectionality theory enrich population health research? *Social science & medicine (1982)*, *178*, 214.

Grollman, E. A. (2012). Multiple forms of perceived discrimination and health among adolescents and young adults. *Journal of Health and Social Behavior*, *53*(2), 199-214.

Grollman, E. A. (2014). Multiple disadvantaged statuses and health: the role of multiple forms of discrimination. *Journal of health and social behavior*, *55*(1), 3-19.

Gonçalves, M., & Matos, M. (2016). Prevalence of violence against immigrant women: a systematic review of the literature. *Journal of family violence*, *31*(6), 697-710.

Golding, J. M. (1999). Intimate partner violence as a risk factor for mental disorders: A meta-analysis. *Journal of family violence*, *14*(2), 99-132.

Griffin, J. M., Fuhrer, R., Stansfeld, S. A., & Marmot, M. (2002). The importance of low control at work and home on depression and anxiety: do these effects vary by gender and social class?. *Social science & medicine*, *54*(5), 783-798.

Gurrieri, J. (2005). EXPERT GROUP MEETING ON INTERNATIONAL MIGRATION AND DEVELOPMENT IN LATIN AMERICA AND THE CARIBBEAN.

Harryson, L., Novo, M., & Hammarström, A. (2010). Is gender inequality in the domestic sphere associated with psychological distress among women and men? Results from the Northern Swedish Cohort. *Journal of Epidemiology & Community Health*, jech-2010.

Harryson, L., Strandh, M., & Hammarström, A. (2012). Domestic Work and Psychological Distress− What Is the Importance of Relative Socioeconomic Position and Gender Inequality in the Couple Relationship? *PloS one*, *7*(6), e38484.

Haroz, E. E., Ritchey, M., Bass, J. K., Kohrt, B. A., Augustinavicius, J., Michalopoulos, L., ... & Bolton, P. (2017). How is depression experienced around the world? A systematic review of qualitative literature. *Social Science & Medicine*, *183*, 151-162.

Hausmann, R., Tyson, L. D., Bekhouche, Y., & Zahidi, S. (2012). The Global Gender Gap Report 2012. Geneva. Switzerland. World Economic Forum; 2012.

Hazen, A. L., & Soriano, F. I. (2007). Experiences with intimate partner violence among Latina women. *Violence Against Women*, *13*(6), 562-582.Hondagneu-Sotelo, P., & Cranford, C. (2006). Gender and migration. In *Handbook of the Sociology of Gender* (pp. 105-126). Springer, Boston, MA.

Heeringa, S. G., Wagner, J., Torres, M., Duan, N., Adams, T., & Berglund, P. (2004). Sample designs and sampling methods for the Collaborative Psychiatric Epidemiology Studies (CPES). *International journal of methods in psychiatric research*, *13*(4), 221-240.

Hermansson, A. C., Timpka, T., & Thyberg, M. (2002). The mental health of war-wounded refugees: an 8-year follow-up. *The Journal of nervous and mental disease*, *190*(6), 374-380.

Hollifield, M., Warner, T. D., Lian, N., Krakow, B., Jenkins, J. H., Kesler, J., ... & Westermeyer, J. (2002). Measuring trauma and health status in refugees: a critical review. *Jama*, *288*(5), 611-621.

Holtan, N., Antolak, K., Johnson, D. R., Ide, L., Jaranson, J., & Ta, K. (2002). Unrecognized torture affects the health of refugees. *Minnesota Medicine*, *85*(5), 35-39.

Hook, J. L. (2010). Gender inequality in the welfare state: Sex segregation in housework, 1965–2003. *American journal of sociology*, *115*(5), 1480-1523.

Hope, M. O., Assari, S., Cole-Lewis, Y. C., & Caldwell, C. H. (2017). Religious social support, discrimination, and psychiatric disorders among Black adolescents. *Race and Social Problems*, *9*(2), 102-114.

Howard, L. M., Ehrlich, A. M., Gamlen, F., & Oram, S. (2017). Gender-neutral mental health research is sex and gender biased. *The Lancet Psychiatry*, *4*(1), 9-11.

Hwang, W. C., & Goto, S. (2008). The impact of perceived racial discrimination on the mental health of Asian American and Latino college students. *Cultural Diversity and Ethnic Minority Psychology*, *14*(4), 326.

Huynh, V. W., & Fuligni, A. J. (2010). Discrimination hurts: The academic, psychological, and physical well-being of adolescents. *Journal of Research on adolescence*, *20*(4), 916-941.

Huynh, Q. L., Devos, T., & Dunbar, C. M. (2012). The psychological costs of painless but recurring experiences of racial discrimination. *Cultural Diversity and Ethnic Minority Psychology*, *18*(1), 26.

Iversen, V. (2003). Intra-household inequality: a challenge for the capability approach?. *Feminist economics*, *9*(2-3), 93-115.

Jang, Y., Chiriboga, D. A., Kim, G., & Rhew, S. (2010). Perceived discrimination, sense of control, and depressive symptoms among Korean American older adults. *Asian American Journal of Psychology*, *1*(2), 129.

Jatrana, S., & Pasupuleti, S. S. R. (2015). Women's autonomy, education and birth intervals in India: Visiting the less familiar. *Asian Population Studies*, *11*(2), 172-190.

Jayachandran, S. (2015). The roots of gender inequality in developing countries. *economics*, *7*(1), 63-88

John, R., Resendiz, R., & De Vargas, L. W. (1997). Beyond familism? Familism as explicit motive for eldercare among Mexican American caregivers. *Journal of Cross-Cultural Gerontology*, *12*(2), 145-162.

Jones, L., Hughes, M., & Unterstaller, U. (2001). Post-traumatic stress disorder (PTSD) in victims of domestic violence: A review of the research. *Trauma, Violence, & Abuse*, *2*(2), 99-119.

Kalt, A., Hossain, M., Kiss, L., & Zimmerman, C. (2013). Asylum seekers, violence and health: A systematic review of research in high-income host countries. American journal of public health, 103(3), e30-e42.

Karlsen, S., & Nazroo, J. (2002). Relation between racial discrimination, social class, and health among ethnic minority groups. *American Journal of Public Health, 92*(4), 624-31.

Karlsen, S., Nazroo, J. Y., McKenzie, K., Bhui, K., & Weich, S. (2005). Racism, psychosis and common mental disorder among ethnic minority groups in England. *Psychological medicine*, *35*(12), 1795-1803.

Kessler, R. C., Mickelson, K. D., & Williams, D. R. (1999). The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. Journal of Health and Social Behavior, 40(3), 208-230.

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of general psychiatry*, *62*(6), 593-602.

Kessler, R. C. (2007). The global burden of anxiety and mood disorders: putting ESEMeD findings into perspective. *The Journal of clinical psychiatry*, *68*(Suppl 2), 10.

Kessler, R. C., Petukhova, M., Sampson, N. A., Zaslavsky, A. M., & Wittchen, H. U. (2012). Twelve-month and lifetime prevalence and lifetime morbid risk of anxiety and mood disorders in the United States. *International journal of methods in psychiatric research*, *21*(3), 169-184.

Kim, I., & Noh, S. (2014). Ethnic and Gender Differences in the Association Between Discrimination and Depressive Symptoms Among Five Immigrant Groups. *Journal of Immigrant and Minority Health, 16*(6), 1167-1175.

Kim, G., Sellbom, M., & Ford, K. L. (2014). Race/ethnicity and measurement equivalence of the Everyday Discrimination Scale. *Psychological Assessment*, *26*(3), 892.

Kirmayer, L. J., Narasiah, L., Munoz, M., Rashid, M., Ryder, A. G., Guzder, J., ... & Canadian Collaboration for Immigrant and Refugee Health (CCIRH. (2011). Common mental health problems in immigrants and refugees: general approach in primary care. *Canadian Medical Association Journal*, cmaj-090292.

Kishor, S. (2005). A focus on gender: collected papers on gender using DHS data.

Klugman, Jeni, Lucia Hanmer, Sarah Twigg, Tazeen Hasan, Jennifer McCleary-Sills & Julieth Santamaria. 2014. Voice and Agency: Empowering Women and Girls for Shared Prosperity. Washington, DC: World Bank. doi:10.1596/978-1-4648-0359-8. License: Creative Commons Attribution CC BY 3.0 IGO

Krieger, N. (1990). Racial and gender discrimination: risk factors for high blood pressure? *Social science & medicine*, *30*(12), 1273-1281.

Krieger, N. (1999). Embodying inequality: a review of concepts, measures, and methods for studying health consequences of discrimination. *International journal of health services*, *29*(2), 295-352.

Krieger, N. (2001). A glossary for social epidemiology. *Journal of Epidemiology & Community Health*, *55*(10), 693-700.

Krieger, N., & Davey Smith, G. (2004). "Bodies count," and body counts: social epidemiology and embodying inequality. *Epidemiologic reviews*, *26*(1), 92-103.

Krieger, N. (2005). Embodiment: a conceptual glossary for epidemiology. *Journal of Epidemiology & Community Health*, *59*(5), 350-355.

Krieger, N. (2011). *Epidemiology and the people's health: theory and context*. Oxford University Press.

Krieger, N. (2012). Methods for the scientific study of discrimination and health: an ecosocial approach. *American journal of public health*, *102*(5), 936-944.

Kucharska, J. (2017). Cumulative trauma, gender discrimination and mental health in women: mediating role of self-esteem. *Journal of Mental Health*, 1-8.

Kuehner, C. (2017). Why is depression more common among women than among men?. *The Lancet Psychiatry*, *4*(2), 146-158.

Lam, B. T. (2007). Impact of perceived racial discrimination and collective self-esteem on psychological distress among Vietnamese American college students: Sense of coherence as mediator. *American Journal of Orthopsychiatry*, *77*(3), 370.

