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A Framework for Understanding Poverty among Refugees in the United States

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A FRAMEWORK FOR UNDERSTANDING POVERTY AMONG REFUGEES IN THE UNITED STATES

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To: Dean Tomás R. Guilarte
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This dissertation, written by Mitra Ahmadinejad, and entitled A Framework for Understanding Poverty among Refugees in the United States, having been approved in respect to style and intellectual content, is referred to you for judgment.

We have read this dissertation and recommend that it be approved.

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DEDICATION

To all refugees.

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ABSTRACT OF THE DISSERTATION

A FRAMEWORK FOR UNDERSTANDING POVERTY AMONG REFUGEES IN THE UNITED STATES

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Through a set of three interconnected studies, this dissertation proposes a multidimensional poverty framework for adult refugees with focus on their first five years in the United States. In the first study, refugee poverty was quantified using the 2016 Annual Survey of Refugees (ASR) dataset. Receiver operating characteristic (ROC) curves were used to calculate optimal cut-off points for income levels maximizing the sensitivity and specificity of the multidimensional poverty index utilized in the study. Guided by Ager and Strang's (2008) refugee integration framework and using the 2016 ASR dataset, the second study explored factors associated with poverty. Using three data sources (a systematic review of the literature, qualitative data collected through interviews with key informants, and quantitative data from the 2016 ASR), the third study, further explored factors associated with poverty and proposed a multidimensional poverty framework.

Results revealed high rates of poverty among refugees. The ROC analysis confirmed that income is not an accurate predictor of multidimensional poverty. English language proficiency found to be the best predictor of poverty. In the proposed

multidimensional poverty framework, refugees' income poverty and their deprivation in education, health, and housing were linked to: 1 demographic characteristics (i.e. sex and ethnicity of the head of the households), 2) policy characteristics (i.e. current resettlement policies), 3) host-related characteristics (i.e. discrimination and lack of access to transportation), and 4) non-economic aspects of refugees' adaptation (i.e. lack of English language proficiency and lack of social connections).

The findings call for further attention to the problem of poverty among refugees. Specific attention should be given to more at-risk groups to experience poverty in service provision. Resettlement policies should be reevaluated as these policies seemed to be an important impediment for adult refugees to rise above poverty. The social work profession emerged as a response to the problem of poverty and helping the poor has remained a part of the mandate of the profession. Therefore, findings of this study have important implications for the social work profession. Moreover, findings of the study contribute to the limited literature on poverty among refugees and factors associated with this problem.

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Chapter I: Introduction

The social work profession emerged as a response to the problem of poverty and addressing this problem has remained a core component of the profession (Krumer-Nevo, Weiss-Gal, & Monnickendam, 2009; Popple & Reid, 1999). Poverty is a challenge that has a formative impact (Habib et al., 2014; Tanumihardjo et al., 2007). For instance, experiencing childhood poverty is associated with greater exposure to stressors and can lead to a decreased life span (Chetty et al., 2016). Moreover, poverty can become chronic and affect subsequent generations (Vu, 2010). Poverty is a well-studied problem, listed as the first global challenge to be addressed under the United Nations Sustainable Development Goals (SGDs), which has been recognized and adopted by 193 member states around the world, including the United States (United Nations Development Programme [UNDP], 2015).

Worldwide, refugees are one of the most at-risk groups to experience poverty (Jacobsen, 2005; Potocky & Naseh, 2019). Refugees are forcibly displaced people who have left their home countries based on a well-founded fear of persecution and have crossed an international border in search of safety (UNHCR, 2010). For refugees, leaving home is usually unplanned and abrupt, as the majority escape conflict-affected areas (Potocky & Naseh, 2019). More than two-thirds of the refugees around the world are from only five countries that have been affected by war and conflict for seven years to over five decades: Syrian Arab Republic, Afghanistan, South Sudan, Myanmar, and Somalia (UNHCR, 2019). The abrupt and unplanned nature of the escape for refugees usually leaves them with limited belongings and depleted social networks, which consequently places them at high risk of poverty (Betts, Bloom, Kaplan, & Omata, 2017;

Naseh, Potocky, Burke, & Stuart, 2018). In addition, refugees' opportunities for education and skill learning are usually interrupted by forced migration (Dryden-Peterson, 2011). Moreover, many of their acquired skills or educational certificates might not be recognized or might be undervalued in their new countries (Jacobsen, 2005). Consequently, many refugees experience deprivation in education after arrival to safety. Furthermore, lack of familiarity with the language and navigating the systems of their new countries together with stigma and discrimination can result in deprivation in other aspects of refugees' lives (Ekren, 2018; Lukasiewicz, 2017; Mottaghi, 2018).

Poverty is frequently assessed using the monetary approach, accounting for the amount money that one owns or earns (Laderchi, Saith, & Stewart, 2003). This approach has major limitations, which will be discussed in the next chapter. In this set of three interconnected studies, poverty was explored beyond income and wealth to provide a better picture of poverty including deprivations that refugees experience in three dimensions of education, health, and standards of living. Although there are studies (reviewed below) that have explored or reported income poverty using the monetary approach or unidimensional deprivation in one aspect of refugees' lives in the United States, few studies have used the capability approach to poverty or multidimensional indices among refugees. This study is among the first to capture refugee poverty in the United States using the capability approach to poverty and a multidimensional poverty index. Though a set of three interconnected studies, this dissertation aimed to propose a multidimensional poverty framework for adult refugees with a focus on their first five years in the United States.

Using an adjusted version of the global multidimensional poverty index (aMPI) and the 2016 Annual Survey of Refugees (ASR) dataset, the second chapter (the first paper) of this dissertation examines multidimensional poverty among adult refugees within their first five years of arrival to the United States. In the second chapter a multidimensional perspective based on the capability approach to poverty was used to avoid the limitations of the commonly used monetary approach to poverty and provide a more comprehensive picture of deprivations that refugees experience. Furthermore, using receiver operating characteristic (ROC) curves, optimal cut-off points for income levels maximizing the sensitivity and specificity of the aMPI were calculated. Guided by Ager and Strang's (2008) refugee integration framework and using the 2016 ASR quantitative dataset, the third chapter (second paper) explored the factors associated with poverty (income and multidimensional poverty) among adult refugees. Specifically, this chapter analyzed associations between refugees' poverty and English language proficiency, length of residency, and application for permanent residency. Using three data sources including: 1) retrieved empirical studies on factors associated with poverty through a systematic review of the literature, 2) qualitative data collected through semi-structured interviews with key informants (n= 10), and 3) quantitative data of the 2016 ASR, the fourth chapter of the dissertation (third study), further explored associated factors with poverty among adult refugees and proposed a multidimensional poverty framework for refugees within the first five years of their arrival in the United States.

Overview of the Literature

Refugee Resettlement System in the United States

The refugee resettlement system in the United States comprises governmental and non-governmental refugee-serving organizations involved in the admission, placement, and resettlement of refugees. Following the Homeland Security Act of 2002, the U.S. Citizenship and Immigration Services (USCIS), a federal agency within the Department of Homeland Security (DHS), assumed responsibility for issues pertaining to refugees and asylees (Potocky & Naseh, 2019). The Bureau of Population, Refugees, and Migration (PRM), a federal agency within the State Department, is another major government agency responsible for services concerning refugees. This agency administers the initial reception and placement of refugees through referrals from the United Nations High Commissioner for Refugees (UNHCR) and in some cases through other procedures, for instance, family reunification (Potocky & Naseh, 2019).

In the process of resettlement, UNHCR is usually the organization that collects required documents and refugees' biographical information in the countries where refugees first arrive. This information is shared with the State Department's Resettlement Support Centers (RSCs) to start the resettlement process. The RSCs are responsible for conducting in-depth interviews with refugees, entering their documents into the Department of State's Worldwide Refugee Admission Processing System (WRAPS), verifying the collected information, and sending the required information to other agencies including but not limited to FBI, National Counterterrorism Center, and Department of Defense for background and security checks (U.S. Department of State, 2016a). Results of the background and security checks are reviewed by the DHS followed

by another interview for collecting biometric data (U.S. Department of State, 2016a). The data collected in each interview is added to and checked against the information available through WRAPS (U.S. Department of State, 2016a). Any discrepancies in the process can result in rejection of an application. If any new information emerges, additional interviews are conducted by the DHS together with additional security checks (U.S. Department of State, 2016a).

Following an approval from the DHS, refugees must complete a cultural orientation class and undergo required medical screenings to avoid possible risks to public health (U.S. Department of State, 2016a). After this stage information about each case (individual cases or families) are shared and reviewed at the weekly meetings of the domestic resettlement agencies to determine the state in which the refugees will resettle. There are currently nine resettlement agencies in the United States. These agencies are non-governmental organizations that are funded by the Department of State to resettle refugees (U.S. Department of State, 2016b). The process of resettlement takes around two years or more, during which refugees usually remain in their country of first asylum (Potocky & Naseh, 2019).

The PRM contracts with private, non-profit resettlement agencies to provide pre-departure assistance, which usually includes determining if refugees have family members in the United States to reunite with, recording basic information of the family members and special needs that they might have, and a decision about where to resettle the refugees (Singer & Wilson, 2006). Initial reception and placement assistance usually includes welcoming refugees at the arrival airport and covering the cost of the basic needs for 30 days after their arrival in the United States (Potocky & Naseh, 2019).

Once refugees arrive in the United States, they are eligible to receive assistance up to ninety days through the State Department's Reception and Placement Program (Potocky & Naseh, 2019). After this period, many refugees are eligible to receive further assistance such as time-limited cash assistance, medical insurance, English language training, and social service assistance up to eight months after arrival from the Department of Health and Human Services Office of Refugee Resettlement (ORR). However, the emphasis of these services is on achieving self-sufficiency in the shortest possible period of time (Potocky & Naseh, 2019).

In addition to these tailored services, refugees might also receive help from mainstream organizations or ethnic agencies. Mainstream organizations are public or private organizations that may or may not serve refugees exclusively and include but are not limited to medical or health centers, hospitals, child welfare agencies, schools, and family service agencies (Potocky & Naseh, 2019). Ethnic agencies are agencies serving certain ethnic populations; refugees might prefer their services due to shared ethnic identity (Potocky & Naseh, 2019).

Poverty and Deprivation among Refugees in the United States

A recent report published by the Migration Policy Institute based on American Community Survey data suggests that more than 50% of refugees from Bhutan, Burma, Iraq, Liberia, and Somalia were in low-income households in 2009 and 2011, meaning that they had income levels below 200% of the federal poverty lines (Capps, Newland, Fratzke, Groves, Auclair, Fix, & McHugh, 2015). This rate was 56% for refugees from Cuba and 35% for refugees from Vietnam in a similar period of time (Capps et al., 2015). Smaller scale studies also affirm high rates of income poverty among various groups of

refugees (Bonet, 2016; Hadley, Patil, & Nahayo, 2010; Miller et al., 2002). For instance, in a study of food insecurity among 281 refugees who resettled in Midwestern cities in the United States, around 25% of the sample reported income levels lower than USD 500 per month for their households and around 52% stated that they had experienced running out of food before having money to purchase more (Hadley et al., 2010). Similarly, in a qualitative study among a sample of 28 Bosnian refugees in Chicago, Miller and colleagues (2002) found evidence of lack of adequate income and access to proper housing among the majority of refugees in their sample (Miller et al., 2002). High rates of unemployment (65%) and living in overcrowded housing were also reported among Iraqi refugees living in Michigan and Missouri (Jamil et al., 2012; Yako & Biswas, 2014). Alexander (2014) reported evidence of income poverty, homelessness, and unemployment among refugees receiving services from a community center in Phoenix, Arizona. Although Alexander's (2014) dissertation was primarily focused on unaccompanied minors from Sudan, she reported that different groups of refugees that she met at the community center had to work multiple jobs at minimum wage to be able to afford a living.

The limited published studies on refugees' education and standards of living within their first five years of arrival to the United States suggest high rates of poverty and deprivation (Alexander, 2014; Alnaeemi, 2018; Bonet, 2016; Capps et al., 2015; Miller, Worthington, Muzurovic, Tipping, & Goldman, 2002; Potocky & Naseh, 2019). A larger body of literature on health deprivation among refugees in the United States similarly suggests high rates of poverty and deprivation, specifically in terms of mental

health problems (Alhassani, 2018; Ao et al., 2016; Craig, Sossou, Schnak, & Essex, 2008; Javanbakht et al., 2019; Kumar et al., 2014; Taylor et al., 2014).

Regarding education, much of the available literature is focused on primary education for refugee children. Only limited studies have reviewed educational attainment and skill learning among adult refugees after resettlement in the United States (Felix, 2016). Educational attainment among refugees usually varies by country and region of their origin (Potocky & Naseh, 2019). Evidence suggests that refugees who arrive in the United States as children under the age of 15 have similar educational attainment as the general population in the country; however, those who arrive as adults tend to have lower educational attainment (Evans & Fitzgerald, 2017). The 2016 Annual Survey of Refugees (the dataset that is used in papers 1 and 2 of this dissertation) found that 13% of adult refugees had a college or university degree and around 32% had a high school or technical degree upon arrival to the United States (U.S. Office of Refugee Resettlement, 2018). However, only 16% of adult refugees continued their education after arrival to the country (U.S. Office of Refugee Resettlement, 2018). Most refugees experienced interruption in their education after forced displacement and filling the gap in their educational attainment requires time and financial resources. Many refugees never get a chance to continue their education after resettlement in the United States as they have to work multiple jobs to afford a living with no spare time and money to invest in their education (Abdul-Razaq, 2017; Potocky & Naseh, 2019).

In terms of health, mental health challenges caused by previous experiences of trauma and acculturation stress among refugees are well-documented in the literature (Alasagheirin & Clark, 2018; Betancourt et al., 2012; Ellis, Lhewa, Charney, & Cabral,

2006; Hinton, Nickerson, & Bryant, 2011; Kinzie et al., 2008; Kumar et al., 2014; Potocky & Naseh, 2019). Various studies have reported high rates of mental health problems including depression (between 67.1% and 15%), anxiety (between 60% and 19%), and posttraumatic stress disorder (PTSD, between 84% and 4.5 %) among different groups of Bosnian (Craig et al., 2008), Bhutanese (Ao et al., 2016; Kumar et al., 2014; Vonnahme, Lankau, Ao, Shetty, & Cardozo, 2015), Cambodian (Hinton et al., 2006, 2011; Marshall, Schell, Elliott, Berthold, & Chun, 2005), Iraqi (Alhassani, 2018; Taylor et al., 2014), Kurdish (Cummings, Sull, Davis, & Worley, 2011), Somali (Ellis et al., 2006), Sudanese (Alexander, 2014), and Syrian (Alhassani, 2018; Javanbakht et al., 2019; M'zah, Lopes Cardozo, & Evans, 2019) refugees in the United States. Moreover, high rates of suicide (0.3%) and suicidal ideation (3.0 %) were reported among representative samples of resettled Bhutanese refugees in the country (Ao et al., 2016; Cochran et al., 2013).

Moreover, chronic health conditions and poor physical health status have also been reported in various studies on different groups of refugees in the United States (Bhatta, Shakya, Assad, & Zullo, 2015; Kinzie et al., 2008; Taylor et al., 2014). In a study comparing chronic health conditions among representative samples of adult refugees and immigrants, results showed that refugees were more likely to report at least one chronic condition and reported significantly higher rates of arthritis, heart disease, stroke, and activity-limitation due to pain (Yun, Fuentes-Afflick, & Desai, 2012). In a study of 180 refugees in the urban Northeast, 51.1% of the sample had at least one chronic non-communicable disease and 54.6% of adults were overweight or obese (Yun et al., 2012). Similarly, in a study by Taylor and colleagues (2014), 60% of the

interviewed Iraqi refugees reported having at least one chronic health condition and in a study by Bhatta (2014), 64.8 % of the Bhutanese women were overweight or obese. By considering an association between trauma experiences and physical problems, Kinzie and colleagues (2008) found high prevalence rates of hypertension (42%) and diabetes (15.5%) among Vietnamese, Cambodian, Somali, and Bosnian refugee psychiatric patients. High rates of diabetes (14% and 27.6% respectively) and hypertension (23% and 47.9% respectively) were also reported among Bhutanese and Cambodian refugees in other studies (Bhatta et al., 2015; Kumar et al., 2014; Marshall et al., 2016). Higher risk of osteoporosis, diabetes, and cardiovascular disease were also reported among Sudanese refugees due to low bone mass, low muscle mass, and food insecurity in childhood (Alasagheirin & Clark, 2018). Moreover, a study on resettled refugees in Kentucky suggested evidence of higher risks of infectious diseases, such as latent tuberculosis infection, hepatitis B, and hepatitis C due to lack of immunity to vaccine-preventable diseases among this population (Carrico et al., 2017).

Structural barriers such as high cost of healthcare (Taylor et al., 2014; Wong et al., 2006), lack of access to healthcare or inadequate health insurance (Johnson-Agbakwu, Allen, Nizigiyimana, Ramirez, & Hollifield, 20141110; Mirza et al., 2014; Taylor et al., 2014), language barriers (Berthold et al., 2014; Mirza et al., 2014; Nies, Lim, Fanning, & Tavanier, 2016; Taylor et al., 2014; Vonnahme et al., 2015; Wong et al., 2006), lack of access to transportation (Berthold et al., 2014; M'zah et al., 2019; Taylor et al., 2014; Wong et al., 2006), discrimination (Kim, 2016; Nazzal, Forghany, Geevarughese, Mahmoodi, & Wong, 2014), and lack of familiarity with the healthcare system (Mirza et al., 2014; Nies et al., 2016; Pace, Al-Obaydi, Nourian, & Kamimura,

2015; Taylor et al., 2014) are among reported barriers to healthcare access among refugees in the United States. There is also evidence suggesting that high levels of trauma symptoms among refugees could be associated with chronic health conditions and underutilization of healthcare services (Kinzie et al., 2008; Wagner et al., 2013).

Some studies have demonstrated evidence suggesting that high rates of poverty among refugees are partly the result of resettlement policies in the United States (Bonet, 2016; Brown & Scribner, 2014). In an ethnographic study of four Iraqi refugee families, Bonet (2016) found that refugees are usually pushed into immediate employment at minimum wage and with no health benefits by the resettlement system to avoid homelessness shortly after their arrival to the United States. Bonet (2016) reported that in one of the interviews, a service provider stated that "we [refugee resettlement agencies] are resettling them [refugees] into poverty… they [refugees] are going to become a part of the American poor" (p. 122). Literature suggests associations between refugees' poverty and lack of access to transportation (Blumenberg, 2008; Bose, 2014), limited English proficiency (Alnaeemi, 2018; Blumenberg, 2008; Jamil et al., 2012; Yako & Biswas, 2014), and lack of familiarity with the work force system (Alnaeemi, 2018). Social support, specifically help from community members, seems to moderate the negative impact of lack of access to transportation and limited English proficiency on refugees' income and employment (Jamil et al., 2012; Mitschke, Mitschke, Slater, & Teboh, 2011).

Significance of the Studies

The global population of refugees reached the record-high number of 25.9 million individuals by the end of 2018 mainly due to ongoing and unresolved conflicts around the

world (UNHCR, 2019). According to the United States Council on Foreign Relations, currently 26 conflicts are ongoing around the world, all of which are worsening or unchanged (Council on Foreign Relations, 2020). This means that more individuals will be forced into displacement and the population of refugees will continue to rise in coming years. However, limited studies have been conducted on the welfare of the ever-growing population of refugees, specifically on their poverty and factors associated with this problem. This set of studies is the first to explore the problem of poverty from the capability perspective among adult refugees within their first five years of arrival to the United States (before qualifying to apply for naturalization) and to propose a multidimensional poverty framework for this population. In this context, the studies bring attention to the limitations of the monetary approach to poverty and encourage social workers in the United States to use more comprehensive indices such as the index used in these studies, the Adjusted Multidimensional Poverty Index (aMPI), to explore deprivations that refugees experience. Moreover, the findings of these studies on factors associated with poverty and the proposed multidimensional poverty framework have important implications for social workers in planning and conducting short-term and long-term poverty reduction strategies for refugees.

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Chapter II: Refugee Poverty in the United States

Abstract

This study is among the first to calculate refugee poverty in the United States using the capability approach. The concept is novel as it avoids the limitations of the monetary approach to poverty and provides a more comprehensive perspective on poverty. Using the 2016 Annual Survey of Refugees (n= 1,500 households) and an adjusted version of the global Multidimensional Poverty Index (aMPI), refugees' multidimensional poverty in education, health, and standards of living were calculated and rates of income poverty and multidimensional poverty were compared. Moreover, receiver operating characteristic (ROC) curves were used to calculate the optimal cut-off points for income levels maximizing the sensitivity and specificity of the aMPI. Findings showed high rates of poverty among refugees: over 60% of the households, were multidimensionally poor and over 20% were income poor. Moreover, the contingency table and ROC analyses affirmed that income is not a good indicator to distinguish multidimensionally poor households from non-poor. The findings of the study call for further attention to poverty reduction strategies and more caution in the interpretation of income poverty rates among refugees.

Introduction

By the end of 2018, one in every 250 human beings was either recognized as a refugee or was an asylum seeker seeking refuge in another country (UNHCR, 2019). The main reason for the forced displacement of refugees is war and conflict (Naseh et al., 2018). According to the United States Council on Foreign Relations Global Conflict Tracker, all current ongoing conflicts around the world are worsening or unchanged

(Council on Foreign Relations, 2020). Consequently, more people will be forced to flee conflict-affected areas in the future, adding to the population of refugees.

Each year, the president of the United States sets a ceiling for the maximum number of refugees that may be admitted in a fiscal year (Potocky & Naseh, 2019). This ceiling has fluctuated in past years, affected by the country's policies and global events. On average 67,100 refugees were admitted to the country between 2008 and 2017 (Krogstad, 2019); however, under the new administration, the ceiling was drastically decreased to only 18,000 in 2020 (Krogstad, 2019; Potocky & Naseh, 2019). Moreover, refugee admission process in the United States was suspended temporary in 2017 following the Protecting the Nation from Foreign Terrorist Entry into the United States Executive Order, known as Travel Ban. After numerous legal challenges the third version of this Executive Order (Executive Order 13780), which is currently in place, put further requirement for refugees vetting process and bans entry of refugees from Iran, Libya, North Korea, Syria, Yemen, and Somalia except with waiver on a case-by-case basis (ACLU, 2020; NAFSA, 2020). Recently, in light of the coronavirus pandemic refugee resettlement is once more temporary suspended (Chishti & Pierce, 2020).

Despite the decrease in new arrivals and temporary suspensions, it is likely that the ceiling for admissions may increase in future years as a result of the continuing conflicts worldwide. Even if the ceiling remains at the current number, 18,000 refugees per fiscal year is still a considerable population. Social workers as the front-line service providers will continue to work with new arrivals and refugees who have already arrived and are facing poverty and deprivation.

As the majority of refugees flee war or conflict-affected areas, they frequently escape with limited assets (Jacobsen, 2005; Potocky & Naseh, 2019). Often, they spend their last resources on paying smugglers to reach safety (Jacobsen, 2005) and arrive to host countries with limited to no belongings. Lack of assets together with many other factors including racial and cultural discrimination, physical or mental harms caused by forced displacement, lack of familiarity with the language, interrupted education due to displacement, and under-evaluation of skills in host countries can isolate refugees and result in poverty in different aspects of their lives (Ekren, 2018; Lewig et al., 2010; Potocky & Naseh, 2019; Zetter & Ruaudel, 2018).

The most commonly used method for calculating poverty and separating poor, those in need of assistance, from non-poor, those usually not qualifying to receive limited resources for help, is the monetary approach to poverty. This approach to poverty was introduced by Booth (1887) and Rowntree (1901) in the 19th and early 20th centuries and has remained the most convenient method for researchers, as it relies on widely available data on expenditures or income (Booth, 1887; Laderchi et al., 2003; Rowntree, 1901). In the monetary approach to poverty, households or individuals are labeled as poor if their income or expenditures are lower than pre-defined poverty lines (Haughton & Khandker, 2009). Although the monetary approach to poverty is a popular method, it has at least two major limitations associated with using money as a proxy to quantify deprivation. The first limitation is the flawed assumption of constant purchasing power of money over time and in different locations. In the monetary approach, defined monetary poverty lines are not constantly adjusted to take account of fluctuating exchange rates and inflation rates (Abu-Ismail et al., 2015). The second major limitation of the monetary approach to

poverty is the flawed assumption that a specific amount of money necessarily equals the fulfillment of specific needs (Laderchi et al., 2003). For instance, a newly arrived refugee family might have to sustain long hours of work to make ends meet, but having an income above the poverty line does not compensate for the missed opportunities of the father to finish high school, chronic disease of the mother, and malnourishment of the children.

Limitations of the monetary approach to poverty can result in false labeling of deprived people as "not poor," which can be critical when access to vital services is defined through this approach. If poverty measures falsely label a deprived refugee as not deprived, the person affected by this false labeling could be pushed to the back of the queue for limited resources.

The capability approach to poverty was introduced in the 1980s by the 1998 Nobel Prize winner in economics, Amartya Sen, in response to the limitations of the monetary approach to poverty (Laderchi et al., 2003). The capability approach explores the ability of individuals or groups to do what they want and be what they want (functioning), based on available opportunities and freedom (Robeyns, 2005). In this context, poverty indices based on the capability approach measure deprivation in different aspects of life using multidimensional indices instead of income or expenditures (Laderchi et al., 2003). However, none of the published studies on refugee poverty in the United States has used this method.

State of Knowledge

Although there is a gap in the literature in using multidimensional poverty indices among refugees in the United States, available data affirm deprivation in health,

education, and standards of living among refugees (Alexander, 2014; Ao et al., 2016; Bonet, 2016; Capps et al., 2015; Javanbakht et al., 2019; Kumar et al., 2014; Taylor et al., 2014). Since previous experiences of traumatic events including war, conflict, and human rights violations are common among refugees many studies have reported mental and physical health challenges among this group (Ao et al., 2016; Cochran et al., 2013; Craig et al., 2008; Crumlish & O'Rourke, 2010; Hinton et al., 2011; Naseh et al., 2019; Potocky & Naseh, 2019; Vonnahme et al., 2015). For instance, in a randomly selected sample of resettled Bosnian refugees, over 66% were diagnosed with posttraumatic stress disorder (PTSD), around 40% had anxiety, and over 30% were in the clinical range for depression (Craig et al., 2008). In another study, around half of the randomly selected resettled Iraqi refugees in Michigan, California, Texas, and Idaho were diagnosed with anxiety and depression and around 31% were found to be at risk of PTSD (Taylor et al., 2014). Similarly, high rates of mental health problems were reported in studies on resettled Kurdish, Somali, Sudanese, and Syrian refugees in the United States (Alexander, 2014; Cummings et al., 2011; Ellis et al., 2006; Javanbakht et al., 2019).

Likewise, many studies reported the existence of chronic health conditions among various groups of refugees in the country (Kinzie et al., 2008; Kumar et al., 2014; Yun et al., 2012). In studies by Yun and colleagues (2012) and Taylor and colleagues (2014), the existence of at least one chronic health condition was reported in over half of the surveyed refugees. In a study among Vietnamese, Cambodian, Somali, and Bosnian refugees attending an intercultural psychiatric program, Kinzie and colleagues (2008) found a high prevalence of hypertension (42%) and diabetes (15.5%). Similar observations of a high prevalence of hypertension (23%), diabetes (14%), and obesity

(52%) were reported in a retrospective study of 66 Nepali Bhutanese refugees who received services from the Grady Refugee Clinic in Atlanta (Kumar et al., 2014).

Evidence of poverty in education and standards of living also exist in the limited published studies on refugees' welfare in the United States (Alexander, 2014; Jamil et al., 2012; Miller et al., 2002). In the 2016 Annual Survey of Refugees (the same dataset used in this study), among adult refugees upon arrival to the country, only 13% had a college or university degree and only 32% had a high school or technical degree (U.S. Office of Refugee Resettlement, 2018). Lack of access to proper housing, living in overcrowded settings, and homelessness among refugees were also reported in studies by Alexander (2014), Jamil and colleagues (2012), and Miller and colleagues (2002).

Conceptual Framework

The conceptual model of this study is grounded in the capability approach to poverty and the person-in-environment framework. Sen (1988, 1999) pioneered the capability approach as a response to limitations of the monetary approach to poverty and his work was further advanced by Nussbaum (1992, 2000, 2003). The capability approach argues that wellbeing is about opportunities that individuals or groups have to live the lives that they have reason to value (Robeyns, 2005). Such opportunities could vary among different people in different societies and could be affected by social values, cultural factors, social class, societal conventions, and customs (Clark, 2005).

The capability approach to poverty fits well with the prominent person-in-environment framework in the social work profession. Like the capability approach, the person-in-environment perspective highlights the importance of understanding individuals and their behaviors in relation to their environment and discusses that

people's lives are shaped and have meaning within their social structures (Cornell, 2006). The person-in-environment framework highlights the role of environmental contexts in individuals' wellbeing and behavior (Kondrat, 2013). Similarly, the capability approach to poverty explores individuals' or groups' capabilities in their environments.

The capability framework as defined by Sen (1988, 1999) is flexible, without a fixed list of capabilities (Clark, 2005). However, during the past decades, several researchers have tried to define a list of capabilities for this approach to create an index (Laderchi et al., 2003). Among the more popular indices based on this approach is the global Multidimensional Poverty Index (MPI). Designed by Alkire and Santos (2010), the MPI calculates poverty based on deprivations in three dimensions of health, education, and standards of living instead of using income or expenditure data (Alkire & Santos, 2010; Oxford Poverty and Human Development Initiative, n.d.).

Purpose of Study

To respond to the current gap in the literature, in this quantitative descriptive study, poverty among refugees was calculated beyond income and wealth. More specifically, based on the capability approach to poverty, poverty was quantified in three dimensions of health, education, and standards of living using an adjusted version of the global Multidimensional Poverty Index (aMPI). The aims of this study were to:

1) determine the income poverty rate and the multidimensional poverty rate (based on deprivations in education, health, and standards of living) of refugees in the United States;
2) and, examine the relationship between the two types of poverty.

Methods

Dataset

The 2016 Annual Survey of Refugees (ASR) dataset was utilized in this study to explore multidimensional poverty among a representative sample of refugees in the United States. The ASR is the only scientifically collected national dataset on refugees' self-sufficiency and integration in the United States and the 2016 version of this dataset has been recently added to the Inter-university Consortium for Political and Social Research (ICPSR) archive (Urban Institute, 2016). The 2016 ASR was collected using a stratified probability sample through a cross-sectional telephone interview survey with refugees who entered the United States between fiscal years 2011 and 2015 (Triplett & Vilter, 2018). This dataset has weighted data on 1,500 refugee households and members of the households who were the ages of 16 and above at the time of data collection (early 2017).

Variables and Operational Definitions

The MPI measures deprivation in three dimensions through 10 indicators (Table 2.1). In the first dimension, education deprivation is measured by two indicators: 1) years of education for adults, and, 2) schooling for children. Similarly, health deprivation is measured by two indicators: 1) malnourishment for adults, and, 2) child mortality. In the third dimension, standards of living, deprivation is measured by six indicators: 1) access to electricity, 2) assets, 3) clean drinking water, 4) improved sanitation, 5) clean cooking fuel, and 6) clean flooring (Jahan et al., 2015).

Table 2.1. MPI and Adjusted Multidimensional Poverty Index (aMPI) for this study

Dimension	MPI		aMPI	
	Indicator	**Poverty line: Deprived if…**	**Modified Indicator**	**Poverty line: Deprived if… (the reason for exclusion)**
Education	School attainment	No household member has completed at least six years of schooling	School attainment	A household member has not completed 11 years of schooling upon arrival in the US and has not attended an educational program in the United States to earn an equivalent degree
	School attendance	A school-age child is not attending school	Excluded	(Not applicable to adults)
Health	Nutrition	A household member is malnourished, as measured by the body mass index for adults and by the height-for-age z-score based on the World Health Organization standards for children under age 5	Modified to: Self-reported health	A household member reported a chronic health condition
				A household member was not able to work due to poor health condition or disability
	Child mortality	A child has died in the household within the five years prior to the survey	Excluded	(Not applicable to adults)
Standard of living	Electricity	Not having access to electricity	Modified to: Enrollment in government assistance programs in the past 12 months	A household member received Food Stamp
	Drinking water	Not having access to clean drinking water or having access to clean drinking water through a source that is located 30 minutes away or more by walking		A household member received Refugee Cash Assistance
	Sanitation	Not having access to improved sanitation facilities or having access only to shared improved sanitation facilities		A household member received Supplemental Security Income
	Cooking fuel	Using "dirty" cooking fuel (dung, wood or charcoal)		A household member received income through General Assistance
	Flooring	Having a home with dirt, sand or dung floor		A household member received Temporary Assistance to Needy Families
	Assets	Not having at least one asset related to access to information or having at least one asset related to information but not having at least one asset related to mobility or at least one asset related to livelihood	Modified to: living in public housing project	Household was living in a housing project at the time of the interview

Source: Jahan et al., (2015)

An adjusted version of the MPI, named aMPI, was used in this study to calculate poverty among adult refugees while accounting for higher standards of living in the United States. Since the dataset used in this study included only adults, MPI indicators exploring poverty among children (i.e. schooling for children and child mortality) were omitted in the aMPI (Table 2.1.). A similar indicator for education deprivation among adults was defined in the aMPI with an adjusted poverty line, 11 years of schooling instead of six years, to reflect the average mandatory education in the United States (National Center for Education Statistics, 2017). Health poverty among adults in the MPI is based on nutrition. However, due to lack of data on nutrition in the dataset for this study, health poverty in the aMPI was defined based on self-reported data on chronic physical or mental health conditions and lack of ability to work due to poor health condition or disability. The MPI indicators in the standards of living domain are either irrelevant to standards of living in the United States (i.e. access to electricity, access to clean drinking water, access to improved sanitation facilities, access to "clean" cooking fuel, and access to "clean" home floor) or unavailable in the dataset (i.e., assets such as access to information, mobility, or livelihood). Therefore, poverty in the standards of living domain in the aMPI was defined based on households' enrollment in government assistance programs in the past 12 months including Food Stamps (currently known as Supplemental Nutrition Assistance Program, but referred to as Food Stamps in the dataset), Refugee Cash Assistance (RCA) program, Supplemental Security Income (SSI), income through General Assistance (GA), and Temporary Assistance to Needy Families (TANF) Program; and living in a public housing project (Table 2.1.).