Lee, R. M. (2003). Do ethnic identity and other-group orientation protect against discrimination for Asian Americans? Journal of Counseling Psychology, 50, 133–141

Leopold, T. A., Ratcheva, V., & Zahidi, S. (2016). The global gender gap report 2016. In World Economic Forum.

Lewis, T. T., Cogburn, C. D., & Williams, D. R. (2015). Self-reported experiences of discrimination and health: scientific advances, ongoing controversies, and emerging issues. *Annual review of clinical psychology*, *11*, 407-440.

Li, S. H., & Graham, B. M. (2017). Why are women so vulnerable to anxiety, trauma-related and stress-related disorders? The potential role of sex hormones. *The Lancet Psychiatry*, *4*(1), 73-82.

Li, L., & Dong, X. (2017). Self-reported Discrimination and Depressive Symptoms Among Older Chinese Adults in Chicago. *Journals of Gerontology Series A: Biomedical Sciences and Medical Sciences, 72*(Suppl1), S119-S124.

Llacer, A., Zunzunegui, M. V., Del Amo, J., Mazarrasa, L., & Bolůmar, F. (2007). The contribution of a gender perspective to the understanding of migrants' health. *Journal of Epidemiology & Community Health*, *61*(Suppl 2), ii4-ii10.

Lim, I. S. (1997). Korean immigrant women's challenge to gender inequality at home: The interplay of economic resources, gender, and family. *Gender & society*, *11*(1), 31-51.

Lindert, J., von Ehrenstein, O. S., Priebe, S., Mielck, A., & Brähler, E. (2009). Depression and anxiety in labor migrants and refugees–a systematic review and meta-analysis. *Social science & medicine*, *69*(2), 246-257.

Logan, T. K., Walker, R., Jordan, C. E., & Leukefeld, C. G. (2006). *Women and victimization: Contributing factors, interventions, and implications*. American Psychological Association.

Logie, C., James, L., Tharao, W., & Loutfy, M. (2013). Associations between HIV-related stigma, racial discrimination, gender discrimination, and depression among HIV-positive African, Caribbean, and Black women in Ontario, Canada. *AIDS patient care and STDs*, *27*(2), 114-122.

Loo, C., Fairbank, J., Scurfield, R., Ruch, L., King, D., Adams, L., . . . Haynes, Stephen N. (2001). Measuring Exposure to Racism: Development and Validation of a Race-Related Stressor Scale (RRSS) for Asian American Vietnam Veterans. *Psychological Assessment, 13*(4), 503-520.

Loo, C. M., Fairbank, J. A., & Chemtob, C. M. (2005). Adverse race-related events as a risk factor for posttraumatic stress disorder in Asian American Vietnam veterans. *The Journal of nervous and mental disease*, *193*(7), 455-463.

Lutz, H. (2015). Intersectionality as method. *DiGeSt. Journal of Diversity and Gender Studies*, *2*(1-2), 39-44.

Lyon, E., Bradshaw, J., Menard, A. (2011). Meeting Survivor's' Needs Through Non-Residential Domestic Violence Services & Supports: Results of a Multi-State Study (NCJ Publication # 237328) U.S. Department of Justice. Washington, DC: U.S. Government Printing Office. Retrieved May 2, 2013, from https://www.ncjrs.gov/pdffiles1/nij/grants/237328.pdf.

Mabsout, R. (2011). Capability and health functioning in Ethiopian households. *Social indicators research*, *101*(3), 359-389.

Masood, N., Okazaki, S., & Takeuchi, D. T. (2009). Gender, family, and community correlates of mental health in South Asian Americans. *Cultural Diversity and Ethnic Minority Psychology*, *15*(3), 265.

McLean, C. P., Asnaani, A., Litz, B. T., & Hofmann, S. G. (2011). Gender differences in anxiety disorders: prevalence, course of illness, comorbidity and burden of illness. *Journal of psychiatric research*, *45*(8), 1027-1035.

Menselson, T., Rehkopf, D. H., & Kubzansky, L. D. (2008). Depression among Latinos in the United States: a meta-analytic review. *Journal of Consulting and Clinical Psychology*, *76*(3), 355.

Mersky, J. P., Janczewski, C. E., & Nitkowski, J. C. (2018). Poor mental health among low-income women in the US: The roles of adverse childhood and adult experiences. *Social Science & Medicine*, *206*, 14-21.

Moradi, B., & Risco, C. (2006). Perceived discrimination experiences and mental health of Latina/o American persons. *Journal of Counseling Psychology, 53*(4), 411-421.

Mendez-Luck, C. A., & Anthony, K. P. (2015). Marianismo and caregiving role beliefs among US-born and immigrant Mexican women. *Journals of Gerontology Series B: Psychological Sciences and Social Sciences*, *71*(5), 926-935.

Miyawaki, C. E. (2015). A review of ethnicity, culture, and acculturation among Asian caregivers of older adults (2000-2012). *SAGE open*, *5*(1), 2158244014566365.

Moradi, B., & Hasan, N. T. (2004). Arab American persons' reported experiences of discrimination and mental health: The mediating role of personal control. *Journal of Counseling Psychology*, *51*(4), 418.

Moss, N. E. (2002). Gender equity and socioeconomic inequality: a framework for the patterning of women's health. *Social science & medicine*, *54*(5), 649-661.

Mossakowski, K. (2003). Coping with Perceived Discrimination: Does Ethnic Identity Protect Mental Health? *Journal of Health and Social Behavior, 44*(3), 318-331.

Mossakowski, Krysia N. (2007). Are Immigrants Healthier? The Case of Depression among Filipino Americans. *Social Psychology Quarterly, 70*(3), 290-304.

Moynihan, B., Gaboury, M. T., & Onken, K. J. (2008). Undocumented and unprotected immigrant women and children in harm's way. *Journal of Forensic Nursing*, *4*(3), 123-129.

Myers, H. F., Wyatt, G. E., Ullman, J. B., Loeb, T. B., Chin, D., Prause, N., ... & Liu, H. (2015). Cumulative burden of lifetime adversities: Trauma and mental health in low-SES African Americans and Latino/as. *Psychological Trauma: Theory, Research, Practice, and Policy*, *7*(3), 243

Oh, Yang, Anglin, & Devylder. (2014). Perceived discrimination and psychotic experiences across multiple ethnic groups in the United States. Schizophrenia Research, 157(1-3), 259-265.

Ong, A. D., Williams, D. R., Nwizu, U., & Gruenewald, T. L. (2017). Everyday unfair treatment and multisystem biological dysregulation in African American adults. Cultural Diversity and Ethnic Minority Psychology, 23(1), 27-35.

Oram, S., Khalifeh, H., & Howard, L. M. (2017). Violence against women and mental health. *The Lancet Psychiatry*, *4*(2), 159-170.

Osamor, P., & Grady, C. (2018). Factors associated with women's health care decision-making autonomy: empirical evidence from Nigeria. *Journal of biosocial science*, *50*(1), 70-85.

Paradies, Y. (2006). A systematic review of empirical research on self-reported racism and health. *International journal of epidemiology*, *35*(4), 888-901.

Paradies, Y., Ben, J., Denson, N., Elias, A., Priest, N., Pieterse, A., ... & Gee, G. (2015). Racism as a determinant of health: a systematic review and meta-analysis. *PloS one*, *10*(9), e0138511.

Pico-Alfonso, M. A., Garcia-Linares, M. I., Celda-Navarro, N., Blasco-Ros, C., Echeburúa, E., & Martinez, M. (2006). The impact of physical, psychological, and sexual intimate male partner violence on women's mental health: depressive symptoms, posttraumatic stress disorder, state anxiety, and suicide. *Journal of women's health*, *15*(5), 599-611.

Parrado, E. A., Flippen, C. A., & McQuiston, C. (2005). Migration and relationship power among Mexican women. *Demography*, *42*(2), 347-372.

Pascoe, E. A., & Smart Richman, L. (2009). Perceived discrimination and health: a meta-analytic review. *Psychological bulletin*, *135*(4), 531.

Röder, A., & Mühlau, P. (2014). Are they acculturating? Europe's immigrants and gender egalitarianism. *Social Forces*, *92*(3), 899-928.

Pérez, D. J., Fortuna, L., & Alegria, M. (2008). Prevalence and correlates of everyday discrimination among US Latinos. *Journal of community psychology*, *36*(4), 421-433.

Peterson, L. M., Matthews, K. A., Derby, C. A., Bromberger, J. T., & Thurston, R. C. (2016). The relationship between cumulative unfair treatment and intima media thickness and adventitial diameter: The moderating role of race in the study of women's health across the nation. *Health Psychology*, *35*(4), 313.

Pittaway, E., & Bartolomei, L. (2001). Refugees, race, and gender: The multiple discrimination against refugee women. *Refuge: Canada's Journal on Refugees*, *19*(6).

Pyke, K. D., & Johnson, D. L. (2003). Asian American Women And Racialized Femininities: "Doing" Gender across Cultural Worlds. *Gender & Society*, *17*(1), 33-53.

Raj, A., & Silverman, J. (2002). Violence Against Immigrant Women: The Roles of Culture, Context, and Legal Immigrant Status on Intimate Partner Violence. *Violence against women*, *8*(3), 367-398.

Richardson, L. J., & Brown, T. H. (2016). (En) gendering racial disparities in health trajectories: A life course and intersectional analysis. *SSM-population health*, *2*, 425-435.

Riecher-Rössler, A. (2017). Sex and gender differences in mental disorders. *The Lancet Psychiatry*, *4*(1), 8-9.