It is important to note that having a limited income or wealth are part of the eligibility criteria for all the government assistance programs that were explored (i.e. Food Stamps, RCA, SSI, GA, TANF, and public housing) as part of the standards of living domain of the aMPI. This means that to some extent income poverty is incorporated into the aMPI, but not fully as these programs are restricted by time and limited. Moreover, not all income-poor households have information about these programs and not all income poor households are enrolled in these programs.

Multidimensional poverty is a binary variable, separating poor households from non-poor households, and is calculated using the aMPI. The aMPI is a continuous variable calculated based on the sum of the weighted poverty scores in the three dimensions of education, health, and standards of living. Per the MPI definition by Alkire (Alkire & Santos, 2010; Oxford Poverty and Human Development Initiative, n.d.), the three dimensions of education, health, and standards of living were equally weighted in the aMPI as 1/3 or 0.33 and each indicator in these dimensions was also equally weighted (Table 2.2).

The poverty score in the education dimension was represented by transforming individual-level data to household-level data by creating a binary variable. This binary variable was generated at the household level to separate educationally poor and non-poor households. A code of 1 was assigned to this variable if at least one of the adult members of the household had not completed 11 years of schooling upon arrival to the United States and had not attended an educational program in the United States to earn an equivalent degree including a high school certificate, an associate degree, a professional

school degree, a certificate or license program, or a similar degree. A code of 0 was assigned to all other households.

Table 2.2. Dimensions, indicators, deprivation thresholds and weights of the aMPI

Dimension	Indicator	Deprived if…	Relative Weight
Education	School attainment	A household member has not completed 11 years of schooling or equivalent	33%
Health	Self-reported health	A household member reported chronic health condition	16.5%
		A household member was not able to work due to poor health condition or disability	16.5%
Standard of living	Enrollment in government assistance programs in the past 12 months:	A household member received food stamps	5.5%
		A household member was enrolled in the Refugee Cash Assistance (RCA) program	5.5%
		A household member received Supplemental Security Income (SSI)	5.5%
		A household member received income through General Assistance (GA)	5.5%
		A household member was enrolled in the Temporary Assistance to Needy Families (TANF) Program	5.5%
	Living in a public housing project	A household was living in a public housing project at the time of the interview	5.5%

The poverty score in the health dimension was calculated by transforming individual-level data to household-level data and based on the sum of the scores of two equally weighted binary variables in this dimension. The first variable separated households by assigning a code of 1 to those who had at least one member with a chronic health condition and a code of 0 to households who did not report any chronic health conditions. A chronic health condition was defined as a physical, mental, or other health condition that had lasted for six or more months. The second variable in this dimension separated those who had a member unable to work due to a poor health condition or a disability as poor households (code 1) from those who did not report poor health condition or disabilities as a reason for lack of employment as non-poor households (code 0). In the third dimension of the aMPI, deprivation in the standards of living, the poverty

score was calculated based on the sum of the scores of the six equally weighted household-level binary variables. Each of these binary variables separated households who received food stamps, RCA, SSI, income through GA, or TANF in the past 12 months or households who were living in public housing projects at the time of the interview as poor (code 1) from those who did not receive these benefits as non-poor (code 0).

The aMPI was calculated by summing up the deprivation scores in the three dimensions of education, health, and standards of living. Similar to the categorization of the MPI, a binary multidimensional poverty variable was created, and households were classified as poor by a code of 1 if their calculated deprivation score based on the aMPI was 33.3% or greater. A code of 0 was assigned to the multidimensional poverty variable for households that had aMPI score of less than 33.3%.

Table 2.3. 2015 poverty lines for the 48 contiguous states and the District of Columbia

Persons in Family/ Household Size	**Poverty Line (USD)**
1	11,770
2	15,930
3	20,090
4	24,250
5	28,410
6	32,570
7	36,730
8	40,890

Source: U.S. Department of Health & Human Services, 2015

To highlight the limitations of the monetary approach to poverty among refugees, the calculated multidimensional poverty rates were compared with income poverty among refugees. Income poverty was measured by comparing households' income for each household size with the national poverty lines listed in Table 2.3 (U.S. Department

of Health & Human Services, 2015). The annual income of households was calculated by summing the annual earnings of each household member.

Data Analyses

All the descriptive poverty analyses were conducted using Stata version 15 (StataCorp, 2017). Moreover, this software program was used to measure correlations between income and multidimensional poverty using Pearson's chi-square test. SPSS version 25 (IBM Corp., 2017) was used to conduct receiver operating characteristic (ROC) curves analysis. The ROC analysis was used to calculate the optimal income poverty lines for each refugee household size that best discriminate poor- and non-poor households as defined by the binary variable for multidimensional poverty.

Results

Sample Characteristics

The demographic characteristics of the surveyed households are shown in Table 2.4. About one-fifth of the households had lived in the U.S. for up to one year, 44% two to three years, and slightly over one-third three to four years. The majority of the households in the sample had three or more members and were male-headed households. The vast majority of the household heads were of working age (19-60). Most of the refugees in the sample were originally from Burma, Iraq, and Bhutan.

Rates of Income Poverty and Multidimensional Poverty

Around 24% of the refugee households (n= 353) were income poor, that is, their annual household income was less than the defined poverty lines for their household size. Around 66% (n=983) of the households had an aMPI score of 33% or more, meaning that they were multidimensionally poor. Around 34% (n=517) of the households had an aMPI

score of less than 33% and around 23% (n= 348) had deprivation score of 55% and above. Table 2.5. shows the distribution of the aMPI score among the surveyed households.

Table 2.4. Characteristics of the surveyed households

Characteristics	**Subgroups**	**Distribution in percentage (number of households)**
Cohort of arrival in US	2011 to 2012	36.5% (547)
	2013 to 2014	43.6% (654)
	2015	19.9% (299)
Number of household members	1	24.0% (361)
	2	17.1% (257)
	3	16.6% (248)
	4	17.4% (261)
	5 and more	24.8% (372)
Country of birth	Burma	22.93% (344)
	Iraq	21.99% (330)
	Bhutan	15.82% (237)
	Somalia	9.67% (145)
	Other	9.61% (144)
	Cuba	9.23% (138)
	Iran	5.18% (78)
	D. R. of the Congo	3.73% (56)
	Thailand	1.05% (16)
	Nepal	0.68% (10)
	United States	0.06% (1)
	Don't know	0.05% (1)
Age of the head of the household	18 and under	0.5% (5)
	19 - 30	19% (288)
	31- 40	34.5% (516)
	41- 50	20% (299)
	51- 60	11% (170)
	61- 70	5% (78)
	71 and above	10% (144)
Sex of the head of the household	Male	73% (1,096)
	Female	27% (404)

Deprivation in the education dimension was 61%, meaning that 921 refugee households had at least one adult member who did not have at least 11 years of schooling upon arrival to the United States and was not enrolled in an educational program. In the health dimension, around 31% of the households (n= 461) had at least one member with a

chronic health condition and around 21% (n= 320) had a member who was unable to work due to poor health conditions or disabilities.

Table 2.5. Distribution of the aMPI score among the surveyed households

aMPI score	% of households (# of households)
0	14.42% (216)
.055	9.79% (147)
.11	3.80% (57)
.165	2.99% (45)
.22	2.16% (32)
.275	1.29% (19)
.33	13.58% (204)
.385	18.10% (272)
.44	7.82% (117)
.495	2.81% (42)
.55	5.06% (76)
.605	3.08% (58)
.66	3.86 % (31)
.715	3.83% (57)
.77	6.31% (95)
.825	1.73% (26)
.88	0.23% (4)
.9350001	0.14 (2)
Total	**100% (1,500)**

In the standards of living dimension, around 55% (n=827) of refugee households had at least one member who received Food Stamps and around 18% (n= 275) of households had at least one member who received SSI in the past 12 months. Less than five percent of the surveyed households had a member who received RCA, GA, or TANF. Moreover, around 18% (n= 263) of the surveyed households were living in a public housing project at the time of the interview (Table 2.6). Only 18% (n= 326) of the refugees who arrived in the country with less than 11 years of schooling stated that they are enrolled in an educational program in the United States.

Table 2.6. Households' multidimensional poverty in each of the dimensions of the aMPI

Dimension	Indicator	% Poor (# of households)
Education	At least one member had not completed 11 years of schooling and had not been enrolled in an educational program	61% (921)
Health	At least one member reported a chronic health condition	31% (461)
	At least one member was unable to work due to health or disability	21% (320)
Standard of living (in the past 12 months)	At least one member received food stamps	55% (827)
	At least one household member received RCA	4% (54)
	At least one household member received SSI	18% (275)
	At least one member received income through GA	2% (26)
	At least one household member received TANF	5% (70)
	A household was living in a public housing project	18% (263)

Note: GA= General Assistance; RCA= Refugee Cash Assistance; SSI= Supplemental Security Income TANF= Temporary Assistance to Needy Families;

Relationship between Income Poverty and Multidimensional Poverty

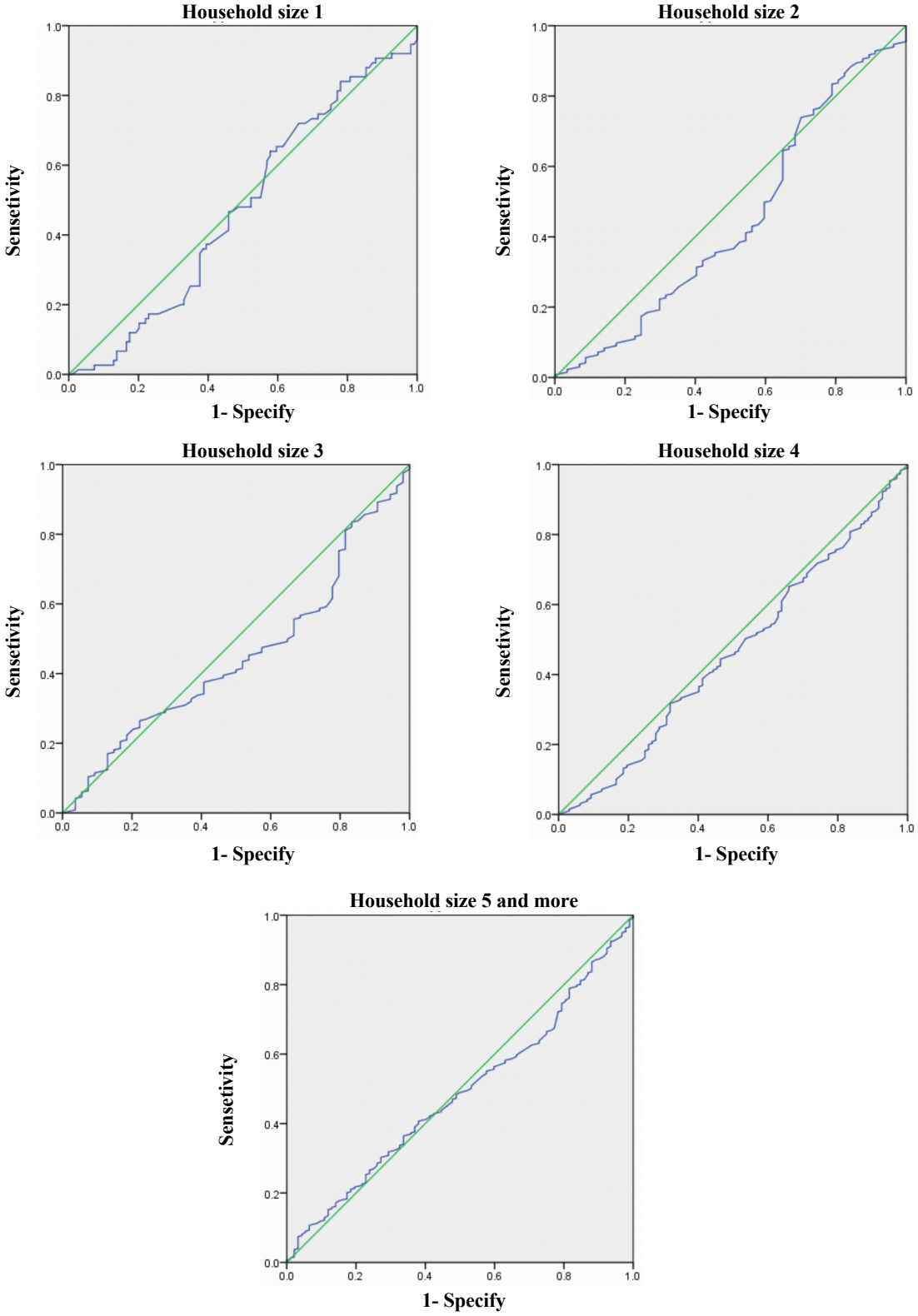
Around 17% of the refugee households (n=250) were both income and multidimensionally poor and around 28% of the households (n= 414) were neither income nor multidimensionally poor. Over half of the sample, meaning 836 households, were either income poor or multidimensionally poor. The pre-defined national poverty lines were not able to identify around 733 multidimensionally poor households and miscategorized them as not deprived (Table 2.7).

Table 2.7. Income poverty versus multidimensional poverty

	Income poverty		Total
Multidimensional poverty (aMPI)	**Not income poor**	**Income Poor**	
Not multidimensionally poor	28% (414)	6% (103)	34% (517)
Multidimensionally Poor	49% (733)	17% (250)	66% (983)
Total	76% (1,147)	24% (353)	1,500 (100%)

The calculated correlation between income poverty and multidimensional poverty was not statistically significant: $\chi^2(1)= 8.00$, $p= 0.05$. However, as expected, there was a statistically significant correlation between the calculated cumulative deprivation score in the standards of living domain and income poverty: $\chi^2(6)= 67.78$, $p= 0.000$.

Graph 1.1. Area under the curve - ROC analyses



A further analysis was conducted to determine the optimal income poverty lines for each household size that best discriminate multidimensionally poor- and non-poor households. The results of this ROC analysis showed that the area under the curve is less than 0.5 for all household sizes, indicating that income is not a good predictor of multidimensional poverty (Table 2.8). Similarly, in the ROC graphs, the blue line is close to the diagonal green line, minimizing the area under the curve. This indicates that income fails to discriminate between multidimensionally poor and non-poor households (Graph 1).

The ROC analysis also showed that at the income poverty level of USD 72,241, none of the multidimensionally poor households with one member were mislabeled as non-poor. Therefore, this income level is the optimal income poverty line for households (size 1) that correctly classifies multidimensionally poor households as poor. According to the ROC analyses, the optimal poverty lines assuring that none of the multidimensionally poor households are mislabeled as non-poor for households with two members is USD 165,217, for households with three members is USD 89,281, for households with four members is USD 144,157, and for households with five or more members is USD 137,281.

Table 2.8. The area under the curve - ROC analyses

Test Result Variable(s): Annual Income					
Household size	**Area**	**Std. Error [a]**	**Asymptotic Sig.[b]**	**Asymptotic 95% Confidence Interval**	
				Lower Bound	**Upper Bound**
1	.475	.043	.572	.392	.559
2	.446	.446	.446	.446	.446
3	.452	.452	.452	.452	.452
4	.462	.462	.462	.462	.462
5 or more	.484	.484	.484	.484	.484

[a] Under the nonparametric assumption, [b] Null hypothesis: true area = 0.5

Discussion

Close to one in every four refugee households in the sample was income poor, living under the national poverty level. Moreover, around three in every five households had a multidimensional score of 33% and more, meaning that they were experiencing deprivation in health, education, and/or standards of living. Recent studies suggest that any comprehensive study on poverty, wellbeing, and inequality should go beyond the assessment of income and wealth to explore indicators relevant to human development such as education and health (Conceição et al., 2019). In this study, refugee poverty was assessed beyond income poverty rates, bringing attention to deprivations that refugees experience in the dimensions of education, health, and standards of living within the first five years after their arrival to the United States.

Access to education is a basic human right and is linked to higher standards of living (Dryden-Peterson, 2011). It is concerning that over half of the refugee households in this sample were poor in the education dimension and only 18% of refugees who arrived with less than 11 years of schooling were pursuing a high school certificate or a degree in the United States. High rates of deprivation in educational attainment among adult refugees upon arrival to the United States could be an indication of a lack of access to educational opportunities for some groups in their home countries and during exile. It could also be an indication of a lack of understanding of the importance of education in the U.S. labor market. Refugees' low rates of participation in educational programs in the United States could be partly due to the resettlement policy, which emphasizes achieving self-sufficiency in the shortest possible period of time. Most refugees with lower levels of education have to accept low-paying job offers shortly after their arrival to the country

and work long hours of the day with the minimum wage to survive. Government assistance programs are usually for short periods of time and not long enough to create an opportunity for education. This can push refugees into a vicious cycle of poverty and entrapment in minimum wage jobs.