Robinson, E., Sutin, A., & Daly, M. (2017). Perceived weight discrimination mediates the prospective relation between obesity and depressive symptoms in US and UK adults. Health Psychology Open, 36(2), 112-121.

Robjant, K., Hassan, R., & Katona, C. (2009). Mental health implications of detaining asylum seekers: systematic review. The British journal of psychiatry,194(4), 306-312.

Röder, A., & Mühlau, P. (2014). Are they acculturating? Europe's immigrants and gender egalitarianism. *Social Forces*, *92*(3), 899-928.

Rousseau, C., Hassan, G., Moreau, N., & Thombs, B. D. (2011). Perceived discrimination and its association with psychological distress among newly arrived immigrants before and after September 11, 2001. *American journal of public health*, *101*(5), 909-915.

Ryff, C. D., Keyes, C. L. M., & Hughes, D. L. (2003). Status inequalities, perceived discrimination, and eudaimonic well-being: Do the challenges of minority life hone purpose and growth? Journal of Health & Social Behavior, 44(3), 275-291

Sano, Y., Antabe, R., Atuoye, K. N., Braimah, J. A., Galaa, S. Z., & Luginaah, I. (2018a).

Seng, J. S., Lopez, W. D., Sperlich, M., Hamama, L., & Meldrum, C. D. R. (2012). Marginalized identities, discrimination burden, and mental health: Empirical exploration of an interpersonal-level approach to modeling intersectionality. *Social Science & Medicine*, *75*(12), 2437-2445.

Slewa-Younan, S., Guajardo, M. G. U., Heriseanu, A., & Hasan, T. (2015). A systematic review of post-traumatic stress disorder and depression amongst Iraqi refugees located in western countries. *Journal of immigrant and minority health*, *17*(4), 1231-1239.

Staland-Nyman, C., Alexanderson, K., & Hensing, G. (2008). Associations between strain in domestic work and self-rated health: A study of employed women in Sweden. Scandinavian Journal of Public Health, 36, 21–27. doi:10.1177/1403494807085307

Satyanarayana, V. A., Chandra, P. S., & Vaddiparti, K. (2015). Mental health consequences of violence against women and girls. *Current opinion in psychiatry*, *28*(5), 350-356.

Schmitt, M. T., Branscombe, N. R., Postmes, T., & Garcia, A. (2014). The consequences of perceived discrimination for psychological well-being: a meta-analytic review. *Psychological bulletin*, *140*(4), 921.

Schwartz, J. A. (2017). Long-term physical health consequences of perceived inequality: Results from a twin comparison design. Social Science & Medicine, 187, 184-192.

Seedat, S., Scott, K. M., Angermeyer, M. C., Berglund, P., Bromet, E. J., Brugha, T. S., ... & Karam, E. G. (2009). Cross-national associations between gender and mental disorders in the World Health Organization World Mental Health Surveys. *Archives of general psychiatry*, *66*(7), 785-795.

Sen, A. (1987). Gender and cooperative conflicts.

Smith, P. H., & Gittelman, D. K. (1994). Psychological consequences of battering. Implications for women's health and medical practice. *North Carolina medical journal*, *55*(9), 434-439.

Steel, Z., Chey, T., Silove, D., Marnane, C., Bryant, R. A., & Van Ommeren, M. (2009). Association of torture and other potentially traumatic events with mental health outcomes among populations exposed to mass conflict and displacement: a systematic review and meta-analysis. Jama, 302(5), 537-549.

Stempel, C., Sami, N., Koga, P. M., Alemi, Q., Smith, V., & Shirazi, A. (2016). Gendered sources of distress and resilience among Afghan refugees in Northern California: a cross-sectional study. *International journal of environmental research and public health*, *14*(1), 25

Stein, M. B., & Kennedy, C. (2001). Major depressive and post-traumatic stress disorder comorbidity in female victims of intimate partner violence. *Journal of affective disorders*, *66*(2-3), 133-138.

Stepanikova, I., Bateman, L. B., & Oates, G. R. (2017). Systemic inflammation in midlife: Race, socioeconomic status, and perceived discrimination. American Journal of Preventive Medicine, 52(1, Supplement 1), S63-S76.

Sutin, A. R., Stephan, Y., & Terracciano, A. (2015). Weight discrimination and risk of mortality. Psychological Science, 26(11), 1803-1811.

Syed, M., & Juan, M. J. D. (2012). Discrimination and psychological distress: Examining the moderating role of social context in a nationally representative sample of Asian American adults. *Asian American Journal of Psychology*, *3*(2), 104.

Takeuchi, D. T., Zane, N., Hong, S., Chae, D. H., Gong, F., Gee, G. C., ... & Alegría, M. (2007). Immigration-related factors and mental disorders among Asian Americans. *American Journal of Public Health*, *97*(1), 84-90.

Thompson, V. L. S., Noel, J. G., & Campbell, J. (2004). Stigmatization, discrimination, and mental health: The impact of multiple identity status. *American Journal of Orthopsychiatry*, *74*(4), 529-544.

Torres, L., Driscoll, M. W., & Voell, M. (2012). Discrimination, acculturation, acculturative stress, and Latino psychological distress: A moderated mediational model. *Cultural Diversity and Ethnic Minority Psychology*, *18*(1), 17.

Quesada, J., Hart, L. K., & Bourgois, P. (2011). Structural vulnerability and health: Latino migrant laborers in the United States. *Medical anthropology*, *30*(4), 339-362.

United Nations Children's Fund, & Gupta, G. R. (2013). Female genital mutilation/cutting: a statistical overview and exploration of the dynamics of change. *Reproductive Health Matters*, 184-190.

Unicef, & UNICEF. (2014). Ending child marriage: Progress and prospects. *New York: UNICEF*.https://www.unicef.org/media/files/Child_Marriage_Report_7_17_LR..pdf

United Nations, 2015. The World's Women 2015: Trends and Statistics. New York: United Nations, Department of Economic and Social Affairs, Statistics Division. Sales No. E.15.XVII.8.

Umaña-Taylor, A. J., & Updegraff, K. A. (2007). Latino adolescents' mental health: Exploring the interrelations among discrimination, ethnic identity, cultural orientation, self-esteem, and depressive symptoms. *Journal of adolescence*, *30*(4), 549-567.USAID (2005) A Focus on Gender: Collected Papers on Gender Using DHS Data. Calverton, Maryland, USA: ORC Macro.

USAID (2018). Health and Demographic Surveys. https://dhsprogram.com/What-We-Do/Survey-Types/DHS.cfm

Viens, L. J., Clouston, S., & Messina, C. R. (2016). Women's autonomy and cervical cancer screening in the Lesotho Demographic and Health Survey 2009. *Social Science & Medicine*, *150*, 23-30.

Viruell-Fuentes, E. A. (2007). Beyond acculturation: immigration, discrimination, and health research among Mexicans in the United States. *Social science & medicine*, *65*(7), 1524-1535.

Viruell-Fuentes, E. A., Miranda, P. Y., & Abdulrahim, S. (2012). More than culture: structural racism, intersectionality theory, and immigrant health. *Social science & medicine*, *75*(12), 2099-2106.

Wallace, S., Nazroo, J., & Bécares, L. (2016). Cumulative effect of racial discrimination on the mental health of ethnic minorities in the United Kingdom. *American journal of public health*, *106*(7), 1294-1300.

Williams, D. R., Yu, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health: Socio-economic status, stress and discrimination. *Journal of health psychology*, *2*(3), 335-351.

Williams, D. R., John, D. A., Oyserman, D., Sonnega, J., Mohammed, S. A., & Jackson, J. S. (2012). Research on discrimination and health: an exploratory study of unresolved conceptual and measurement issues. *American Journal of Public Health*, *102*(5), 975-978.

Williams, D. R., & Mohammed, S. A. (2009). Discrimination and racial disparities in health: evidence and needed research. *Journal of behavioral medicine*, *32*(1), 20-47.

Williams, D. R., Kontos, E. Z., Viswanath, K., Haas, J. S., Lathan, C. S., MacConaill, L. E., ... & Ayanian, J. Z. (2012). Integrating multiple social statuses in health disparities research: the case of lung cancer. *Health services research*, *47*(3pt2), 1255-1277.

Williams, D. R., Neighbors, H. W., & Jackson, J. S. (2003). Racial/ethnic discrimination and health: findings from community studies. *American journal of public health*, *93*(2), 200-208.

Women, U. N. (2015). *Progress of the World's Women 2015-2016: Transforming Economies, Realizing Rights* (No. id: 7688)

World Health Organization. (2005). WHO multi-country study on women's health and domestic violence against women: summary report of initial results on prevalence, health outcomes and women's responses.

World Health Organization. (2009). *Women and health: today's evidence tomorrow's agenda*.

Zainiddinov, H. (2016). Racial and ethnic differences in perceptions of discrimination among Muslim Americans. Ethnic and Racial Studies, 39(15), 2701-2721.

Zimmerman, C., Kiss, L., & Hossain, M. (2011). Migration and health: a framework for 21st century policymaking. *PLoS medicine*, *8*(5), e1001034.

Yip, T., Gee, G. C., & Takeuchi, D. T. (2008). Racial discrimination and psychological distress: the impact of ethnic identity and age among immigrant and United States-born Asian adults. *Developmental psychology*, *44*(3), 787.

Yoo, H. C., & Lee, R. M. (2008). Does ethnic identity buffer or exacerbate the effects of frequent racial discrimination on situational well-being of Asian Americans? *Journal of Counseling Psychology*, *55*(1), 63.

Chapter 3

Addabbo, T., Arrizabalaga, M. P., & Owens, A. (2016). Introduction: households, gender and the production of well-being. In *Gender inequalities, households and the production of well-being in modern Europe* (pp. 23-44). Routledge.

Staland-Nyman, C., Alexanderson, K., & Hensing, G. (2008). Associations between strain in domestic work and self-rated health: a study of employed women in Sweden. *Scandinavian journal of public health*, *36*(1), 21-27.

Angst, J., Gamma, A., Gastpar, M., Lépine, J. P., Mendlewicz, J., & Tylee, A. (2002). Gender differences in depression. *European archives of psychiatry and clinical neuroscience*, *252*(5), 201-209.

Blau, F. D., & Kahn, L. M. (2013). Female labor supply: Why is the United States falling behind?. *American Economic Review*, *103*(3), 251-56.

Boyd, A., Van de Velde, S., Vilagut, G., De Graaf, R., Florescu, S., Alonso, J., ... & EU-WMH Investigators. (2015). Gender differences in mental disorders and suicidality in Europe: results from a large cross-sectional population-based study. *Journal of affective disorders*, *173*, 245-254.

Brown, T. H., Richardson, L. J., Hargrove, T. W., & Thomas, C. S. (2016). Using multiple-hierarchy stratification and life course approaches to understand health inequalities: The intersecting consequences of race, gender, SES, and age. *Journal of health and social behavior*, *57*(2), 200-222.

Carr, E. R., Szymanski, D. M., Taha, F., West, L. M., & Kaslow, N. J. (2014). Understanding the link between multiple oppressions and depression among African American women: The role of internalization. *Psychology of Women Quarterly*, *38*(2), 233-245.

Caroli, E., & Weber-Baghdiguian, L. (2016). Self-reported health and gender: The role of social norms. *Social Science & Medicine*, *153*, 220-229.

Cerrato, J., & Cifre, E. (2018). Gender inequality in household chores and work-family conflict. *Frontiers in psychology*, *9*, 1330.

Chandola, T., Martikainen, P., Bartley, M., Lahelma, E., Marmot, M., Michikazu, S., ... & Kagamimori, S. (2004). Does conflict between home and work explain the effect of multiple roles on mental health? A comparative study of Finland, Japan, and the UK. *International journal of epidemiology*, *33*(4), 884-893.

Chandola, Tarani, Jenny Head, and Mel Bartley. "Socio-demographic predictors of quitting smoking: how important are household factors?." *Addiction* 99, no. 6 (2004): 770-777.

Cohen, S., Kamarck, T., Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, *24*, 385-396.

Cohen, S., & Williamson, G. (1988). Perceived stress in a probability sample of the United States.In S. Spacapam & S. Oskamp (Eds.), *The social psychology of health: Claremont*
Symposium on applied social psychology. Newbury Park, CA: Sage.

Coker, A. L., Smith, P. H., Bethea, L., King, M. R., & McKeown, R. E. (2000). Physical health consequences of physical and psychological intimate partner violence. *Archives of family medicine*, *9*(5), 451.

Cormack, D., Stanley, J., & Harris, R. (2018). Multiple forms of discrimination and relationships with health and wellbeing: findings from national cross-sectional surveys in Aotearoa/New Zealand. *International journal for equity in health*, *17*(1), 26.

Davis, K. (2008). Intersectionality as buzzword: A sociology of science perspective on what makes a feminist theory successful. *Feminist theory*, *9*(1), 67-85.

Devins, G.M., and Orme, C.M. 1985. "Center for Epidemiologic Studies Depression Scale." *Test*
Critiques, 21(3), 267-283.

Eek, F., & Axmon, A. (2015). Gender inequality at home is associated with poorer health for women. *Scandinavian journal of public health*, *43*(2), 176-182.

Evans, C. R., & Erickson, N. (2019). Intersectionality and depression in adolescence and early adulthood: a MAIHDA analysis of the national longitudinal study of adolescent to adult health, 1995–2008. *Social Science & Medicine*, *220*, 1-11.

Evans, C. R., Williams, D. R., Onnela, J. P., & Subramanian, S. V. (2018). A multilevel approach to modeling health inequalities at the intersection of multiple social identities. *Social Science & Medicine*, *203*, 64-73.

Fettro, M. N., & Nomaguchi, K. (2018). Spousal problems and family-to-work conflict among employed US adults. *Journal of family and economic issues*, *39*(2), 277-296.

Frank, K., & Hou, F. (2015). Source-country gender roles and the division of labor within immigrant families. *Journal of Marriage and Family*, *77*(2), 557-574.

Garnett, B. R., Masyn, K. E., Austin, S. B., Miller, M., Williams, D. R., & Viswanath, K. (2014). The intersectionality of discrimination attributes and bullying among youth: An applied latent class analysis. *Journal of youth and adolescence*, *43*(8), 1225-1239.

Gee, G. C. (2008). A multilevel analysis of the relationship between institutional and individual racial discrimination and health status. *American journal of public health*, *98*(Supplement_1), S48-S56.

Gee, G. C., Ryan, A., Laflamme, D. J., & Holt, J. (2006). Self-reported discrimination and mental health status among African descendants, Mexican Americans, and other Latinos in the New Hampshire REACH 2010 Initiative: the added dimension of immigration. *American Journal of Public Health*, *96*(10), 1821-1828.

Gee, G. C., Ryan, A., Laflamme, D. J., & Holt, J. (2006). Self-reported discrimination and mental health status among African descendants, Mexican Americans, and other Latinos in the New Hampshire REACH 2010 Initiative: the added dimension of immigration. *American journal of public health*, *96*(10), 1821-1828.

Gkiouleka, A., Huijts, T., Beckfield, J., & Bambra, C. (2018). Understanding the micro and macro politics of health: Inequalities, intersectionality & institutions-A research agenda. *Social Science & Medicine*, *200*, 92-98.

Griffin, J. M., Fuhrer, R., Stansfeld, S. A., & Marmot, M. (2002). The importance of low control at work and home on depression and anxiety: do these effects vary by gender and social class?. *Social science & medicine*, *54*(5), 783-798.

Green, M. A., Evans, C. R., & Subramanian, S. V. (2017). Can intersectionality theory enrich population health research?.

Grollman, E. A. (2012). Multiple forms of perceived discrimination and health among adolescents and young adults. *Journal of Health and Social Behavior*, *53*(2), 199-214.

Grollman, E. A. (2014). Multiple disadvantaged statuses and health: the role of multiple forms of discrimination. *Journal of health and social behavior*, *55*(1), 3-19.

Hammen, C., Henry, R., & Daley, S. E. (2000). Depression and sensitization to stressors among young women as a function of childhood adversity. *Journal of consulting and clinical psychology*, *68*(5), 782.

Hayes, A. F. (2017). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. Guilford publications.

Iversen, V. (2003). Intra-household inequality: a challenge for the capability approach?. *Feminist economics*, *9*(2-3), 93-115.

Jayachandran, S. (2015). The roots of gender inequality in developing countries. *economics*, *7*(1), 63-88.

Harryson, L., Strandh, M., & Hammarström, A. (2012). Domestic Work and Psychological Distress− What Is the Importance of Relative Socioeconomic Position and Gender Inequality in the Couple Relationship?. *PloS one*, *7*(6).

Harryson, L., Novo, M., & Hammarström, A. (2012). Is gender inequality in the domestic sphere associated with psychological distress among women and men? Results from the Northern Swedish Cohort. *J Epidemiol Community Health*, *66*(3), 271-276.

Hou, F., & Frank, K. (2015). *Source-country female labour force participation and the wages of immigrant women in Canada* (No. 2015365e). Statistics Canada, Analytical Studies Branch.

Howard, L. M., Ehrlich, A. M., Gamlen, F., & Oram, S. (2017). Gender-neutral mental health research is sex and gender biased. *The Lancet Psychiatry*, *4*(1), 9-11.

Karlsen, S., & Nazroo, J. Y. (2002). Relation between racial discrimination, social class, and health among ethnic minority groups. *American journal of public health*, *92*(4), 624-631.

Kim, I. H., & Noh, S. (2014). Ethnic and gender differences in the association between discrimination and depressive symptoms among five immigrant groups. *Journal of immigrant and minority health*, *16*(6), 1167-1175.

Kessler, R. C., Mickelson, K. D., & Williams, D. R. (1999). The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. *Journal of health and social behavior*, 208-230.

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of general psychiatry*, *62*(6), 593-602.

Kessler, R. C. (2007). The global burden of anxiety and mood disorders: putting ESEMeD findings into perspective. *The Journal of clinical psychiatry*, *68*(Suppl 2), 10.

Kessler, R. C., Petukhova, M., Sampson, N. A., Zaslavsky, A. M., & Wittchen, H. U. (2012). Twelve-month and lifetime prevalence and lifetime morbid risk of anxiety and mood disorders in the United States. *International journal of methods in psychiatric research*, *21*(3), 169-184.

Krieger, N. (1999). Embodying inequality: a review of concepts, measures, and methods for studying health consequences of discrimination. *International journal of health services*, *29*(2), 295-352.

Krieger, N. (2012). Methods for the scientific study of discrimination and health: an ecosocial approach. *American journal of public health*, *102*(5), 936-944.

Kuehner, C. (2017). Why is depression more common among women than among men?. *The Lancet Psychiatry*, *4*(2), 146-158

Landstedt, E., Harryson, L., & Hammarström, A. (2016). Changing housework, changing health? A longitudinal analysis of how changes in housework are associated with functional somatic symptoms. *International journal of circumpolar health*, *75*(1), 31781.

Li, L. W., & Dong, X. (2017). Self-reported discrimination and depressive symptoms among older Chinese adults in Chicago. *Journals of Gerontology Series A: Biomedical Sciences and Medical Sciences*, *72*(suppl_1), S119-S124.