Similar to the general population of refugees, there is a high chance that refugees in this sample escaped conflict-affected areas and had an arduous journey to safety. This means that they experienced a lack of access to adequate healthcare and sanitation for a period of time and might have survived injuries (Asgary & Segar, 2011; Potocky & Naseh, 2019; Segal et al., 2012). Moreover, many refugees have lived in refugee camps or developing countries with limited healthcare resources for long periods of time before arrival to the United States. The high rates of health issues among refugees in this study could be partly due to these factors and the result of forced displacement. Over 25% of refugees (n= 633) in the sample had a chronic disease or reported being unable to work due to a health condition or disabilities. Although refugees go through health screening before arrival to the country and receive short-term medical insurance coverage upon arrival to the United States, navigating the healthcare system could be challenging for many and result in higher rates of chronic health conditions.

Regarding standards of living, the majority of refugee households received Food Stamps, RCA, SSI, income through GA, or TANF in the past 12 months or lived in a public housing project at the time of the interview. Almost all refugees are offered such assistance programs for short periods after their resettlement in the United States. The eligibility criteria of any of these programs and the amount and duration of assistance that they provide vary. For instance, refugees can receive RCA up to eight months after their

resettlement and the amount of assistance is proportionate to the household size; however, if the household is enrolled in the TANF program, it would not be eligible to receive RCA. Refugees can receive TANF between a maximum of 12 months in Arizona to up to five years in some states such as Oregan (Catholic Charities, 2019). Eligibility criteria for refugees to receive Food Stamps, SSI, and income through GA are need-based and similar to the criteria for the general population (Catholic Charities, 2019). Resettlement agencies play an important role in helping refugees learn about the eligibility criteria and apply for these programs if eligible.

Income poverty was not found to be an accurate predictor of multidimensional poverty. The national poverty lines were unable to recognize over 70% of multidimensionally poor refugee households in the sample. The ROC analysis confirmed that income fails to discriminate between the multidimensionally poor and non-poor households. Calculated optimal income poverty lines using ROC analysis assuring that none of the multidimensionally poor households are mislabeled as non-poor were unrealistically high and inconsistent, affirming that income is not a good indicator to identify deprivation. In this context, the capability approach to poverty and multidimensional poverty indices such as the index used in this study can provide a more comprehensive picture of poverty.

This study demonstrates that refugees are at high risk of experiencing deprivation within five years of their arrival to the United States. Resettlement policies in the United States are focused on short-term assistance and pushing refugees to get a job within the first three months of their arrival in the United States. The expectation that refugees find a job and start paying their bills within 90 days after their arrival places them in a

vulnerable position, prone to experiencing multiple deprivations as the result. Since minimum-wage jobs are usually more accessible, most refugees are trapped in low-paid jobs and have to sustain long hours of work to make ends meet. They might succeed in earning incomes above the federal poverty line with longer hours of work, but many experience deprivation in education, health, and standards of living. As one of the service providers in an ethnographic study by Bonet (2016) said, with the current policies, "we are resettling them [refugees] into poverty… they [refugees] are going to become a part of the American poor" (p. 122).

Limitations

The dataset utilized in this study was collected in 2016; therefore, the findings might not reflect the current situation of refugees in the United States, especially the impacts of recent policies affecting refugees and programs offered to refugees. For instance, the executive order commonly known as the "travel ban" prohibits citizens of Iran, Libya, North Korea, Somalia, Syria, and Yemen from entering the United States except in unique circumstances. Although this executive order does not directly affect refugees who are already in the United States, it has created further stigma, isolation, and separation from family members abroad, consequently potentially impacting these refugees' deprivations in multiple dimensions.

The 2016 ASR is the only available national dataset on refugees with data on self-sufficiency. However, the dataset has many limitations that restricted the findings of this study. For instance, the study has limitations associated with the use of self-reported data. Furthermore, due to the lack of data on access to assets and mobility, deprivation in standards of living was calculated through enrollment of refugee households in six

different government assistance programs. Moreover, due to the limitations of the dataset, instead of malnutrition, self-reported data on chronic diseases was used to measure deprivation in the health dimension.

Conclusion and Implications

In the absence of a prior published study on multidimensional poverty among refugees in the United States, this study provides important information on multiple deprivations that refugees experience in the three dimensions of health, education, and standards of living. Calculated poverty rates among refugees, both income and multidimensional poverty rates, were high and concerning, calling for further attention to poverty reduction among this group.

In terms of health, one in every four refugee households in the sample reported having a member living with a chronic health condition or a member unable to work due to a health problem or disabilities. Considering these high rates, assistance might be needed to help refugees navigate the health system in the United States. For refugees who are suffering from chronic health conditions, navigating the United States health care system could be complex; social workers employed in health care settings can make this process easier. Refugees might be reluctant to seek healthcare services even while suffering from chronic health conditions due to financial, organizational, cultural, and social barriers. Social workers as front-line service providers can play a vital role in helping refugees overcome these barriers. Regarding financial barriers, refugees currently receive health insurance up to eight months after they arrive in the country through the Refugee Medical Assistance program (Office of Refugee Resettlement, 2019) and after this period, they could be eligible to receive Medicaid although the coverage and

requirements may vary between states. Social workers can play an important role in helping eligible refugees enroll in Medicaid and have access to affordable healthcare services.

In terms of organizational barriers, time and communication could be among significant obstacles. In this context, text messaging platforms can be low-cost communication tools to send reminders or information about health services to refugees. The use of automated text message reminders in the medical field has proven to be a cost-effective, timesaving, and labor-efficient strategy in enhancing compliance with treatment and screenings (Kannisto et al., 2014; Perri-Moore et al., 2016; Schwebel & Larimer, 2018).

Concerning cultural and social barriers, social workers can play a key role in awareness-raising among refugees and advocating for culturally relevant services for them. Western medications or mental health services might not be welcomed in some cultures; however, social workers can help in encouraging refugees to trust the healthcare system. Provision of interpretation and help might be needed for many refugees to get an appointment, arrive at the health care center, register with the front desk, and fill out intake forms. Interpretation and translation might also be needed during doctor's appointments, which requires longer appointments to allow for interpretation time. Only professional interpreters and those who are knowledgeable about cultural values should be hired in such cases. Publicly funded healthcare organizations are mandated to provide interpretation and translated materials when needed.

Regarding standards of living, due to limitations of the dataset, instead of measuring access to minimum standards of living, such as assets and access to

information among refugees, enrollment in government assistance programs was used as the indicator. There is a need for data collection in this area to explore refugees' access to proper housing and assets related to access to information, mobility, and livelihood. Social work researchers can play an important role in filling this gap in the literature and advocating for more comprehensive surveys among refugees. Findings of this study highlight high rates of enrollment in government assistance programs, which could be expected. Service providers should take into consideration that the majority of refugees escaped conflict-affected areas without well-advanced planning and had to spend their limited financial resources on crossing borders and surviving in exile. Consequently, they usually have to start their new lives in the United States with no or very limited savings. Social workers should be knowledgeable about government assistance programs for refugees as well as potential services for this group through non-governmental and private organizations to help refugees start their new lives.

The findings of this study also highlight some of the shortcomings of the monetary approach to poverty and the income poverty method in capturing deprivations that refugee households experience. Pre-defined federal poverty lines failed to capture over two-thirds of the multidimensionally poor households. The ROC analysis also confirmed that income is not a good indicator of whether a household is multidimensionally poor or not. Considering the widespread use of the income poverty method, service providers, specifically, social workers, should be more cautious in classifying refugees with income levels above poverty as not deprived. More in-depth analysis should be conducted, and further information should be collected to affirm lack of deprivation among refugees. Multidimensional poverty indices such as the index

designed in this study, aMPI, are recommended to provide a more comprehensive picture about poverty and deprivation among refugees.

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Chapter III: Factors Associated with Poverty Among Refugees in the United States

Abstract

A considerable number of refugees are at risk of poverty after arriving in the United States. In this context, knowledge of factors associated with poverty among refugees is important and relevant for social workers as front-line service providers. This study utilized Ager and Strang's (2008) refugee integration framework to examine the association between selected risk factors and poverty among refugees. Correlational analyses were conducted between poverty and English language proficiency, length of residency, and application for permanent residency using data from the 2016 Annual Survey of Refugees dataset. Poverty was quantified in two ways: (1) households' income and (2) multidimensional poverty (deprivation in three domains: education, health, and housing). Multivariate models showed that lack of English language proficiency is the strongest predictor of both income and multidimensional poverty. These findings call for more attention to English language training among refugees.

Introduction

Between 1980, when the Refugee Act was passed, and 2020 the United States has admitted around three million refugees (U.S. Department of State, 2020). Between 1990 and 1995, on average around 116,000 refugees arrived in the country each fiscal year (Krogstad, 2019). This number dropped to around 27,000 after the September 11th terrorist attack in 2001 but increased in the following years to an average of around 67,100 entries until 2017 (Krogstad, 2019). Under the current administration the number of refugee admissions decreased once again and the ceiling for 2020 is at the historically low number of 18,000 admissions (Krogstad, 2019). Despite the decrease in the new

admissions, the number of refugees arriving in the country may increase again in the future; meanwhile, social workers will continue to work with the considerable number of refugees who have already arrived and those who will arrive in the country.

Shortly after arriving in the United States, refugees experience unique challenges due to the adverse impacts of forced displacement (Potocky & Naseh, 2019). Refugees are forcibly displaced people who have fled persecution often caused by conflict and war in their countries of origin (UNHCR, 2010). Consequently, the majority of refugees arrive in their new countries with limited financial resources and social support (Betancourt et al., 2015; Naseh et al., 2018). Therefore, it is likely for the majority of refugees to experience poverty and deprivation after resettlement in the United States.

Considering the higher risk of poverty among refugees, knowledge of factors associated with this problem is relevant and important for social workers to serve better and advocate more effectively for their refugee clients. However, studies in this area have been limited partly because refugee status is rarely reported in large or national datasets on income and poverty (Bollinger & Hagstrom, 2011) and partly due to the fluidity of refugees' status. Refugees must apply for their permanent residency one year after arrival in the United States and then can apply for citizenship after five years; therefore, their legal status changes (American Immigration Council, 2020; U.S. Citizenship and Immigration in Services, 2017).

Conceptual Framework

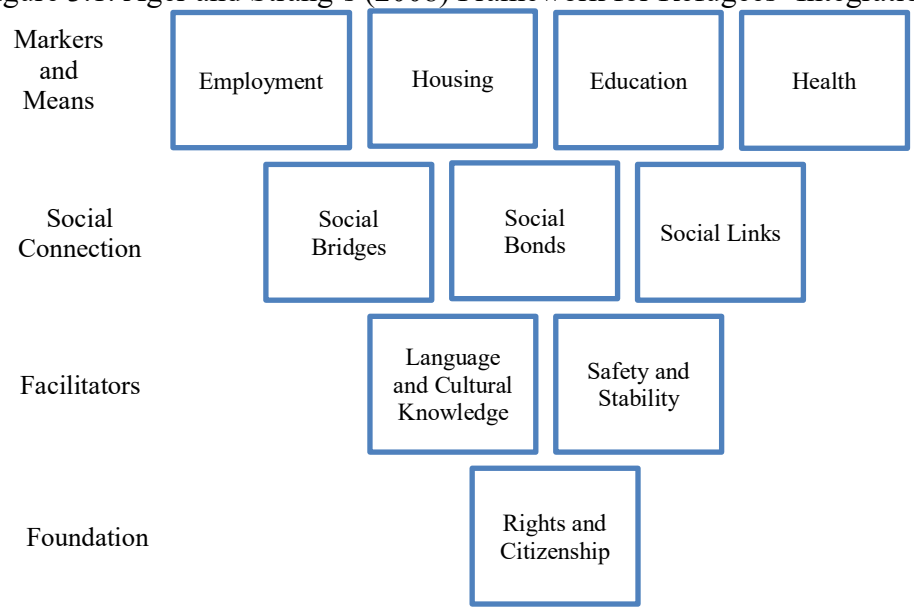
Ager and Strang's (2008) refugee integration framework underlies the conceptual model of this study. To provide a comprehensive image of poverty among refugees and in line with Ager and Strang's (2008) definition of "markers and means" indicators,

poverty in this study was measured using households' income based on the monetary approach to poverty and households' deprivation in three domains of education, health, and housing based on the capability approach to poverty. Measuring poverty using income is a common technique based on the monetary approach to poverty. In this approach, households or individuals are categorized as poor if their income is lower than pre-defined poverty lines (Haughton & Khandker, 2009). Instead of measuring income or expenditures, the capability approach has a people-centered view and classifies households or individuals as poor or non-poor based on their capabilities and deprivation that they experience in different aspects of human development (Conceição et al., 2019; Laderchi et al., 2003). One of the common methods of measuring poverty in the capability approach is using multidimensional indices (Laderchi et al., 2003). In this study an adjusted version of the widely used global Multidimensional Poverty Index (MPI; Jahan et al., 2015) was utilized to measure households' deprivation in three domains: education, health, and housing.

Ager and Strang's (2008) framework serves as a "middle-range theory," created based on an inductive approach to provide a logical structure for key components of integration of refugees in host communities. This framework has four key domains and 10 indicators (Figure 3.1.). The first domain is "foundation" and has one fundamental indicator of refugees' integration: citizenship and rights. The second domain is "facilitators" and is comprised of two indicators facilitating refugees' integration: language and cultural knowledge, and safety and stability. The third domain is "social connection" and consists of three indicators: social bridges, bonds, and links. The fourth and final domain is "markers and means" and consists of four indicators of refugees'

level of integration in host communities: employment, housing, education, and health (Ager & Strang, 2008). Ager and Strang's (2008) framework has been utilized as a conceptual model in several studies on the wellbeing of refugees (Alencar, 2018; Block et al., 2012; Pittaway et al., 2009; Platts-Fowler & Robinson, 2015; Strang & Ager, 2010).

Figure 3.1. Ager and Strang's (2008) Framework for Refugees' Integration



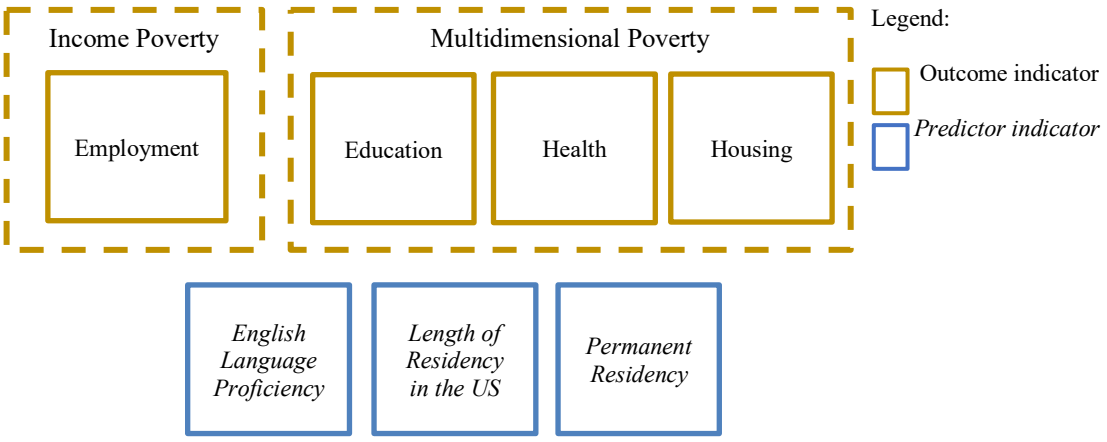
Source: Ager and Strang (2008)

With some adjustments, Ager and Strang's (2008) framework served as a logical structure for the conceptual model of this study (Figure 3.2.). The main rationale for choosing this framework was the assumption that indicators linked to integration can impact refugees' poverty and deprivation.

Similar to Ager and Strang's (2008) framework, the conceptual model of this study posits that refugees' rights and citizenship (foundation), safety and stability and language and cultural knowledge (facilitators) can fundamentally affect their integration and, consequently, their employment, housing, education, and health (markers and means). In the adjusted framework, the employment indicator was represented by income

poverty. Education, health, and housing were incorporated into a multidimensional poverty index. Moreover, English language proficiency was used to represent language and cultural knowledge indicators, and the length of residency in the United States represented the safety and stability indicator. Furthermore, rights and citizenship as an indicator was quantified based on refugees' application for permanent residency in the United States. Due to a lack of information on refugees' social networks in the dataset used for this study, social bridges, bonds, and links were excluded in the adjusted framework (Figure 3.2.).

Figure 3.2. Adjusted framework for this study



Sources: Adapted from Ager and Strang (2008)

State of Knowledge

Limited studies have explored factors associated with refugee poverty and deprivation in education, health, and housing. Among these studies, success in securing higher levels of income has been largely associated with higher levels of English language comprehension (Halpern, 2008; Peters, 2008; Sienkiewicz et al., 2013). For instance, Halpern (2008) and McWilliams and Bonet (2016) found a link between

English language proficiency and wages. Similarly, Brown and colleagues' (2014) qualitative study found connections between English language comprehension and income, while Sienkiewicz and colleagues' (2013) ethnographic study suggested associations between lack of English language proficiency and unemployment. Lack of English language proficiency also is a risk factor for refugees' mental health and linked to problems such as somatic distress (Brown & Scribner, 2014) and post-traumatic stress disorder (PTSD; Marshall et al., 2005).

Evidence also exists to suggest an association between lack of English language proficiency and delaying health care among refugees (Goodkind et al., 2014; Mirza et al., 2014; Shannon et al., 2016). Upon arrival to the United States refugees have access to an insurance plan called Refugee Medical Assistance for eight months (Office of Refugee Resettlement, 2019); however, barriers such as lack of English language proficiency (Goodkind et al., 2014; Mirza et al., 2014; Shannon et al., 2016), lack of access to transportation (Mitschke et al., 2017; Taylor et al., 2014), stigma and discrimination (Nazzal et al., 2014), lack of access to childcare (Saadi et al., 2015), lack of trust (Shannon et al., 2016; Worabo et al., 2016), and complexity of the healthcare system (Mirza et al., 2014) can hinder their access to much-needed health services.

Lack of social networks is also among the factors correlated with poverty and deprivation among refugees (Abdul-Razaq, 2017; Aikawa & Kleyman, 2019; Betancourt et al., 2015; Brick et al., 2010; Halpern, 2008; Schiller et al., 2009; Weine et al., 2011). For instance, Aikawa and colleagues (2019) found that social support is an important factor in refugees' well-being, Abdul-Razaq (2017) suggested that refugees' social network can mitigate the hardship of integration, and Alshadood and colleagues (2018)

found a strong and positive association between refugees' social bonds and employment. Moreover, the literature suggests a link between poor health outcomes and lack of social networks among refugees (Berthold et al., 2019; Cummings, Sull, Davis, & Worley, 2011). Some studies found a contradictory result, suggesting minimal or no significant relationship between refugees' social network and their economic status (Potocky-Tripodi, 2004) or health (Njororai & Lee, 2018).

The relationship between poverty and length of residency in the literature is complex. Some studies have found a link between acculturation and length of residency with employment and income among refugees (Nadeau, 2008; Takeda, 2000; Vinokurov et al., 2000), but findings of several studies refute this relationship (Anderson et al., 2014; Arafah, 2016; Bayoh, 2016; Griffiths & Loy, 2019; Itto, 2008). For instance, Hooper and colleagues (2016) found that after 20 years of being in the United States, refugees' income reaches that of US-born individuals. Moreover, Vinokurov and colleagues (2000) found a link between work status and acculturation level among Soviet Jewish refugees. However, Griffiths and colleagues (2019) and Itto (2008) suggested that poverty among refugees does not have a statistically significant association with length of residency.

Poverty is a complex and multidimensional problem. However, among the limited studies that explored associated factors with refugee poverty, the majority only explored one aspect of the problem of poverty, lack of income. Some of the reviewed studies also explored deprivations that refugees experienced in other aspects of life such as health, but none looked at the problem of poverty from a multidimensional perspective. Consequently, these studies only measured factors associated with one aspect of poverty, providing a limited perspective of the problem and factors associated with it.

Furthermore, none of the studies used a nationally-representative sample of refugees. This study is the first to explore factors associated with different aspects of poverty using a multidimensional poverty index in addition to an income poverty index, based on a nationally-representative sample.

Purpose of Study

This study aimed to explore factors associated with refugee poverty in the United States. To provide a more comprehensive picture of refugee poverty, this problem was quantified using both income poverty and multidimensional poverty (deprivation in education, health, and housing) indices. Based on the conceptual framework of the study (Figure 3.2.), which was developed using Ager and Strang's (2008) refugee integration framework, associations between refugee poverty (income and multidimensional poverty) and English language proficiency, length of residency in the United States, and application for permanent residency were explored.

Methods

The 2016 Annual Survey of Refugees (ASR) dataset was used in this study. This dataset was collected through a national cross-sectional survey, interviewing 1,500 principal applicants for refugee status (Urban Institute, 2016). In this survey, the principal applicants answered questions for all adult members of the household, age 16 and older at the time of the interview. This survey used stratified probability sampling among refugee households who entered the country between fiscal years 2011 and 2015, offering a nationally representative dataset on refugees (Triplett & Vilter, 2018). The 2016 ASR is the only publicly available national dataset specifically on refugees.

Variables and Operational Definitions

Dependent variables. This study examined two dependent variables: income poverty and multidimensional poverty. Income poverty was a binary variable, separating "poor" from "non-poor" households. This variable was calculated by comparing households' income for each household size with the national poverty lines (U.S. Department of Health and Human Services, 2015). Households' income was measured annually by summing the annual earnings of each household member.

Multidimensional poverty was a binary variable, separating poor households from non-poor households using a multidimensional poverty index. The multidimensional poverty index used in this study was based on the global Multidimensional Poverty Index (MPI). The MPI was designed by Alkire and Santos (2010) and has since been used in the United Nations Development Programme (UNDP) annual human development reports to measure poverty in multiple aspects of living (UNDP, 2018). This index measures poverty in three dimensions (education, health, standards of living) through 10 indicators.

In the first dimension of the MPI, education deprivation is measured by two indicators: 1) years of education for adults, and, 2) schooling for children. In the second dimension of the MPI, health deprivation is measured by two indicators: 1) malnourishment for adults, and 2) child mortality. In the third dimension of the MPI, deprivation in standards of living is measured by six indicators: 1) access to electricity, 2) assets, 3) clean drinking water, 4) improved sanitation, 5) clean cooking fuel, and 6) clean flooring (Jahan et al., 2015).

In the multidimensional poverty index of this study, a similar indicator to MPI, years of schooling, was used to measure education deprivation for adults. The poverty line for adult education in the MPI is six years of schooling, which was adjusted to 11 years of schooling for the multidimensional poverty index of this study to reflect the average mandatory education in the United States (National Center for Education Statistics, 2017). A household was classified as educationally poor if at least one of its adult members had not completed 11 years of schooling upon arrival in the United States and had not attended an educational program after arrival in the country. All other households were classified as non-poor in the education domain. A binary indicator at the household level was defined for the education dimension to separate educationally poor (code 1) and non-poor households (code 0).

In the health dimension of the MPI, poverty among adults is calculated based on malnutrition. Due to a lack of data on nutrition in the dataset, poverty in the health dimension was calculated based on self-reported data on chronic health conditions and the inability to work due to poor health conditions or disabilities. Household poverty in this dimension was calculated based on two equally-weighted binary variables. The first variable separated households by assigning a code of 1 (poor) to households that had at least one member with a chronic health condition, and a code of 0 (non-poor) to households who did not report any chronic health conditions. The second variable in this dimension separated households who had a member unable to work due to poor health or disability as poor (code 1) from those who did not report such health conditions or disabilities (code 0).

In the standard of living dimension of the MPI, the original indicators are either irrelevant to standards of living in the United States (e.g., as access to electricity or clean drinking water) or unavailable in the dataset (e.g., access to information or mobility). Therefore, deprivation in the third domain of the multidimensional poverty index of this study was defined based on households' housing. A household was classified as poor in this domain by a code of 1 if its members were living in a public housing project at the time of the interview. All other households were classified as non-poor by code of 0 (Table 3.1).

In line with the MPI definition (Alkire & Santos, 2010; Jahan et al., 2015), the three dimensions of the multidimensional poverty index of this study were equally weighted as 1/3 and each indicator in these dimensions was also equally weighted (Table 3.1). The multidimensional poverty index of the study was calculated by summing up the deprivation scores in the three dimensions of education, health, and housing. In line with the MPI method, households were classified as multidimensionally poor by a code of 1 if their calculated deprivation score based on the multidimensional poverty index was 33.3% or greater. A code of 0 was assigned to non-poor households who had multidimensional poverty index score of less than 33.3%.

Table 3.1. Multidimensional poverty index of the study: indicators and weights

Dimension	Indicator	Deprived if…	Relative Weight
Education	School attainment	A household member has not completed 11 years of schooling or equivalent	33%
Health	Self-reported health	A household member reported chronic health condition	16.5%
		A household member was not able to work due to poor health condition or disability	16.5%
Housing	Living in a public housing project	Household was living in a public housing project at the time of the interview	33%

Independent variables. The predictor variables in this study were English language proficiency, length of residency in the United States, and application for permanent residency. Since income and multidimensional poverty, the outcome indicators of the study, were at the household level, predictor indicators were also measured at the household level. For English language proficiency, data on individuals' ability to speak English was used. A binary variable was defined, and a code of 0 was assigned for households with members who all could speak English "well" or "very well" at the time of the interview. A code of 1 was assigned for households with at least one member who could not speak English well or very well at the time of the interview.

Length of residency in the United States was defined based on a categorical variable in the dataset grouping refugee households into those who arrived between 2011 and 2012 fiscal year (code 1), those who entered the country between 2013 and 2014 fiscal year (code 2), and those who arrived in 2015 (code 3).

Refugees' application for permanent residency was defined based on a binary variable in the dataset showing head of the households' (principal applicants for refugee status) "yes" or "no" answer to the question asking if they have applied to adjust their immigration status to "permanent resident." Households who applied for permanent residency were separated by code of 0 from those who had not applied for adjusting their immigration status by a code of 1.

Data Analyses

Pearson's chi-square test was used to measure bivariate correlations between poverty (income and multidimensional) and English language proficiency, length of residency in the United States, and application for permanent residency. Cramer's V test

was used to measure the strength of the correlations. Logistic regression was used for multivariate analyses. All data analyses were conducted using Stata version 15 (StataCorp, 2017).

Control variables. In the multivariate analyses, sex, age, and marital status were included as control variables. These variables were categorical and measured based on self-reported data on sex (male: code 0, female: code 1), age (18 or under: code 1, 19 to 30: code 2, 31 to 40: code 3, 41 to 50: code 4, 51 to 60: code 5, 61 to 70: code 6, above 70: code 7), and marital status (never married: code 0, divorced or legally separated: code 1, widowed: code 2, married: code 3, other: code 4) of the heads of the households. Literature suggests a link between being female and having lower rates of employment and educational attainment (Gowayed, 2019; Griffiths & Loy, 2019; Potocky-Tripodi, 2003). Moreover, evidence exists to suggest possible associations between being older and experiencing higher rates of unemployment (Griffiths & Loy, 2019; Halpern, 2008). Additionally, studies found links between being married and income poverty and fewer opportunities for education (Abdi, 2014; Hooper et al., 2016).

Results

Sample Characteristics

Demographics. The demographic characteristics of the surveyed households are shown in Table 3.2. The majority of the households in the sample had three or more members and were male-headed households. The vast majority of the household heads were of working age (19-60) and married. Most of the refugees in the sample were originally from Burma, Iraq, and Bhutan.

Table 3.2. Characteristics of the surveyed households

Characteristics	Subgroups	Distribution in percentage (number of households)
Number of household members	1	24.0% (361)
	2	17.1% (257)
	3	16.6% (248)
	4	17.4% (261)
	5 and more	24.8% (372)
Country of birth	Burma	22.93% (344)
	Iraq	21.99% (330)
	Bhutan	15.82% (237)
	Somalia	9.67% (145)
	Other	9.61% (144)
	Cuba	9.23% (138)
	Iran	5.18% (78)
	D. R. of the Congo	3.73% (56)
	Thailand	1.05% (16)
	Nepal	0.68% (10)
	United States	0.06% (1)
	Don't know	0.05% (1)
Age of the head of the household	18 and under	0.5% (5)
	19 - 30	19% (288)
	31- 40	34.5% (516)
	41- 50	20% (299)
	51- 60	11% (170)
	61- 70	5% (78)
	71 and above	10% (144)
Sex of the head of the household	Male	73% (1,096)
	Female	27% (404)
Marital status of the head of the household	Never married	24% (364)
	Divorced or legally separated	6% (94)
	Widowed	4% (57)
	Married	64% (964)
	Other	2% (21)

Descriptive Statistics. Of the 1,500 refugee households in the sample, around 24% (n=354) had income levels below the national poverty lines and around 70% (n= 1,048) were found to be multidimensionally poor, having multidimensional poverty index score of 33.3% or higher. Less than half of the surveyed households (around 38%, n= 569) had members who all could speak English well or very well at the time of the interview and the largest proportion (around 44%, n= 654) arrived in the country between

2013 and 2014. Around 70% (n= 1,048) of the households had applied for permanent residency at the time of the interview (Table 3.3).

Table 3.3. Poverty, English language proficiency, length of residence, and permanent residency among surveyed households

Characteristics	Subgroups	% (# of households)
Income poverty	Poor	24% (354)
Multidimensional Poverty	Poor	70% (1,048)
English language proficiency	All members could speak English well or very well	38% (569)
Cohort of arrival in US	2011 to 2012	36.5% (547)
	2013 to 2014	43.6% (654)
	2015	19.9% (299)
Application for permanent residency	Yes	70% (1,048)

Deprivation in the education dimension was around 61% (n=921), meaning that more than half of the households had at least one member age 16 or over who had not completed 11 years of schooling upon arrival in and had not been enrolled in an educational program. Around 35% (n= 519) of the households were found to have at least one member with a chronic health condition (31%, n=461) or one member who was unable to work due to health problems or disabilities (21%, n= 320). Around 18% (n= 263) of the households were deprived in the housing dimension, meaning that these households were living in a public housing project at the time of the interview.

Bivariate Analyses

Lack of English proficiency at the time of the interview was weakly associated with households' income poverty (χ^2 [1] = 7.40, p= 0.000, Cramer's V= .10), but had a strong association with multidimensional poverty (χ^2 [1] = 186.81, p= 0.000, Cramer's V= .35). Refugees who had lived longer in the United States were slightly less likely to

be income poor (χ^2 [2]= 8.10, p= 0.02, Cramer's V= .07) than those with shorter lengths of residency. Households that had not yet adjusted their status to permanent residency were slightly more likely to be multidimensionally poor (χ^2 [1]= 16.90, p= 0.000, Cramer's V= .11). There were no significant associations between length of residency and multidimensional poverty nor between application for permanent residency and income poverty.

Multivariate Logistic Regression Model

Likelihood logistic regression models were used to analyze correlations between income and multidimensional poverty and those risk factors that had statistically significant correlations with poverty in the bivariate analyses, controlling for age, sex, and marital status of the head of the households. In both models, English language proficiency was the strongest predictor for poverty. The model for income poverty was only able to explain 2.4% (R^2) of the variance in poverty (χ^2 [5]= 42.26, p= 0.00). Compared to households with complete English language proficiency, the odds of being income poor for other households were 1.4 times higher. Compared to households who arrived in the first cohort (2011-2012), the odds of being income poor for those who arrived later were 1.2 times higher per cohort (Table 3.4).

The model for multidimensional poverty explained 11% (R^2) of the variance in poverty (χ^2 [5]= 206.80, p= 0.00). Compared to households with complete English language proficiency, the odds of being multidimensionally poor for other households were 4.2 times higher. Moreover, compared to households that had adjusted their status to permanent residency, the odds of being multidimensionally poor for households that have not adjusted their status were 1.3 times higher (Table 3.4).

Table 3.4. Multivariate logistic regression models

Poverty	Odds Ratio	Std. Error	Z	P>|z|	95% Confidence Interval	
Income poverty						
Lack of English language proficiency	1.440	0.183	2.86	0.004	1.121879	1.848527
Length of residency	1.197	0.085	2.51	0.012	1.040032	1.378019
Marital status	1.222	0.059	4.09	0	1.110065	1.345374
Age	0.769	0.062	-3.23	0.001	0.6560145	0.9021645
Sex	1.331	0.173	2.19	0.028	1.031015	1.719521
Constant	0.200	0.067	-4.78	0	0.1039211	0.3877641
Multidimensional poverty						
Lack of English language proficiency	4.178	0.519	11.51	0	3.27533	5.32963
Application for permanent residency	1.271	0.184	1.65	0.098	0.9564923	1.689065
Marital status	1.140	0.052	2.88	0.004	1.043033	1.247674
Age	1.180	0.099	1.97	0.049	1.000799	1.391059
Sex	1.116	0.153	0.8	0.425	0.8528286	1.459523
Constant	0.386	0.116	-3.16	0.002	0.2140901	0.6968249

Discussion

Higher rates of poverty and lower wages among foreigners in the United States have been reported in the early social welfare documents. For instance, in 1892, a "wage penalty" for foreigners was reported by Hull House resident, Julia Lathrop (Lathrop, 1984; Stuart, 2018). The penalty was in place as foreigners were considered as "unskilled," "ignorant," and "unassimilated" members of the society (Lathrop, 1894). This study used Ager and Strang's (2008) refugee integration framework to explore factors associated with poverty among refugees in the United States. Lack of English language proficiency was found to be the best predictor of both income poverty and multidimensional poverty among refugees within the first five years of their arrival to the country. This finding is in line with the previous studies on refugees demonstrating links between lack of English language comprehension and worse employment prospects (Nawyn et al., 2012; Pellegrino, 2017; Ross et al., 2019), lack of access to information (Nawyn et al., 2012; Pellegrino, 2017), mental health issues (Abdul-Razaq, 2017; Brown

& Scribner, 2014; Sienkiewicz et al., 2013), social isolation (Pellegrino, 2017), lack of access to educational opportunities (Watkins et al., 2012), and lack of access to health services (Boateng, 2015; Gadigbe, 2018).