Li, S. H., & Graham, B. M. (2017). Why are women so vulnerable to anxiety, trauma-related and stress-related disorders? The potential role of sex hormones. *The Lancet Psychiatry*, *4*(1), 73-82.

Leopold, T. A., Ratcheva, V., & Zahidi, S. (2016). The global gender gap report 2016. World Economic Forum.

Lewis, T. T., Cogburn, C. D., & Williams, D. R. (2015). Self-reported experiences of discrimination and health: scientific advances, ongoing controversies, and emerging issues. *Annual review of clinical psychology*, *11*, 407-440.

McDonough, P., Walters, V., & Strohschein, L. (2002). Chronic stress and the social patterning of women's health in Canada. *Social Science & Medicine*, *54*(5), 767-782.

McLean, C. P., Asnaani, A., Litz, B. T., & Hofmann, S. G. (2011). Gender differences in anxiety disorders: prevalence, course of illness, comorbidity and burden of illness. *Journal of psychiatric research*, *45*(8), 1027-1035.

Molarius, A., Granström, F., Lindén-Boström, M., & Elo, S. (2014). Domestic work and self-rated health among women and men aged 25–64 years: Results from a population-based survey in Sweden. *Scandinavian journal of public health*, *42*(1), 52-59.

Moradi, B., & Risco, C. (2006). Perceived discrimination experiences and mental health of Latina/o american persons. *Journal of Counseling Psychology*, *53*(4), 411.

Moss, N. E. (2002). Gender equity and socioeconomic inequality: a framework for the patterning of women's health. *Social science & medicine*, *54*(5), 649-661.

Nolen-Hoeksema, S. (2001). Gender differences in depression. *Current directions in psychological science*, *10*(5), 173-176.

Oh, H., Yang, L. H., Anglin, D. M., & DeVylder, J. E. (2014). Perceived discrimination and psychotic experiences across multiple ethnic groups in the United States. *Schizophrenia research*, *157*(1-3), 259-265.

Paradies, Y. (2006). A systematic review of empirical research on self-reported racism and health. *International journal of epidemiology*, *35*(4), 888-901.

Paradies, Y., Ben, J., Denson, N., Elias, A., Priest, N., Pieterse, A., ... & Gee, G. (2015). Racism as a determinant of health: a systematic review and meta-analysis. *PloS one*, *10*(9).

Pascoe, E. A., & Smart Richman, L. (2009). Perceived discrimination and health: a meta-analytic review. *Psychological bulletin*, *135*(4), 531.

Piccinelli, M., & Wilkinson, G. (2000). Gender differences in depression: Critical review. *The British Journal of Psychiatry*, *177*(6), 486-492.

Riecher-Rössler, A. (2017). Sex and gender differences in mental disorders. *The Lancet Psychiatry*, *4*(1), 8-9.

Radloff, L.S. 1977. "The CES-D Scale: A self-report depression scale for research in the general
population." *Applied Psychology Measurement, 1(3), 385-401.*

Richman, L. S., & Zucker, A. N. (2019). Quantifying intersectionality: an important advancement for health inequality research. *Social Science & Medicine*, *226*, 246-248.

Robinson, E., Sutin, A., & Daly, M. (2017). Perceived weight discrimination mediates the prospective relation between obesity and depressive symptoms in US and UK adults. *Health Psychology*, *36*(2), 112.

Roberts, R.E., and Vernon, S.W. 1983. "The center for epidemiologic studies depression scale: Its use in a community sample." *American Journal of Psychiatry, 140(1), 41-46.*

Röder, A., & Mühlau, P. (2014). Are they acculturating? Europe's immigrants and gender egalitarianism. *Social Forces*, *92*(3), 899-928.

Ryff C, Almeida D, Binkley N, Carr D, Coe C, Davidson R. et al. National Survey of Midlife Development in the United States (MIDUS Refresher), 2011–2014. Ann Arbor, MI: Interuniversity Consortium for Political and Social Research; 2016. ICPSR36532-v2

Salk, R. H., Hyde, J. S., & Abramson, L. Y. (2017). Gender differences in depression in representative national samples: meta-analyses of diagnoses and symptoms. *Psychological bulletin*, *143*(8), 783.

Schmitt, M. T., Branscombe, N. R., Kobrynowicz, D., & Owen, S. (2002). Perceiving discrimination against one's gender group has different implications for well-being in women and men. *Personality and Social Psychology Bulletin*, *28*(2), 197-210.

Schmitt, M. T., Branscombe, N. R., Postmes, T., & Garcia, A. (2014). The consequences of perceived discrimination for psychological well-being: a meta-analytic review. *Psychological bulletin*, *140*(4), 921.

Seedat, S., Scott, K. M., Angermeyer, M. C., Berglund, P., Bromet, E. J., Brugha, T. S., ... & Karam, E. G. (2009). Cross-national associations between gender and mental disorders in the World Health Organization World Mental Health Surveys. *Archives of general psychiatry*, *66*(7), 785-795.

Sen, A. (1987). Gender and cooperative conflicts.

Sen, G., & Östlin, P. (2008). Gender inequity in health: why it exists and how we can change it.

Samman, E., & Santos, M. E. (2009). Agency and Empowerment: A review of concepts, indicators and empirical evidence.

Seng, J. S., Lopez, W. D., Sperlich, M., Hamama, L., & Meldrum, C. D. R. (2012). Marginalized identities, discrimination burden, and mental health: Empirical exploration of an interpersonal-level approach to modeling intersectionality. *Social Science & Medicine*, *75*(12), 2437-2445.

Siddaway, A. P., Taylor, P. J., Wood, A. M., & Schulz, J. (2015). A meta-analysis of perceptions of defeat and entrapment in depression, anxiety problems, posttraumatic stress disorder, and suicidality. *Journal of affective disorders*, *184*, 149-159.

Slopen, N., Non, A., Williams, D. R., Roberts, A. L., & Albert, M. A. (2014). Childhood adversity, adult neighborhood context, and cumulative biological risk for chronic diseases in adulthood. *Psychosomatic medicine*, *76*(7), 481.

Sternthal, M. J., Slopen, N., & Williams, D. R. (2011). Racial disparities in health: how much does stress really matter?. *Du Bois Review: Social Science Research on Race*, *8*(1), 95-113.

Sperlich, S., & Geyer, S. (2015). The impact of social and family-related factors on women's stress experience in household and family work. *International journal of public health*, *60*(3), 375-387.

Spielberger, C. D. (1983). Manual for the state–trait anxiety inventory (Form Y) ("Self-evaluation questionnaire"), Consulting Psychologists Press, Palo Alto, CA.

Spielberger, C. D. (1989). State–trait anxiety inventory: a comprehensive bibliography. , Consulting Psychologists Press, Palo Alto, CA.

Staland-Nyman, C., Alexanderson, K., & Hensing, G. (2008). Associations between strain in domestic work and self-rated health: a study of employed women in Sweden. *Scandinavian journal of public health*, *36*(1), 21-27.

Staland Nyman, C., Alexanderson, K., & Hensing, G. (2008b). Sickness absence in women—what are the associations with domestic work?. In *European Journal of Public Health* (Vol. 18, No. Suppl. 1, pp. 36-36). Oxford University Press.

Taylor, P. J., Gooding, P., Wood, A. M., & Tarrier, N. (2011). The role of defeat and entrapment in depression, anxiety, and suicide. *Psychological bulletin*, *137*(3), 391.

Umaña-Taylor, A. J., & Updegraff, K. A. (2007). Latino adolescents' mental health: Exploring the interrelations among discrimination, ethnic identity, cultural orientation, self-esteem, and depressive symptoms. *Journal of adolescence*, *30*(4), 549-567.

Van de Velde, S., Bracke, P., & Levecque, K. (2010). Gender differences in depression in 23 European countries. Cross-national variation in the gender gap in depression. *Social science & medicine*, *71*(2), 305-313.

Väänänen, A., Kevin, M. V., Ala-Mursula, L., Pentti, J., Kivimäki, M., & Vahtera, J. (2005). The double burden of and negative spillover between paid and domestic work: associations with health among men and women. *Women & health*, *40*(3), 1-18.

Wagman, P., Lindmark, U., Rolander, B., Wåhlin, C., & Håkansson, C. (2017). Occupational balance in health professionals in Sweden. *Scandinavian journal of occupational therapy*, *24*(1), 18-23.

McDonough, P., Walters, V., & Strohschein, L. (2002). Chronic stress and the social patterning of women's health in Canada. *Social Science & Medicine*, *54*(5), 767-782.

Williams, D. R. (1999). Race, socioeconomic status, and health the added effects of racism and discrimination.

Williams, D. R., & Mohammed, S. A. (2009). Discrimination and racial disparities in health: evidence and needed research. *Journal of behavioral medicine*, *32*(1), 20-47.

Williams, D. R., Yu, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health: Socio-economic status, stress and discrimination. *Journal of health psychology*, *2*(3), 335-351.

Williams, D. R., John, D. A., Oyserman, D., Sonnega, J., Mohammed, S. A., & Jackson, J. S. (2012). Research on discrimination and health: an exploratory study of

unresolved conceptual and measurement issues. *American Journal of Public Health*, *102*(5), 975-978.
Williams, D. R., Neighbors, H. W., & Jackson, J. S. (2003). Racial/ethnic discrimination and health: findings from community studies. *American journal of public health*, *93*(2), 200-208.
Williams, D. R., Neighbors, H. W., & Jackson, J. S. (2003). Racial/ethnic discrimination and health: findings from community studies. *American journal of public health*, *93*(2), 200-208.
Women, U.N. (2015). Progress of the World' s Women 2015-2016: Transforming Economies, Realizing Rights (No. id: 7688). Retrieved from http://progress.unwomen.org/en/2015/pdf/UNW_progressreport.pdf

World Bank (2012). World Development Report 2012: Gender Equality and Development. Retrieved from https://openknowledge.worldbank.org/handle/10986/4391.