Households that arrived between 2013 and 2015 were more likely to be income poor compared to households that arrived between 2011 and 2012. The relationship between poverty and length of residency in this study was only explored in the short-term (within the first five years of refugees' arrival in the country). Nevertheless, such a relationship might appear in longer periods of time with further acculturation. Length of residency is a common indicator of acculturation in the literature (Ager & Strang, 2008; Dharod et al., 2011; Strang & Ager, 2010) and could be consequently linked to poverty. However, the evidence on the relationship between poverty and length of residency among refugees in the literature is mixed (Alnaeemi, 2018; Arafah, 2016; Bayoh, 2016; Dhalimi et al., 2018; Elwell et al., 2014). For instance, Hooper and colleagues (2016) found that over a period of 20 years, refugees' income nearly reaches the average income of native-born individuals. Moreover, in a qualitative study by Alnaeemi (2018), all but one of the interviewed refugees stated that length of residence in the United States helps with finding an appropriate job. However, in studies by Arafah (2016), Griffiths and colleagues (2019), Itto (2008), and Bayoh (2016) no significant relationship was found between length of residency and indicators of refugees' economic incorporation in the United States.

This study also found an association between multidimensional poverty and application for permanent residency. Literature suggests that citizenship or permanent residency can facilitate refugees' access to more services (Hagelund & Kavli, 2009;

Halpern, 2008), which consequently may or may not result in lower levels of deprivation and poverty among refugees (Alnaeemi, 2018; Fong et al., 2007; Potocky-Tripodi, 2004).

Although the explained variance in both multivariate models was small, the model was able to explain more of the variance in multidimensional poverty ($R^2 = 11\%$) in comparison to income poverty ($R^2 = 2.4\%$). Current resettlement policies are the result of the Refugee Act of 1980. The act aims to help refugees achieve "economic self-sufficiency" and "as quickly as possible." Literature suggests that the current policies, specifically the emphasis on finding a job as soon as possible and reaching self-sufficiency in 90 days, pushes many refugees to accept low-paid jobs and consequently experience income poverty (Bonet, 2016; Chen & Hulsbrink, 2019; Shutes, 2011). In this context, predictor variables of the study may have a limited role to play in impacting households' income compared to resettlement policies, while these factors had a larger role to play in impacting households' access to education, health, and housing.

Limitations

The 2016 ASR is the only national dataset specifically on refugees, but it has several limitations. The 2016 ASR was collected through a cross-sectional and a nationally representative survey, however, a longitudinal dataset with information on poverty and deprivation over the course of multiple years could have offered more robust findings about factors associated with poverty among refugees. Moreover, quantitative analyses conducted in this study were limited to the available data in the 2016 ASR. This limitation did not allow correlational analyses between poverty and refugees' social networks (bonds, bridges, and links). Moreover, the lack of data on households' access to public housing may have resulted in an underestimation of multidimensional poverty.

Some of the deprived households in the sample may not have access to public housing units due to different reasons, including a shortage of units. Due to limitations of the dataset, this lack of access was interpreted as a lack of deprivation in the housing domain.

Conclusion and Implications

The findings of this study contribute to the limited literature about factors associated with refugee poverty in the United States. While English language proficiency was found to be the best predictor of income poverty and multidimensional poverty among refugees, at the time of the interview more than half of the households had at least one member age 16 or over who could not speak English well or very well. These results revealed a need for further attention to English language training among refugees. Some may criticize the emphasis on English language training for foreigners, arguing that it is as an example of cultural imperialism to replace immigrants' language with the dominant language of the United States, English. I argue that English language learning should be approached as a tool for economic integration of immigrants and refugees rather than a technique to encourage assimilation. English language training as a poverty reduction strategy among immigrants in the United States dates back to over a century ago in settlement houses.

English language learning classes such as English as a Second Language (ESL) or English for Speakers of Other Languages (ESOL) are among the first services that newly arrived refugees are referred to by their assigned caseworkers, but some refugees might not be able to benefit from these often free-of-charge English language programs due to an array of reasons including lack of access to transportation and childcare. Although ESL or ESOL program are widely offered by school districts, community colleges, other

public agencies, classes usually have inflexible times based on the availability of the space and many refugees cannot attend the full program in the absence of access to affordable transportation and childcare. Some refugee-serving organizations have started online or in-home English language tutoring programs, but the scale of these programs has remained limited (My Mustaqbal, n.d.; Refugee Assistance Alliance, n.d.; RefugeeOne, n.d.). Dissemination of information among refugees about these services is important as well as provision of the required tools such as computers or smart phones and Internet access. Social workers should emphasize the importance of learning English while working with their refugee clients and advocate for their access to access to English learning classes that match their needs. Considering the limited time that refugees have between arriving in the country and starting a new job, access to English language classes could also be provided and promoted while refugees are in other host countries waiting to be resettled in the United States.

The study revealed a weak connection between refugee poverty and both length of residency and application for permanent residency. The weak association between income poverty and length of residency could be the result of the short time span of the study and a stronger connection might be found if this relationship is explored over a longer period of time. Permanent residency was likely only weakly predictive of poverty because permanent residence is highly associated with length of residence. Considering the limited information in this area, social workers can contribute to the knowledge in this field by data collection and implementing longitudinal studies.

The multivariate models of the study were able to explain a small variance in income and multidimensional poverty of surveyed refugees. Further studies are needed in

this field to suggest better models explaining poverty among refugees. The models of the study were able to explain more of the variance in multidimensional poverty compared to income poverty, which could be partly explained by the emphasis of the resettlement organizations in finding immediate employment for refugees. Most of the immediately available jobs are in low-paid occupations, resulting in income poverty among households, specifically in larger households with one or two employed members. Advocacy is needed in this field to revisit the current resettlement policies and the consequences of these policies on refugee poverty.

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Chapter IV: A Multidimensional Framework for Understanding Refugee Poverty in the United States

Abstract

Refugees are among the most at-risk groups to experience poverty and deprivation in different aspects of their lives. Knowledge about factors associated with poverty among this group can help involved organizations, service providers, and policymakers plan better for the successful integration of refugees. This paper aims to present a multidimensional poverty framework for adult refugees with a specific focus on their first five years in the United States. A systematic review of literature on factors associated with poverty among adult refugees, an inductive analysis of qualitative data on refugee poverty, and a secondary analysis of a national dataset on refugees were used as data sources to extract and explore factors associated with income poverty and multidimensional poverty (deprivation in education, health, and housing) among refugees in the United States. Findings indicate that part of the problem of poverty among refugees, specifically in early years after their arrival in the United States, is linked to the sex and ethnicity of the head of the household, resettlement policies, discrimination, lack of access to transportation, lack of English language proficiency, and lack of social connections. These factors are grouped and summarized in a proposed multidimensional poverty framework for refugees. Further investigations are needed to validate the structure of the proposed poverty framework, but in its current form, the proposed framework provides an opportunity for further studies and debate in the field of refugee poverty.

Introduction

Refugees are one of the most at-risk groups to experience poverty and deprivation in life (Jacobsen, 2005; Potocky & Naseh, 2019). The abrupt and unplanned nature of the forced displacement usually leaves refugees with limited financial and social assets (Betts, Bloom, Kaplan, & Omata, 2017; Naseh, Potocky, Burke, & Stuart, 2018). Moreover, forced displacement often interrupts refugees' access to education and opportunities to invest in their human capital (Dryden-Peterson, 2011). These challenges together with other factors such as lack of familiarity with a new language, stigma and discrimination, unfamiliarity with the job market can result in poverty among newly resettled refugees in different countries (Ekren, 2018; Lukasiewicz, 2017; Mottaghi, 2018). Therefore, it is relevant and necessary to explore risk factors for poverty and barriers to achieving self-sufficiency among refugees, especially in the early years after resettlement. In this context, this paper aimed to build a multidimensional poverty framework for adult refugees with a specific focus on their first five years in the United States. This study aimed to provide a logical model, mapping factors that shape parts of the trajectories of poverty among adult refugees in the short-term before they apply for their citizenship (within the first five years of their arrival to the country).

Poverty in this study was defined using both income and human development indicators including deprivations in education, health, and housing. Poverty was measured using an income poverty index together with a multidimensional poverty index that takes into account deprivations that households experience in three dimensions: education, health, and housing. The risk factors that formed the basis of the multidimensional poverty framework of this study were extracted and explored using

three data sources: a systematic review of literature, a qualitative study, and a secondary analysis of a national dataset on refugees in the United States. This paper describes the development of the multidimensional poverty framework for adult refugees in the United States with a specific focus on the first five years since their arrival in the country to provide a structure for future poverty studies, service provision, advocacy, and policy making for this group.

Conceptual Framework

The conceptual framework of this study is based upon the monetary and capability approaches to poverty, Ager and Strang's (2008) refugee integration framework, social exclusion theory, and Kuhlman's (1991) comprehensive theoretical model for economic integration of refugees.

To provide a more comprehensive picture of the outcome variable, poverty was conceptually defined using both monetary and capability approaches. In the monetary approach to poverty, households or individuals are classified as poor if their income or expenditures are lower than pre-defined poverty lines (Haughton & Khandker, 2009). The capability approach to poverty looks beyond households' or individuals' income or expenditures with the aim of including human development indicators such as education (Conceição et al., 2019). In the capability approach to poverty, different aspects of deprivation in life and dimensions of welfare are measured using a multidimensional index (Laderchi et al., 2003). Among the widely used multidimensional indices based on this approach is the global Multidimensional Poverty Index (MPI) designed by Alkire and Santos (2010). This index measures poverty in three dimensions: education, health, and standards of living (Alkire & Santos, 2010). An adjusted version of the MPI, measuring

households' deprivation in education, health, and housing together with an income poverty index were used in this study to measure poverty.

The risk factors in this study were conceptualized based on Ager and Strang's (2008) framework and social exclusion theory. Ager and Strang (2008) discuss refugees' integration in their new countries using four key domains and 10 indicators. This framework summarizes factors associated with refugees' integration and according to social exclusion theory, these factors could also be linked to poverty among refugees. Social exclusion theory posits that exclusion can result in poverty, unemployment, and deprivation (Silver, 1995); therefore, integration (i.e., inclusion) can be concurrent with less poverty and deprivation. Ager and Strang's (2008) refugee integration framework maps refugees' successful integration through their access to employment, education, health, and housing (markers and means); their citizenship and rights (foundation indicators); their social connections including bonds, bridges, and links (social connection indicators); and their language, cultural knowledge, and stability (facilitator indicators).

Finally, Kuhlman's (1991) theoretical model of refugee economic integration served as a framework for categorizing the identified risk factors. Kuhlman's model proposes six categories of indicators of refugee economic integration: 1) demographic characteristics, 2) flight-related characteristics, 3) host-related characteristics, 4) policy characteristics, 5) residency characteristics, and 6) non-economic aspects of adaptation.

Methods

The methodology used in this study consists of three elements: a systematic review of literature on risk factors for poverty among adult refugees, an inductive

analysis of qualitative data collected through semi-structural interviews with key informants, and a secondary analysis of a national dataset on refugees. This multi-method approach provided an opportunity for data triangulation. Factors associated with poverty among refugees within the first five years of their arrival to the country which were cited in at least two empirical studies. were explored further using qualitative and quantitative analyses. The focus of the study was on refugee poverty and factors impacting this problem in the short-term, specifically the first five years of refugees' life in the United States.

Systematic Literature Review

A systematic review of the literature was conducted online on April 9, 2020 in three major bibliographical social science databases including Web of Science Core Collection, PsycInfo, and Applied Social Sciences Index and Abstracts (ASSIA) to identify documented risk factors for poverty among adult refugees within the first five years of their arrival in the United States. In addition to these three databases, the online archives of the Migration Policy Institute (MPI), the Office of Refugee Resettlement (ORR), and the Urban Institute were searched using keywords related to "refugee," "poverty," "education," "health," "housing," "citizenship," "social connections," "English language proficiency," and "length of residency" with filtering for publication dates after January 2000 and language as English.

Among the retrieved studies, only empirical research studies reporting at least one factor associated with poverty (income poverty or deprivation in education, health, and housing) among adult refugees within the first five years of their arrival in the United States were included. Studies on refugees in countries other than the United States,

publications on mixed populations (e.g., immigrants and refugees) without separate outcome data on refugees, studies on refugee poverty beyond the first five years of their arrival in the country, and studies on refugee children were excluded.

Qualitative Data

Qualitative data for this study was collected through semi-structured interviews with 10 key informants who had between two and twenty-six (mean=10, S.D= 7.3) years of experience in working with refugees as a direct service provider or a researcher. After receiving an Institutional Review Board approval from Florida International University, purposive and snowball sampling methods were used to recruit a sample of at least seven key informants (Creswell & Poth, 2018) through contacting three major resettlement organizations and referral from interviewees. All interviews were semi-structured (Jamshed, 2014), allowing main questions based on an interview guide and probes when needed.

Interviews lasted 30 and 60 minutes, during which interviewees were asked to talk about their work experience; refugees that they worked with; and their perspective about factors associated with refugee poverty including income poverty and multidimensional poverty (deprivation in education, health, and housing). While asking about factors associated with refugee poverty, terms like citizenship, length of residency, English language proficiency, and social network were used as probes. All interviews were conducted by phone between June and September 2019 and were audio-recorded.

All audio-recorded interviews were transcribed verbatim and analyzed using the Braun and Clarke (2006) thematic analysis method. In this context, transcribed interviews were reviewed multiple times in search of patterns and connections to create codes

(Braun & Clarke, 2006). The created codes, together with the relevant text excerpts, were entered into a thematic matrix and similar codes were merged (Ritchie & Lewis, 2003). Codes were reviewed multiple times to merge parallel excerpts and generate themes. For each theme at least two direct quotes from the transcribed interviews were selected to establish the relationship between findings and the collected data. Negative case analysis was used to enhance the rigor of the qualitative analyses.

Quantitative Data

The 2016 Annual Survey of Refugees (ASR) was used for secondary analysis in this study. The 2016 ASR dataset was collected through a national survey using stratified probability sampling and interview with 1,500 principal applicants for refugee status who arrived in the United States between fiscal years 2011 and 2015 (Triplett & Vilter, 2018). In these interviews each principal applicant replied to questions about self-sufficiency and demographic characteristics for all adult members of the household, age 16 and above (Triplett & Vilter, 2018).

Income poverty and multidimensional poverty were the dependent variables in this study. Income poverty was a binary variable, separating "non-poor" from "poor" households by comparing households' income for each household size with the national poverty lines. Multidimensional poverty was a binary variable, separating "non-poor" households from "poor" households using a multidimensional poverty index. The multidimensional poverty index in this study was defined based on the global Multidimensional Poverty Index (MPI) with three equally weighted dimensions: education, health, and housing.

In the education dimension, a binary indicator at the household level was defined to separate households who had at least one adult member who had not completed 11 years of schooling upon arrival in the United States and had not attended an educational program after arrival in the country as educationally "poor" (code 1). All other households were classified as "non-poor" (code 0). In the health dimension, deprivation was calculated based on two equally-weighted binary variables. The first variable classified households as "poor" by assigning a code of 1 to households that had at least one adult member with a chronic health condition. The second variable in this dimension classified households who had at least one member unable to work due to poor health or disability as poor (code 1). All other households were classified as "non-poor" (code 0) in this dimension. In the housing dimension, households were classified as "poor" by a code of 1 if they were living in a public housing project at the time of the interview. All other households were classified as "non-poor" by a code of 0 in this dimension. This multidimensional poverty index is summarized in Table 4.1. Households with a cumulative deprivation score of 33% or more in the education, health, and housing dimensions were classified as multidimensionally poor and all other households as non-poor.

Table 4.1. Multidimensional poverty index of the study: indicators and weights

Dimension	**Indicator**	**"Poor" if…**	**Relative Weight**
Education	School attainment	A household member has not completed 11 years of schooling or equivalent and has not enrolled in schooling	33%
Health	Self-reported health	A household member reported chronic health condition	16.5%
		A household member was not able to work due to poor health condition or disability	16.5%
Housing	Living in a public housing project	Household was living in a public housing project at the time of the interview	33%

Sex, ethnicity, access to transportation, discrimination, resettlement policies, English language proficiency, and social connections were the independent variables based on the study's conceptual framework and available data in the dataset. Sex and ethnicity were categorical variables based on the self-reported data on sex (male: code 0, female: code 1) and ethnicity (Cuban: code 0, Chinese:1, Arab: code 2, Chaldean: code 3, Karen: code 4, Lhotsampa [a group of refugees from Nepal and Bhutan]: code 5, Bhutanese: code 6, Siryac [a group of refugees from Iraq]: code 7, Nepalese: code 8, and Other: code 9) of the heads of the households in the dataset. English language proficiency was quantified using a binary variable, separating households with members who all could speak English "well" or "very well" by a code of 0 from those who had at least one member who could not speak English well or very well at the time of the interview by a code of 1.

Using Stata version 15 (StataCorp, 2017), the Pearson's chi-square test was conducted to measure bivariate correlations between poverty (income poverty and multidimensional poverty) and each of the independent variables and Cramer's V test was used to measure the strength of these associations.

Results

Systematic Review of the Literature

The systematic search found 779 unique studies of possible relevance after removing 119 duplications. Among the reviewed studies, 30 discussed at least one risk factor for income poverty and 57 cited at least one risk factor for multidimensional poverty (deprivation in education, health, and housing) among adult refugees in the

United States, with a total of 84 unique studies. Among these studies only 31 explored poverty (income poverty or deprivation in education, health, and housing) among refugees within their first five years in the United States. Sex, ethnicity, access to transportation, discrimination, resettlement policies, English language proficiency, and social connections were the extracted factors that were cited in at least two studies (Table 4.2.). A few studies also referred to the age of the head of households (Griffiths & Loy, 2019), length of residency (Nadeau, 2008), acculturation (Ejike et al., 2020), and lack of access to information (Lor et al., 2018) as factors associated with poverty among refugees within the first five years of their arrival in the United States.

Table 4.2. Extracted factors from the systematic literature review

Factors associated with poverty	**Income poverty**	**Multidimensional poverty** (deprivation in education, health, and housing)
Sex	Capps et al. (2015); Franz (2003); Gowayed (2019); Griffiths & Loy (2019)	Alnaeemi (2018); Capps et al. (2015)
Ethnicity	Capps et al., (2015); Kallick & Mathema (2016)	Alnaeemi (2018)
Access to transportation	Alnaeemi (2018)	M'zah et al. (2019); Swe (2009)
Discrimination	Alnaeemi (2018); L. Anderson et al. (2014)	Hadley & Patil (2009)
Resettlement policies	Bonet (2016); Chen & Hulsbrink (2019); Gowayed (2019)	
English language proficiency	Alnaeemi (2018); C. Anderson (2019); L. Anderson et al. (2014); Arafah (2016); Sienkiewicz et al. (2013)	Al-Obaidi et al. (2015); Hadley & Patil (2009); Lor et al. (2018); Miller et al. (2002); Power & Pratt (2012); Sastre & Haldeman, (2015); Swe (2009); Worabo et al. (2016)
Social connections	Gowayed (2019); Nadeau (2008); Savage (2014); Sienkiewicz et al. (2013)	Alshadood et al. (2018); Ao et al. (2016); Hagaman et al. (2016); Kingsbury et al. (2019); LeMaster et al. (2018); Rana et al. (2011); Wieland et al. (2015)

Key Informant Interviews

Qualitative analyses were conducted using the data collected from the semi-structured interviews with 10 key informants. The key informants had between two and twenty-six (mean=10, S.D= 7.3) years of experience including direct work with refugees at the time of the interview. Interviewed key informants were service providers at the managerial level of refugee-serving organizations (n=8) and researchers (n=2).

The inductive analyses of the qualitative data found evidence affirming links between poverty and the factors extracted through the systematic literature review: sex, ethnicity, access to transportation, discrimination, resettlement policies, English language proficiency, and social connections (Table 4.3). Key informants also referred to links between poverty among refugees and shorter periods of residency in the United States, lack of access to accurate information, and lack of access to affordable childcare.

Table 4.3. Extracted factors associated with refugee poverty

Classification of associated factors with poverty	**Identified factors**	**Systematic review**	**Qualitative analyses**	**Quantitative analyses**
		% (#) of studies that referred to the risk factor	% (#) of key informants referring to the risk factor	Statistical significance of the bivariate analysis between income/ multidimensional poverty and the risk factor
Demographic characteristics	Sex	16% (5)	50% (5)	Significant/ Not significant
	Ethnicity	10% (3)	50% (5)	Significant/ Significant
Host-related characteristics	Access to transportation	10% (3)	70% (7)	Not measured due to lack of data
	Discrimination	10% (3)	30% (3)	
Policy characteristics	Resettlement policies	10% (3)	100% (10)	Not measured due to lack of data
Non-economic aspects of adaptation	English language proficiency	42% (13)	100% (10)	Significant/ Significant
	Social connections	35% (11)	100% (10)	Not measured due to lack of data

Demographic Characteristics of the Surveyed Households

The demographic characteristics of the surveyed households in the dataset are shown in Table 4.4. The majority of the surveyed households in this dataset were male-headed, were of working age (19-60), and self-identified as Arab or from other ethnicities.

Table 4.4. Characteristics of the surveyed households

Characteristics	**Subgroups**	**Distribution in percentage (number of households)**
Sex of the head of the household	Male	73% (1,096)
	Female	27% (404)
Age of the head of the household	18 and under	0.5% (5)
	19 – 30	19% (288)
	31 – 40	34.5% (516)
	41 – 50	20% (299)
	51 – 60	11% (170)
	61 – 70	5% (78)
	71 and above	10% (144)
Ethnicity of the head of the household	Cuban	4.93% (74)
	Chinese	6.87% (103)
	Arab	22.53% (338)
	Chaldean	7.80% (117)
	Karen	6.60% (99)
	Lhotsampa	3.33% (50)
	Bhutanese	4.07% (61)
	Siryac	1.93% (29)
	Nepalese	2.87% (43)
	Other	39.07% (586)

The bivariate cross-tabulation analyses are shown in Table 4.5 and discussed further in the next section, which synthesizes the findings of all three methodologies.

Table 4.5. Results of the bivariate cross-tabulation analyses

	Dependent variable chi-square, *p*-value, (Cramer's V)	
Independent variable	Income poverty	Multidimensional poverty
Sex	$\chi2(1)= 4.68$, $p= .030$, (0.06)	$\chi2(1)= 1.45$, $p= .228$ (0.03)
Ethnicity	$\chi2(9)= 49.46$, $p= .000$, (0.18)	$\chi2(9)= 84.89$, $p= .000$ (0.24)
Lack of English language proficiency	$\chi2(1)= 7.36$, $p= .007$, (0.07)	$\chi2(1)= 186.8$, $p= .000$, (0.35)

Note: Cramer's V≤ .1: weak, Cramer's V >.1 & ≤.: moderate, Cramer's V≥.5: strong; *p*-value ≤.05: statistically significant, *p* value >.05: not statistically significant

Factors Included in the Multidimensional Poverty Framework

Sex. Franz (2003) found that job placement programs through resettlement agencies for refugees in the United States may favor the employment of men since the majority of these agencies have contracts with companies and factories offering labor-intensive jobs. Overall, the employment rate of refugee women is lower than that of men and they are less likely to be educated, specifically within the first five years of living in the United States (Kallick & Mathema, 2016; Office of Refugee Resettlement [ORR], 2017). Halpern (2008) and Potocky-Tripodi (2003) linked women's lower rate of participation in the labor market to their family responsibilities, preventing them from working outside of the home for long hours a day. Gowayed (2019) suggested that lower employment rates for women can create an opportunity for them to attend training courses. However, such opportunity does not seem to help refugee women achieve self-sufficiency at a similar rate as men at least in the short-term, as the retrieved studies in this systematic review found links between being female and poverty among refugees (Alnaeemi, 2018; Capps et al., 2015; Franz, 2003; Gowayed, 2019; Griffiths & Loy, 2019).

In line with the findings of the literature review, key informants stated that refugee women are less likely to be employed and educated compared to men due to cultural and religious barriers and family responsibilities including childcare. The CEO of a refugee-serving organization stated that employment for refugee women has been "extremely extremely extremely challenging" since most of the families have young children and women are expected to stay home and look after them. She added, "A couple of the women have told me that their husbands really don't want them to work. . .

you know for cultural and religious reasons their husbands prefer them to stay home and not work outside of the home." A key informant working on refugees' education referred to lack of access to affordable childcare as a barrier to access education for women, she said, "If you have little kids, you should find childcare and there is a lot of classes around Austin that are free, but there is no free childcare. . . . To go to the classes, they have to find childcare."

Only 27% of the surveyed households were headed by women. Bivariate cross-tabulation analyses showed that female-headed households were more likely to experience income poverty ($\chi^2[1]= 4.68$, $p= 0.030$, Cramer's V= 0.06), but the relationship between sex and multidimensional poverty (deprivation in education, health, and housing) was not statistically significant.

Ethnicity. Some studies found a relationship between refugees' ethnicity or their country of origin and economic integration in the United States, suggesting that specific groups tend to have worse economic outcomes (Capps et al., 2015; Halpern, 2008; Kallick & Mathema, 2016; Potocky-Tripodi, 2003). For example, Capps and colleagues (2015) found that refugees from Iraq, Somalia, and Cuba tended to have lower median incomes compared to refugees from other countries despite their longer residency in the United States and Halpern (2008) reported lower employment rates for refugees from Southeast Asia compared to refugees from Eastern Europe. Moreover, Alnaeemi (2018) and Hooper and colleagues (2016) reported missed opportunities of education for certain groups of refugees due to their lack of access to education in their countries of origin.

Refugees' country of origin in general and their ethnicity specifically were also discussed as risk factors of poverty by key informants. Key informants referred to lack of

access to education among stateless people such as the Rohingyas from Myanmar and certain oppressed groups such as Afghan women during the rule of the Taliban, or Pashtuns from Afghanistan who did not have access to education in their native language. A program officer working at a refugee resettlement organization said, “The Rohingya refugees . . . are stateless, which means that they had no rights in Burma or Myanmar to have education, to attend school. . . . So, they are not as educated, because of the [lack of] equal access to education.” A key informant working on refugees' education explained:

> Those from Afghanistan . . . the females, the mothers, because they come from a generation that they were raised in the time of Taliban, they are not educated, and they are actually passionate and wanted to learn, but they couldn't go to school. . . . The one thing that I noticed especially with the population from Afghanistan, especially with Pashtuns, they don't know how to read and write in their [native] language . . . you see other people have a dictionary, but they cannot . . . they had no schooling in their [native] language.

Bivariate correlational analyses found statistically significant associations between income and multidimensional poverty and ethnicity of the head of the households (income poverty: $\chi^2[9]= 49.46$, $p= 0.000$, Cramer’s V= 0.18, multidimensional poverty: $\chi^2[9]= 84.89$, $p= 0.000$, Cramer’s V=0.24) among refugees. Refugees who self-identified as Siryac (Christians from Iraq, Syria, Iran, Turkey, Lebanon, Jordan, Palestine, and Israel) and Nepalese had the highest income and multidimensional poverty rates and those who self-identified as Chinese and Cuban had the lowest income and multidimensional poverty rates.

Access to transportation. Public transportation systems are lacking or insufficient in many communities in the United States. This may create a huge barrier for the mobility of newly arrived refugees with limited access to resources and no credit history to purchase an automobile. In a qualitative study by Alnaeemi (2018) of Kurdish/Middle Eastern refugee women in the United States, all participants cited lack of access to transportation as a barrier to securing a job. Transportation was also among the most frequently cited challenges in an exploratory study on refugee economic self-sufficiency by Halpern (2008). Moreover, evidence exists to suggest transportation as one of the most significant barriers to health care among refugees (Edward & Hines-Martin, 2015; Elwell et al., 2014; Kensinger et al., 2007; M'zah et al., 2019; Schuster et al., 2019; Swe, 2009).

The majority of the key informants believed that the lack of transportation is a major barrier to employment for refugees and is linked to poverty. A key informant and researcher in the field of forced migration explained that sometimes refugees cannot accept a job that they want simply because of their lack of access to transportation: "[They] cannot even go to work, because of transportation issues." A key informant working at a resettlement organization in a Texas city explained that many refugees have to move to areas outside the city when their 90 days of financial assistance ends to be able to afford the rent cost, but many have to struggle with "less options" for public transportation, hindering their access to services. She added:

> There is a very good ESOL class in [the city], but the transportation is always the issue, a lot of times you see families cannot afford living in [the city] because it's really expensive and they are arriving to [the city] then they have to figure out to

> move somewhere around [the city], but there is no buses coming to [the city], so that is the part that I have seen that a lot of families, you know, stop. Classes are available for them, services are available for them, specifically for refugees, but they cannot get there, simply like that. There is no transportation for them to get there.

Discrimination. In the United States, several studies report different forms of discrimination against immigrants and refugees, including but not limited to xenophobia and racism (Potocky & Naseh, 2019; Segal & Mayadas, 2005; Yakushko et al., 2008). Evidence suggests that discrimination plays an important role in preventing refugees from obtaining employment (Jamil et al., 2012; Takeda, 2000). Studies also found a link between discrimination and worse health outcomes and healthcare among refugees (Fang & Baker, 2013; Hadley & Patil, 2009; Kim, 2016; Mehta et al., 2018; Sangalang et al., 2019).

Key informants also attested that the problem of discrimination against refugees exists: "They are kind of experiencing discrimination soon after they arrive, so they are having kind of additional sort of barriers and challenges." One key informant referred to the systematic exclusion of refugees from equal access to the labor market, explaining that refugees are expected to have and sometimes are pushed to accept minimum-wage jobs:

> I think it [poverty] is kind of a discrimination I have to say. It's a more structure or systematic issue than just, you know, a matter of time. . . . When we even want to sell the ideas about welcoming refugees, people talk about the jobs that they get

> are the jobs that Americans wouldn't take, you know, so I think that's kind of our systems, that is the expectation from refugees.

Resettlement policies. Several studies found that the emphasis on finding a job as soon as possible can trap refugees in minimum-wage jobs, which require long hours of work to make ends meet; consequently, refugees are left with no time to invest on their human capital such as learning English or continuing their education (Birman & Trickett, 2001; Bonet, 2016; Chen & Hulsbrink, 2019; Gowayed, 2019; Shutes, 2011).

All key informants attributed part of the poverty and deprivation among refugees to resettlement policies. They explained that since refugees only receive financial assistance for the first three months, the informants have to encourage them to accept any available job to be able to survive after this period: “We do tell all of our refugees and relief societies the most important thing is to get them [refugees] to work.” In this context, a key informant and researcher in the field of forced migration explained that the necessity of finding a job upon arrival can force refugees to accept a low-paid job and some might not be able to get out of that and the poverty caused by it:

> People that come to the US typically have to go through very low wage jobs, as you know, that kind of, the first and immediate choice, but you may or may not really want that, you know, the best choice versus to take no matter what, I think the resettlement agencies are sometimes, just, you know, kind of sort of pushing in a way, of course, out of good intention. I think a lot of people cannot get out of that.

Likewise, a key informant working with survivors of torture explained that the urgency of finding a job leads to starting with low-paid jobs and this can cause

deprivation in different aspects of life even if refugees sustain a minimum income by working long hours a day:

> The refugee program provides assistance for 90 days, after 90 days, you have to be economically self-sufficient, the only way for you to be economically self-sufficient is to have one or two jobs and there is, there is no, there's no way in there, no capacity building, they are exhausted, that's why my male clients tell me that, after they come home, all they can do is to sleep, because the 12-13 hour shifts a day that they need to do, to be able to sustain their family, it doesn't allow them time for anything and, so, I have some clients that arrived here as refugees, have been here three years, and they haven't had a chance to do anything and they've not even learned the language.

English language proficiency. In the reviewed studies, refugee poverty has been largely associated with a lack of English language proficiency. A lack of English language comprehension has been cited as a barrier to refugees' employment (Alnaeemi, 2018; L. Anderson et al., 2014; Kensinger et al., 2007; Yost & Lucas, 2002), self-sufficiency (C. Anderson, 2019), and access to education (Hooper et al., 2016) and healthcare (Al-Obaidi et al., 2015; Banke-Thomas et al., 2019; Edward & Hines-Martin, 2015; Elwell et al., 2014; Kensinger et al., 2007; Linck & Osman, 2016; Miller et al., 2002; Mirza et al., 2014; Power & Pratt, 2012; Sastre & Haldeman, 2015; Schuster et al., 2019; Swe, 2009; Vermette et al., 2015). Limited English language comprehension has been also discussed as a risk factor for health issues such as somatic distress (Brown et al., 2010), depression (Cummings et al., 2011), mood disorder (Kim, 2016), higher rates of PTSD (Marshall et al., 2005), and hunger (Hadley & Patil, 2009). Moreover, studies

suggest a link between English language proficiency and employment (Arafah, 2016; Hooper et al., 2016; Sienkiewicz et al., 2013), financial independence (Haffejee & East, 2016; Sulaiman-Hill & Thompson, 2013), better health status (Nies et al., 2018), and access to healthcare services (Hunter-Adams et al., 2018) among refugees after their resettlement in the United States.

Key informants unanimously affirmed that a lack of English language proficiency is among the main barriers to refugees' economic integration and wellbeing in the United States. For instance, a key informant working with survivors of torture said, "One of the main factors that have facilitated them [refugees] to self-sufficiency has been really the language," and a key informant working at a managerial level of a resettlement agency explained:

> Somebody who is educated, like coming on SIV [Special Immigrant Visa] status, for instance, an Iraqi or Afghan who worked for the US Embassy, you know, they might have worked as an interpreter. So, for them it might be easier to get a job because they have interpreted Dari or Farsi to English, so they don't have that language barrier. . . . I think the first year is hard, but by year five, the people that have learned English fluently, they are less likely, you know, they are more likely, to succeed and have better jobs, but the people who have never learned English properly. . . . Ya, I can say they will always have these low-income jobs, which contributes to poverty.

Key informants also mentioned that refugees often need help to make medical appointments and referred to challenges in using an interpreter for healthcare services:

> I've been in, like accompanied, an individual to a doctor appointment and the doctor wasn't talking to the client, he was talking to the interpreter, so, it's, it was, just very challenging to have the communication be streamlined. . . . And, so, the doctor, also, kind of, getting flustered. . . . Usually, the doctor is only, like is, 15 minutes in the room, and, so, yeah, it was just very different and noticing that interpretation was maybe not accessed in the best way. . . . So, I think, culturally sensitive language access [is important] so, that they [refugees] are not in poverty, like in health literacy and understanding about what's important.