World Health Organization. (2009). Women and health: today's evidence tomorrow's agenda. Retrieved from http://www.who.int/gender-equity-rights/knowledge/9789241563857/en/.

Chapter 4

Abdulrahim, S., James, S. A., Yamout, R., & Baker, W. (2012). Discrimination and psychological distress: Does Whiteness matter for Arab Americans? *Social science & medicine*, *75*(12), 2116-2123.
Alemi, Q., James, S., Cruz, R., Zepeda, V., & Racadio, M. (2013). Psychological Distress in Afghan Refugees: A Mixed-Method Systematic Review. Journal of Immigrant and Minority Health, 1-15.
Anda, R. F., Felitti, V. J., Bremner, J. D., Walker, J. D., Whitfield, C. H., Perry, B. D., ... & Giles, W. H. (2006). The enduring effects of abuse and related adverse experiences in childhood. *European archives of psychiatry and clinical neuroscience*, *256*(3), 174-186.
Ahmed, A. T., Mohammed, S. A., & Williams, D. R. (2007). Racial discrimination & health: Pathways & evidence. *Indian Journal of Medical Research*, *126*(4), 318.
Ayalon, L., & Gum, A. M. (2011). The relationships between major lifetime discrimination, everyday discrimination, and mental health in three racial and ethnic groups of older adults. *Aging & mental health*, *15*(5), 587-594.
Beatty Moody, D. L., Brown, C., Matthews, K. A., & Bromberger, J. T. (2014). Everyday discrimination prospectively predicts inflammation across 7-years in racially diverse midlife women: Study of women's health across the nation. *Journal of Social Issues*, *70*(2), 298-314.
Benner, A. D., Wang, Y., Shen, Y., Boyle, A. E., Polk, R., & Cheng, Y. P. (2018). Racial/ethnic discrimination and well-being during adolescence: A meta-analytic review. *American Psychologist*, *73*(7), 855.
Bellis, M. A., Hughes, K., Leckenby, N., Hardcastle, K. A., Perkins, C., & Lowey, H. (2015). Measuring mortality and the burden of adult disease associated with

adverse childhood experiences in England: a national survey. *Journal of public health*, *37*(3), 445-454.

Boyd, A., Van de Velde, S., Vilagut, G., De Graaf, R., Florescu, S., Alonso, J., ... & EU-WMH Investigators. (2015). Gender differences in mental disorders and suicidality in Europe: results from a large cross-sectional population-based study. *Journal of affective disorders*, *173*, 245-254.

Brown, A. D., Antonius, D., Kramer, M., Root, J. C., & Hirst, W. (2010). Trauma centrality and PTSD in veterans returning from Iraq and Afghanistan. *Journal of traumatic stress*, *23*(4), 496-499.

Brown, D. W., Anda, R. F., Tiemeier, H., Felitti, V. J., Edwards, V. J., Croft, J. B., & Giles, W. H. (2009). Adverse childhood experiences and the risk of premature mortality. *American journal of preventive medicine*, *37*(5), 389-396.

Bucchianeri, M. M., Eisenberg, M. E., Wall, M. M., Piran, N., & Neumark-Sztainer, D. (2014). Multiple types of harassment: associations with emotional well-being and unhealthy behaviors in adolescents. *Journal of Adolescent Health*, *54*(6), 724-729.

Carr, E. R., Szymanski, D. M., Taha, F., West, L. M., & Kaslow, N. J. (2014). Understanding the link between multiple oppressions and depression among African American women: The role of internalization. *Psychology of Women Quarterly*, *38*(2), 233-245.

Carr, E. R., Szymanski, D. M., Taha, F., West, L. M., & Kaslow, N. J. (2014). Understanding the link between multiple oppressions and depression among African American women: The role of internalization. *Psychology of Women Quarterly*, *38*(2), 233-245.

Cohen, S., Kamarck, T., Mermelstein, R. (1983). A global measure of perceived stress. *Journal of Health and Social Behavior*, *24*, 385-396.

Cohen, S., & Williamson, G. (1988). Perceived stress in a probability sample of the United States.In S. Spacapam & S. Oskamp (Eds.), *The social psychology of health: Claremont Symposium on applied social psychology.* Newbury Park, CA: Sage

Cormack, D., Stanley, J., & Harris, R. (2018). Multiple forms of discrimination and relationships with health and wellbeing: findings from national cross-sectional surveys in Aotearoa/New Zealand. *International journal for equity in health*, *17*(1), 26.

DeBlaere, C., Brewster, M. E., Bertsch, K. N., DeCarlo, A. L., Kegel, K. A., & Presseau, C. D. (2014). The protective power of collective action for sexual minority women of color: An investigation of multiple discrimination experiences and psychological distress. *Psychology of Women Quarterly*, *38*(1), 20-32.

Devins, G.M., and Orme, C.M. 1985. "Center for Epidemiologic Studies Depression Scale." *TestCritiques, 21(3), 267-283.*

Dohrenwend, B. P. (2006). Inventorying stressful life events as risk factors for psychopathology: Toward resolution of the problem of intracategory variability. *Psychological bulletin*, *132*(3), 477.

Ehring, T., Ehlers, A., Cleare, A. J., & Glucksman, E. (2008). Do acute psychological and psychobiological responses to trauma predict subsequent symptom severities of PTSD and depression? *Psychiatry Research*, *161*(1), 67-75.

Elliot, A. J., Turiano, N. A., Infurna, F. J., Lachman, M. E., & Chapman, B. P. (2018). Lifetime trauma, perceived control, and all-cause mortality: results from the Midlife in the United States study. *Health Psychology*, *37*(3), 262.

Evans, G. W., & Cassells, R. C. (2014). Childhood poverty, cumulative risk exposure, and mental health in emerging adults. *Clinical Psychological Science*, *2*(3), 287-296.

Evans, C. R., Williams, D. R., Onnela, J. P., & Subramanian, S. V. (2018). A multilevel approach to modeling health inequalities at the intersection of multiple social identities. *Social Science & Medicine*, *203*, 64-73.

Evans, C. R. (2019). Modeling the intersectionality of processes in the social production of health inequalities. *Social Science & Medicine*, *226*, 249-253.

Evans, C. R., & Erickson, N. (2019). Intersectionality and depression in adolescence and early adulthood: a MAIHDA analysis of the national longitudinal study of adolescent to adult health, 1995–2008. *Social Science & Medicine*, *220*, 1-11.

Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Apitz, A. M., Edwards, V., et al. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: The adverse childhood experiences (ACE) study. American Journal of Preventative Medicine, 14, 245–258.

Ford, J. D., Racusin, R., Ellis, C., Davis, W. B., Reiser, J., Fleischer, A., et al. (2000). Child maltreatment, other trauma exposure and posstraumatic symptomatology among children with Oppositional Defiant and Attention Deficit Hyperactive disorders. Child Maltreatment, 5, 205–217.

Ford, J. D., Stockton, P., Kaltman, S., & Green, B. L. (2006). Disorders of extreme stress (DESNOS) symptoms are associated with type and severity of interpersonal trauma exposure in a sample of healthy young women. Journal of Interpersonal Violence, 21, 1399–1416.

Fuller-Rowell, T. E., Curtis, D. S., Chae, D. H., & Ryff, C. D. (2018). Longitudinal health consequences of socioeconomic disadvantage: Examining perceived discrimination as a mediator. *Health Psychology*, *37*(5), 491.

Gayman, M. D., & Barragan, J. (2013). Multiple perceived reasons for major discrimination and depression. *Society and Mental Health*, *3*(3), 203-220.

Gee, G. C., Ryan, A., Laflamme, D. J., & Holt, J. (2006). Self-reported discrimination and mental health status among African descendants, Mexican Americans, and other Latinos in the New Hampshire REACH 2010 Initiative: the added dimension of immigration. *American journal of public health*, *96*(10), 1821-1828.

Gee, G. C., Spencer, M. S., Chen, J., & Takeuchi, D. (2007). A nationwide study of discrimination and chronic health conditions among Asian Americans. *American Journal of Public Health*, *97*(7), 1275-1282.

Giurgescu, C., McFarlin, B. L., Lomax, J., Craddock, C., & Albrecht, A. (2011). Racial discrimination and the Black-White gap in adverse birth outcomes: a review. *Journal of midwifery & women's health*, *56*(4), 362-370.

Glaser, J. P., van Os, J., Portegijs, P. J. M., & Myin-Germeys, I. (2006). Childhood trauma and emotional reactivity to daily life stress in adult frequent attenders of general practitioners. Journal of Psychosomatic Research, 61, 229–236.

Glaser, D. (2000). Child abuse and neglect and the brain—A review. Journal of Child Psychology and Psychiatry, 41, 97–116. Grasso, D. J., Ford, J. D., & Briggs-

Gowan, M. J. (2013). Early life trauma exposure and stress sensitivity in young children. Journal of Pediatric Psychology, 38(1), 94–103.
Gkiouleka, A., Huijts, T., Beckfield, J., & Bambra, C. (2018). Understanding the micro and macro politics of health: Inequalities, intersectionality & institutions-A research agenda. *Social Science & Medicine*, *200*, 92-98.
Green, M. A., Evans, C. R., & Subramanian, S. V. (2017). Can intersectionality theory enrich population health research?.
Grollman, E. A. (2012). Multiple forms of perceived discrimination and health among adolescents and young adults. *Journal of Health and Social Behavior*, *53*(2), 199-214.
Grollman, E. A. (2014). Multiple disadvantaged statuses and health: the role of multiple forms of discrimination. *Journal of health and social behavior*, *55*(1), 3-19.
Harnois, C. E., & Bastos, J. L. (2019). The promise and pitfalls of intersectional scale development.
Harnois, C. E., & Ifatunji, M. (2011). Gendered measures, gendered models: toward an intersectional analysis of interpersonal racial discrimination. *Ethnic and Racial Studies*, *34*(6), 1006-1028.
Hayes, A. F. (2017). Introduction to mediation, moderation, and conditional process analysis: A regression-based approach. Guilford publications.
Hermansson, A. C., Timpka, T., & Thyberg, M. (2002). The mental health of war-wounded refugees: an 8-year follow-up. The Journal of nervous and mental disease, 190(6), 374-380.
Hemmingsson, T., & Lundberg, I. (2005). How far are socioeconomic differences in coronary heart disease hospitalization, all-cause mortality and cardiovascular mortality among adult Swedish males attributable to negative childhood circumstances and behaviour in adolescence?. *International Journal of Epidemiology*, *34*(2), 260-267.
Holtan, N., Antolak, K., Johnson, D. R., Ide, L., Jaranson, J., & Ta, K. (2002). Unrecognized torture affects the health of refugees. Minnesota medicine, 85(5), 35-39.
Howard, L. M., Ehrlich, A. M., Gamlen, F., & Oram, S. (2017). Gender-neutral mental health research is sex and gender biased. *The Lancet Psychiatry*, *4*(1), 9-11.
Huebner, D. M., Rebchook, G. M., & Kegeles, S. M. (2004). Experiences of harassment, discrimination, and physical violence among young gay and bisexual men. *American Journal of Public Health*, *94*(7), 1200-1203.
Hunte, H. E., & Williams, D. R. (2009). The association between perceived discrimination and obesity in a population-based multiracial and multiethnic adult sample. *American journal of public health*, *99*(7), 1285-1292.
Jamil, H., Nassar-McMillan, S., Lambert, R., Wang, Y., Ager, J., & Arnetz, B. (2010). Pre- and post-displacement stressors and time of migration as related to self-rated health among Iraqi immigrants and refugees in Southeast Michigan.Medicine, Conflict and Survival, 26(3), 207-222.
Kelly-Irving, M., Lepage, B., Dedieu, D., Bartley, M., Blane, D., Grosclaude, P., ... & Delpierre, C. (2013). Adverse childhood experiences and premature all-cause mortality. *European journal of epidemiology*, *28*(9), 721-734.

Kessler, R. C., Mickelson, K. D., & Williams, D. R. (1999). The prevalence, distribution, and mental health correlates of perceived discrimination in the United States. *Journal of health and social behavior*, 208-230.

Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of general psychiatry*, *62*(6), 593-602.

Kessler, R. C. (2007). The global burden of anxiety and mood disorders: putting ESEMeD findings into perspective. *The Journal of clinical psychiatry*, *68*(Suppl 2), 10.

Kessler, R. C., Petukhova, M., Sampson, N. A., Zaslavsky, A. M., & Wittchen, H. U. (2012). Twelve-month and lifetime prevalence and lifetime morbid risk of anxiety and mood disorders in the United States. *International journal of methods in psychiatric research*, *21*(3), 169-184.

Kim, I. H., Carrasco, C., Muntaner, C., McKenzie, K., & Noh, S. (2013). Ethnicity and post migration health trajectory in new immigrants to Canada. *American Journal of Public Health*, *103*(4), e96-e104

Krieger, N. (1990). Racial and gender discrimination: risk factors for high blood pressure?. *Social science & medicine*, *30*(12), 1273-1281.

Krieger, N. (2001a). A glossary for social epidemiology. *Journal of Epidemiology & Community Health*, *55*(10), 693-700.

Krieger, N. (2003). Genders, sexes, and health: what are the connections—and why does it matter?. *International journal of epidemiology*, *32*(4), 652-657.

Krieger, N., & Davey Smith, G. (2004). "Bodies count," and body counts: social epidemiology and embodying inequality. *Epidemiologic reviews*, *26*(1), 92-103.

Krieger, N. (2011). *Epidemiology and the people's health: theory and context*. Oxford University Press.

Koch-Weser, S., Liang, S. L., & Grigg-Saito, D. C. (2006). Self-reported health among Cambodians in Lowell, Massachusetts. Journal of health care for the poor and underserved, 17(2), 133-145.

Kuehner, C. (2017). Why is depression more common among women than among men?. *The Lancet Psychiatry*, *4*(2), 146-158.

Kulkarni, M., Porter, K. E., & Rauch, S. A. (2012). Anger, dissociation, and PTSD among male veterans entering into PTSD treatment. *Journal of anxiety disorders*, *26*(2), 271-278.

Lewis, T. T., Aiello, A. E., Leurgans, S., Kelly, J., & Barnes, L. L. (2010). Self-reported experiences of everyday discrimination are associated with elevated C-reactive protein levels in older African-American adults. *Brain, behavior, and immunity*, *24*(3), 438-443.

Lewis, T. T., Cogburn, C. D., & Williams, D. R. (2015). Self-reported experiences of discrimination and health: scientific advances, ongoing controversies, and emerging issues. *Annual review of clinical psychology*, *11*, 407-440.

Li, L., & Dong, X. (2017). Self-reported Discrimination and Depressive Symptoms Among Older Chinese Adults in Chicago. *Journals of Gerontology Series A: Biomedical Sciences and Medical Sciences, 72*(Suppl1), S119-S124.

Li, S. H., & Graham, B. M. (2017). Why are women so vulnerable to anxiety, trauma-related and stress-related disorders? The potential role of sex hormones. *The Lancet Psychiatry*, *4*(1), 73-82.

Lie, B. (2002). A 3-year follow-up study of psychosocial functioning and general symptoms in settled refugees. Acta Psychiatrica Scandinavica, 106(6), 415-425.

Logie, C., James, L., Tharao, W., & Loutfy, M. (2013). Associations between HIV-related stigma, racial discrimination, gender discrimination, and depression among HIV-positive African, Caribbean, and Black women in Ontario, Canada. *AIDS patient care and STDs*, *27*(2), 114-122.

Matanov, A., Giacco, D., Bogic, M., Ajdukovic, D., Franciskovic, T., Galeazzi, G. M., ... & Priebe, S. (2013). Subjective quality of life in war-affected populations. BMC public health, 13(1), 624.

Matheson, K., Foster, M. D., Bombay, A., McQuaid, R. J., & Anisman, H. (2019). Traumatic experiences, perceived discrimination, and psychological distress among members of various stigmatized groups. *Frontiers in psychology*, *10*, 416.

Mayor, E. (2015). Gender roles and traits in stress and health. *Frontiers in psychology*, *6*, 779.

McHugo, G. J., Caspi, Y., Kammerer, N., Mazelis, R., Jackson, E., Russell, L., ... & Kimerling, R. (2005). The assessment of trauma history in women with co-occurring substance abuse and mental disorders and a history of interpersonal violence. *The journal of behavioral health services & research*, *32*(2), 113-127.

McLean, C. P., Asnaani, A., Litz, B. T., & Hofmann, S. G. (2011). Gender differences in anxiety disorders: prevalence, course of illness, comorbidity and burden of illness. *Journal of psychiatric research*, *45*(8), 1027-1035.

McCabe, S. E., Bostwick, W. B., Hughes, T. L., West, B. T., & Boyd, C. J. (2010). The relationship between discrimination and substance use disorders among lesbian, gay, and bisexual adults in the United States. *American journal of public health*, *100*(10), 1946-1952.

Mersky, J. P., Janczewski, C. E., & Nitkowski, J. C. (2018). Poor mental health among low-income women in the US: The roles of adverse childhood and adult experiences. *Social Science & Medicine*, *206*, 14-21

Mollica, R. F., McInnes, K., Sarajlić, N., Lavelle, J., Sarajlić, I., & Massagli, M. P. (1999). Disability associated with psychiatric comorbidity and health status in Bosnian refugees living in Croatia. Jama, 282(5), 433-439.

Moradi, B., & Risco, C. (2006). Perceived discrimination experiences and mental health of Latina/o american persons. *Journal of Counseling Psychology, 53*(4), 411-421.

Mouzon, D. M., Taylor, R. J., Woodward, A. T., & Chatters, L. M. (2017). Everyday racial discrimination, everyday non-racial discrimination, and physical health among African-Americans. *Journal of ethnic & cultural diversity in social work*, *26*(1-2), 68-80.

Nolen-Hoeksema, S. (2001). Gender differences in depression. *Current directions in psychological science*, *10*(5), 173-176.

Norredam, M., Garcia-Lopez, A., Keiding, N., & Krasnik, A. (2009). Risk of mental disorders in refugees and native Danes: a register-based retrospective cohort study. Social psychiatry and psychiatric epidemiology, 44(12), 1023-1029.

Pascoe, E. A., & Smart Richman, L. (2009). Perceived discrimination and health: a meta-analytic review. *Psychological bulletin*, *135*(4), 531.

Paradies, Y. (2006). A systematic review of empirical research on self-reported racism and health. *International journal of epidemiology*, *35*(4), 888-901

Piccinelli, M., & Wilkinson, G. (2000). Gender differences in depression: Critical review. *The British Journal of Psychiatry*, *177*(6), 486-492.

Plante, T. G., Simicic, A., Andersen, E. N., & Manuel, G. (2002). Stress and coping among displaced Bosnian refugees: An exploratory study. International Journal of Stress Management, 9(1), 31-41.

Riecher-Rössler, A. (2017). Sex and gender differences in mental disorders. *The Lancet Psychiatry*, *4*(1), 8-9.

Pérez, D. J., Fortuna, L., & Alegria, M. (2008). Prevalence and correlates of everyday discrimination among US Latinos. *Journal of community psychology*, *36*(4), 421-433.

Huebner, D. M., Rebchook, G. M., & Kegeles, S. M. (2004). Experiences of harassment, discrimination, and physical violence among young gay and bisexual men. *American Journal of Public Health*, *94*(7), 1200-1203.

Paradies, Yin, Jehonathan Ben, Nida Denson, Amanuel Elias, Naomi Priest, Alex Pieterse, Arpana Gupta, Margaret Kelaher, and Gilbert Gee. "Racism as a determinant of health: a systematic review and meta-analysis." *PloS one* 10, no. 9 (2015).

Pilver, C. E., Desai, R., Kasl, S., & Levy, B. R. (2011). Lifetime discrimination associated with greater likelihood of premenstrual dysphoric disorder. *Journal of Women's Health*, *20*(6), 923-931.

Radloff, L.S. 1977. "The CES-D Scale: A self-report depression scale for research in the general population." *Applied Psychology Measurement, 1(3), 385-401.*

Richman, L. S., & Zucker, A. N. (2019). Quantifying intersectionality: an important advancement for health inequality research. *Social Science & Medicine*, *226*, 246-248.

Robinson, E., Sutin, A., & Daly, M. (2017). Perceived weight discrimination mediates the prospective relation between obesity and depressive symptoms in US and UK adults. *Health Psychology*, *36*(2), 112.

Roberts, R.E., and Vernon, S.W. 1983. "The center for epidemiologic studies depression scale: Itsuse in a community sample." *American Journal of Psychiatry, 140(1), 41-46.*

Rodriguez, E., Frongillo, E. A., & Chandra, P. (2001). Do social programs contribute to mental well-being? The long-term impact of unemployment on depression in the United States. *International Journal of Epidemiology*, *30*(1), 163-170.

Romito, P., Turan, J. M., & De Marchi, M. (2005). The impact of current and past interpersonal violence on women's mental health. *Social science & medicine*, *60*(8), 1717-1727.

Ryff C, Almeida D, Binkley N, Carr D, Coe C, Davidson R. et al. National Survey of Midlife Development in the United States (MIDUS Refresher), 2011–2014. Ann Arbor, MI: Interuniversity Consortium for Political and Social Research; 2016. ICPSR36532-v2

Salk, R. H., Hyde, J. S., & Abramson, L. Y. (2017). Gender differences in depression in representative national samples: meta-analyses of diagnoses and symptoms. *Psychological bulletin*, *143*(8), 783.

Schmitt, M. T., Branscombe, N. R., & Postmes, T. (2003). Women's emotional responses to the pervasiveness of gender discrimination. *European Journal of Social Psychology*, *33*(3), 297-312.

Schmitt, M. T., Branscombe, N. R., Postmes, T., & Garcia, A. (2014). The consequences of perceived discrimination for psychological well-being: A meta-analytic review. *Psychological bulletin*, *140*(4), 921.

Schulz, A. J., Gravlee, C. C., Williams, D. R., Israel, B. A., Mentz, G., & Rowe, Z. (2006). Discrimination, symptoms of depression, and self-rated health among African American women in Detroit: results from a longitudinal analysis. *American journal of public health*, *96*(7), 1265-1270

Scheim, A. I., & Bauer, G. R. (2019). The Intersectional Discrimination Index: development and validation of measures of self-reported enacted and anticipated discrimination for intercategorical analysis. *Social Science & Medicine*, *226*, 225-235.

Seedat, S., Scott, K. M., Angermeyer, M. C., Berglund, P., Bromet, E. J., Brugha, T. S., ... & Karam, E. G. (2009). Cross-national associations between gender and mental disorders in the World Health Organization World Mental Health Surveys. *Archives of general psychiatry*, *66*(7), 785-795.

Sternthal, M. J., Slopen, N., & Williams, D. R. (2011). Racial disparities in health: The impact of multi-dimensional measures of race/ethnicity on the self-reported health status of Latinos. *Bois Rev Soc Sci Res Race*, *8*(1), 95-113.

Stepanikova, I., Bateman, L. B., & Oates, G. R. (2017). Systemic inflammation in midlife: race, socioeconomic status, and perceived discrimination. *American journal of preventive medicine*, *52*(1), S63-S76.

Spielberger, C. D. (1983). Manual for the state–trait anxiety inventory (Form Y) ("Self-evaluation questionnaire"), Consulting Psychologists Press, Palo Alto, CA.

Spielberger, C. D. (1989). State–trait anxiety inventory: a comprehensive bibliography. , ConsultingPsychologists Press, Palo Alto, CA.

Stuber, J., Galea, S., Ahern, J., Blaney, S., & Fuller, C. (2003). The association between multiple domains of discrimination and self-assessed health: a multilevel analysis of Latinos and blacks in four low-income New York City neighborhoods. *Health Services Research*, *38*(6p2), 1735-1760.

Sutin, A. R., Stephan, Y., & Terracciano, A. (2015). Weight discrimination and risk of mortality. *Psychological science*, *26*(11), 1803-1811.

Swisher, R. R., & Shaw-Smith, U. R. (2015). Paternal incarceration and adolescent well-being: Life course contingencies and other moderators. *The Journal of criminal law & criminology*, *104*(4).

Thompson, V. L. S., Noel, J. G., & Campbell, J. (2004). Stigmatization, discrimination, and mental health: The impact of multiple identity status. *American Journal of Orthopsychiatry*, *74*(4), 529-544.

Turner, R. J., & Wheaton, B. (1995). Checklist measurement of stressful life events. *Measuring stress: A guide for health and social scientists*, 29-58.

Umaña-Taylor, A. J., & Updegraff, K. A. (2007). Latino adolescents' mental health: Exploring the interrelations among discrimination, ethnic identity, cultural orientation, self-esteem, and depressive symptoms. *Journal of adolescence*, *30*(4), 549-567.

Wallace, S., Nazroo, J., & Bécares, L. (2016). Cumulative effect of racial discrimination on the mental health of ethnic minorities in the United Kingdom. *American Journal of Public Health*, *106*(7), 1294-1300.

Zuo, B., Zhang, X., Wen, F. F., & Zhao, Y. (2020). The influence of stressful life events on depression among Chinese university students: Multiple mediating roles of fatalism and core self-evaluations. *Journal of affective disorders*, *260*, 84-90.

Veenstra, G. (2013). The gendered nature of discriminatory experiences by race, class, and sexuality: A comparison of intersectionality theory and the subordinate male target hypothesis. *Sex roles*, *68*(11-12), 646-659.

Wallace, S., Nazroo, J., & Bécares, L. (2016). Cumulative effect of racial discrimination on the mental health of ethnic minorities in the United Kingdom. *American Journal of Public Health*, *106*(7), 1294-1300.

Weltz, S. M., Armeli, S., Ford, J. D., & Tennen, H. (2016). A daily process examination of the relationship between childhood trauma and stress-reactivity. *Child Abuse & Neglect*, *60*, 1-9.

Williams, D. R., & Mohammed, S. A. (2009). Discrimination and racial disparities in health: evidence and needed research. *Journal of behavioral medicine*, *32*(1), 20-47.

Williams, S. L., Williams, D. R., Stein, D. J., Seedat, S., Jackson, P. B., & Moomal, H. (2007). Multiple traumatic events and psychological distress: the South Africa stress and health study. *Journal of traumatic stress*, *20*(5), 845-855.

Williams, D. R., Yu, Y., Jackson, J. S., & Anderson, N. B. (1997). Racial differences in physical and mental health: Socio-economic status, stress an discrimination. *Journal of health psychology*, *2*(3), 335-351.

Chapter 5

Hammarström, A., Johansson, K., Annandale, E., Ahlgren, C., Aléx, L., Christianson, M., ... & Gustafsson, P. E. (2014). Central gender theoretical concepts in health research: the state of the art. *J Epidemiol Community Health*, *68*(2), 185-190.

Krieger, N. (2003). Genders, sexes, and health: what are the connections—and why does it matter?. *International journal of epidemiology*, *32*(4), 652-657.

Phillips, S. P. (2008). Measuring the health effects of gender. *Journal of Epidemiology & Community Health*, *62*(4), 368-371.

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EDUCATION

2005-2007 Master of Social Work, College of Social Work
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2003-2004 Martin School of Public Policy and Administration University of Kentucky
Completed 1 year of graduate coursework in Public

1991- 1996 B.A. in Sociology West University of Timisoara (Romania): College of Sociology and Psychology

PEER-REVIEWED PUBLICATIONS

Choi, M., Brownell, P., & Moldovan, S. I. (2015). International movement to promote human rights of older women with a focus on violence and abuse against older women. International Social Work, 0020872814559562.

Badger, K.L., Clark, A., Royse, D., Fisherkeller, S., & Peterson, P., (April 2015). Evaluation of the impact of a day program on social comfort and self-concept of children and teens: A pilot study. American Burn Association 47th Annual Meeting, Chicago, Ill.

Choi, M., & Moldovan, S. I. (2014). Social Insurance and Social Justice: Social Security, Medicare and the Campaign Against Entitlements, edited by Leah Rogne, Carroll L. Estes, Brian R. Grossman, Brooke A. Hollister, and Erica Solway, Journal of Gerontological social work, 57(1), 72-74.

Cook-Craig, P. G., Craig, C. D., Sossou, M., Moldovan, S., Ojha, A., & Redmon, M. (2010). The process of developing an innovative teaching strategy for promoting international social work. Journal of Global Social Work Practice, 3(2), 1-13.

TEACHING EXPERIENCE

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2019- present Program evaluator CHES- Solutions Group, Lexington KY
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