As suggested by the previous studies and affirmed by key informants, correlational analyses found significant associations between lack of English language proficiency and multidimensional poverty. Households with members with at least one member who could not speak English well or very well were more likely to be income poor ($\chi^2[1]= 7.36$, $p= 0.007$, Cramer's V= 0.07) and multidimensionally poor ($\chi^2[1]= 186.81$, $p= 0.000$, Cramer's V=0.35) compared to those with members who all could speak English well or very well. Less than half of households (38%, n= 569) had members who all could speak English well or very well at the time of the data collection.

Social connections. Refugees' social network has been cited is several studies as a source for finding employment (Birman & Trickett, 2001; Gowayed, 2019; Hooper et al., 2016; Hume & Hardwick, 2005; Nadeau, 2008; Sienkiewicz et al., 2013; Takeda, 2000). Studies also found a link between refugees' lack of social network and poor healthcare utilization (Alshadood et al., 2018), suicidal ideation (Ao et al., 2016; Hagaman et al., 2018), poor health outcomes (Berthold et al., 2019; Dixit et al., 2018; LeMaster et al., 2018), and depression (Cummings et al., 2011).

Key informants confirmed that refugees' social connections could be an important protective factor against poverty. They discussed refugees' social bonds and affirmed that such connections can help refugees in finding a job. A key informant and researcher in the field of forced migration said, "It [social connection] is almost 90 percent of the time, I would say, how people find and secure their jobs. . . . That's [social connection] really the critical piece of job security, of course, you know, a lot of people just rely on each other." Key informants explained refugees who arrived earlier tend to help newly arrived refugees from their similar ethnic group in securing a job and integration, resulting in better economic outcomes for some groups of refugees:

> There is a lot of Afghanis there is a lot of Burmese, there is a lot of different ethnic groups. For those group there is a lot of opportunities. I know the Afghanis, there was a restaurant that lot of the Afghanis would work in, the restaurant was owned by an Afghani, or a gas station owned by other Muslims, they would meet at mosques, So I think for them it was a lot easier or for Arab speaking, you know they meet at the mosque and there is job opportunities for them for Syrian refugees or Iraqi refugees.

According to the key informants, refugees' social bonds can enhance their mental health and provide a chance for some to attend training courses: "Some families started to create their own networks. Two of the women drive and their husbands stay at home and watch the kids, while they attend classes outside of the home." Another key informant explained:

> If they have a really strong connection, where they are able to engage freely with that group, without the concern of having to learn English, if they don't feel the

pressure. . . it might alleviate some of the areas of poverty whether its financial or whether it's emotional.

The qualitative data suggest that building social bridges or links might be hard for refugees and explained that refugees' social links are usually limited to their connections with their resettlement organizations, which can be very important to their wellbeing and self-sufficiency. A key informant at the managerial level of a resettlement organization said, "It is really up to us to try to build some connections for them through a lot of different outreach programs." A key informant working at a resettlement organization referred to the job fairs at her organization and said: "We host job fairs here and then employers can meet with numerous clients, I think last week we had a job fair here, like seven out of ten [refugees] were hired."

Two of the key informants referred to social media as a tool helping refugees build social connections. For instance, one of the key informants mentioned, "I think with social media [building social connections] is getting easier, because they're [refugees] able to have groups around the country." And, another interviewee said, "They have like a messenger group, they have a Facebook group. Every time I let one family knowing [about an event] and immediately a lot of families coming [to the event]."

Factors not Included in the Multidimensional Poverty Framework

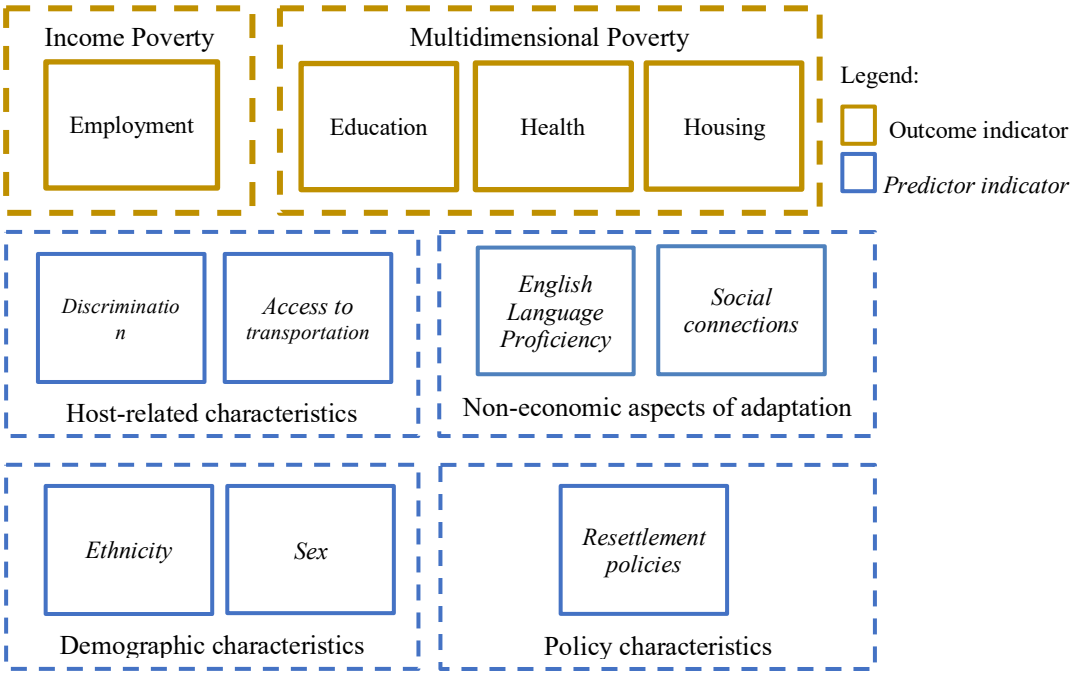
Although the length of residency and citizenship were part of the conceptual framework of the study, the data did not support a link between refugee poverty and these two factors. Only one study referred to a link between poverty and length of residency within the first five years of refugees' arrival in the country (Nadeau, 2008) and the opinion of key informants about such a relationship was divided. None of the reviewed

studies suggested a link between refugee poverty and their application for permanent residency or citizenship and none of the key informants talked about this connection although prompted to.

A Multidimensional Poverty Framework

The identified risk factors for refugee income poverty and multidimensional poverty, based on the triangulation of three data sources (a systematic literature review, qualitative data collection and analyses, and secondary analyses of a national cross-sectional survey) were grouped into four categories based on Kuhlman's (1991) comprehensive theoretical model for economic integration: 1) Demographic characteristics, 2) host-related characteristics, 3) policy characteristics, and 4) non-economic aspects of adaptation (Table 4.3.) to form the proposed multidimensional poverty framework of this study (Figure 4.1.).

Figure 4.1. A Multidimensional Framework for Refugee Poverty



This framework suggests that refugee poverty at a household level including income poverty and deprivation in education, health, and housing is linked to refugee households' demographic characteristics (sex and ethnicity of the head of the household), policy characteristics (resettlement policies), host-related characteristics (discrimination and access to transportation), and non-economic aspects of adaptation (English language proficiency and social networks).

Discussion

This study used three data sources to present a multidimensional poverty framework for adult refugees with a specific focus on the first five years of their life in the United States. Factors associated with poverty were initially identified through a systematic literature review and further explored through qualitative and quantitative data analyses.

Several factors were found to be associated with refugee poverty and included in the poverty framework. Sex and ethnicity as demographic characteristics are part of these factors. The connection between being female and lower employment rates and educational attainment could be partly explained by cultural sensitivities, gender roles, and family responsibilities. Surprisingly, the correlation between sex of the head of the household and multidimensional poverty was not statistically significant, which requires further investigation. One explanation could be more targeted assistance programs for female-headed households compared to male-headed households, making them less vulnerable to experience multidimensional poverty. Another explanation might be that the low-wage job market may favor female workers over males. Although briefly explored in the literature and indirectly referred to by the key informants, ethnicity

proved to have statistically significant correlations with both income and multidimensional poverty of the surveyed households.

Lack of access to transportation and discrimination were included in the framework under the host-related characteristics. Associations between these two factors and poverty among refugees were only explored through the retrieved studies from the systematic literature review and interviews with the key informants. Likewise, current policies were included in the framework as part of the policy characteristics, but the connection between this factor and poverty was only explored through the systematic literature review and interviews with key informants.

Lack of English language proficiency was by far the leading cited risk factor of poverty among refugees in the literature. The reviewed studies suggested that lack of English language comprehension can limit refugees' access to the job market, health services, and educational opportunities (Alshadood et al., 2018; Ao et al., 2016; Gowayed, 2019; Hagaman et al., 2016; Kingsbury et al., 2019; LeMaster et al., 2018; Nadeau, 2008; Rana et al., 2011; Savage, 2014; Sienkiewicz et al., 2013; Wieland et al., 2015). Key informants also unanimously agreed that English language proficiency plays an important role in refugees self-sufficiency and welfare and correlational analyses of the study affirmed this relationship.

Lack of social connections was also found to be associated with poverty among refugees and was included in the framework together with lack of English language proficiency as part of the non-economic aspects of refugees' adaptation. Due to the limitations of the selected quantitative dataset, exploring the correlations between social connections and income and multidimensional poverty among refugees was not possible.

However, evidence collected through the literature and key informants' opinion about the importance of social connections in refugees' wellbeing and self-sufficiency was clear and undivided.

The relationship between poverty and length of residency and citizenship in the reviewed literature was complex and only partial evidence was found to support a relationship between these factors in the first five years of refugees' arrival in the country; therefore, these two factors were not included in the multidimensional poverty framework of the study.

The proposed framework provides a logical model summarizing factors that shape parts of the trajectories of poverty among adult refugees within the first five years of their arrival to the country. This framework does not aim to be an inclusive tool explaining the complex problem of poverty; rather it presents a logical model providing an opportunity for further exploration. The proposed framework includes characteristics of human development and human capital by using a multidimensional poverty index based on the capability approach to poverty in addition to the commonly used income poverty index in line with the monetary approach to poverty. The presented multidimensional poverty framework for refugees suggests that poverty among refugees in the first five years of their lives in the United States is linked to their demographic factors including sex and ethnicity of the head of the household, resettlement policies, host-related characteristics including discrimination and access to transportation, and non-economic aspects of refugees' adaptation including English language proficiency and social networks.

The proposed multidimensional poverty framework is in line with the conceptual framework of the study and to a large extent supports Ager and Strang's (2008) refugee

integration framework and Kuhlman's (1991) comprehensive theoretical model for economic integration of refugees. The multidimensional poverty framework of this study further advances the work of Ager and Strang (2008) and Kuhlman (1991) by providing a multidimensional perspective on the problem of poverty among refugees. In the proposed framework of this study, important factors in human development such as refugee households' education, health, and housing are explored in addition to households' income to create a more comprehensive framework for explaining refugees' welfare and economic integration. Moreover, the proposed multidimensional poverty framework of the study focuses on a specific time period, encouraging service providers and policymakers to address the problem of poverty before it turns into chronic poverty over an extended period of time.

Conclusion and Implications

The results show a need for further attention to female-headed refugee households and refugees from oppressed groups who might experience higher rates of income and multidimensional poverty after arrival in the United States. In many cultures, women are raised to be caretakers and stay at home; these women as heads of the households might experience further exclusion and challenges under the resettlement policies that emphasize finding a job within the first 90 days of arrival in the United States. As Franz (2003) discussed, most of the mainstream and readily available jobs for refugees might result in the exclusion of women. The majority of refugees who arrive in the United States including female-headed households are among the most resilient people and are willing to start a new life. Resettlement policies should more explicitly address gender to help women find jobs that match their skills and ability. Women with younger children

might need jobs with flexible working hours or home-based occupations. Similarly, refugees from oppressed groups might need further help to be able to start a life in this country. For example, refugees who did not have access to education and arrived here illiterate in their native language might need further help to learn English.

Both the literature and the key informants criticized the resettlement policies in pushing refugees to accept a job within 90 days after arrival to the country and suggested a link between these policies and refugee poverty. The aim of this current practice and policy is to help refugees achieve self-sufficiency, but this short-term approach neglects the long-term consequences of lost opportunities. Key informants also discussed that the expectation from refugees is to take minimum-wage jobs; this expectation clearly denies refugees' equal access to the American economy and is evidence of systematic discrimination. In addition to criticizing the current policies, the literature suggested a link between discrimination and higher poverty rates among refugees. Discrimination in the job market and lack of opportunities for accessing higher-income jobs might one of the biggest contributors to poverty among refugees. Social workers as front-line service providers for refugees are well-positioned to advocate for the reevaluation of resettlement policies and incorporation of long-term perspectives in service provision for this group.

Equal access to the job market and opportunities for investment in human capital also requires a certain level of mobility and access to transportation. Due to a lack of financial resources and credit history, refugees often cannot afford a car early after arrival in the country. Moreover, they usually don't have friends or family who can give them rides. Helping refugees receive their driver's license and finding resources such as loans

or donations to buy a car could be an important step out of poverty. Some refugees, especially women, might need help to learn to drive as well.

After arrival in the country, English language learning is encouraged and free-of-charge classes are available, but the highest priority is placed on securing a job and achieving self-sufficiency as soon as possible (Halpern, 2008). Refugees cannot postpone employment to create time to learn the language and, consequently, in the long-term, many are trapped in low-paid jobs with no prospects for finding better opportunities due to lack of English language proficiency. There should be more time for learning English after arrival in the country and more emphasis on the importance of this factor in resettlement programs. Moreover, the format of the available English learning classes should be adopted to the unique needs of refugees, female-headed households with young children might need in-home English language tutoring, men who are working long hours each day might need online classes, refugee households who are illiterate due to lack of or limited access to education in their home countries might need literacy classes and more help in learning the English language.

Findings suggested a link between poverty and lack of social connections among refugees. Key informants briefly referred to the role of social media in keeping refugees engaged and connected. With further investigation and more evidence on the impacts of social media, this tool can be promoted by resettlement organizations to help refugees build social connections. Key informants also referred to the role of the resettlement organizations in enhancing refugees' social connections. Resettlement organizations are not generally mandated to help refugees build their social capital, but the findings of this

study call for further attention and investments in resettlement agencies' outreach activities, aiming to help refugees create better social bonds, bridges, and links.

The findings of this study contribute to the limited literature on poverty among refugees and factors associated with this problem early after resettlement in the United States. Further studies are needed to validate the structure of the proposed multidimensional poverty framework and selected associated factors with refugee poverty in this framework. There is also a clear need to explore factors with partial evidence that were not included in the framework such as length of residency and refugees' rights and citizenship. This study aimed to present a framework, creating an opportunity for further studies and debate in the field of refugee poverty with a specific focus on the early years of their life in the United States.

Limitations

The conducted systematic review and quantitative analyses were limited to published studies and available data in the 2016 ASR. This limitation might have excluded possible factors associated with poverty among refugees. Moreover, this limitation did not allow correlational analyses between poverty and resettlement policies, lack of access to transportation, discrimination, and lack of social connections. The dataset of the study was based on a cross-sectional survey, a longitudinal dataset with data on poverty over the course of multiple years could have offered opportunities for more extensive analyses, specifically in terms of exploring the impact of resettlement policies. Furthermore, results of the systematic literature review and qualitative data analyses might have bias since independent review and coding of qualitative data were not possible due to resource restraints.

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Chapter V: Conclusion

Overview of Major Findings

This dissertation is comprised of a set of three distinct yet connected studies. The first study, presented in chapter II, measured poverty among refugees within the first five years of their arrival in the United States. In this study poverty was quantified by the commonly used income poverty index and an adjusted version of the global multidimensional poverty index to capture a more comprehensive picture of poverty and deprivation among refugees. Calculated poverty rates were concerning; close to one in every four refugee households was income poor and more than half of the households were multidimensionally poor. A comparison between the income poverty index and the multidimensional poverty index using ROC analysis showed that income is not a good indicator to identify deprivation among refugee households.

In terms of multidimensional poverty, the most concerning deprivation rate was in the education dimension. In this dimension, over 60% of the surveyed households had at least one adult member who had not completed 11 years of schooling upon arrival to the United States and had not attended an educational program in the United States to earn an equivalent degree. Among refugees who arrived in the United States with less than 11 years of schooling, only around 18% were enrolled in an educational program. The low participation rate of refugees in the educational programs is partly caused by resettlement policies that push refugees to accept a job as soon as possible. Many refugees were deprived from the right to education in their home countries. Moreover, many have spent years in exile, after fleeing their countries of origin and before arriving in the United States, with no or limited access to education. Meanwhile, as an adult they are expected

to find a job within the first 90 days of their arrival in the United States, which can leave them with limited or no time for education.

In the second study, chapter III, weak associations were found between income poverty and shorter lengths of residency in the United States as well as between multidimensional poverty and refugees' lack of application for permanent residency. Lack of English language proficiency was found to have strong correlations with income and multidimensional poverty and was the best predictor of poverty among refugees in the multivariate models of the study. This finding is in line with the results of previously published studies in this field, suggesting links between lack of English language comprehension and lower employment rates (Arafah, 2016; Nawyn et al., 2012; Pellegrino, 2017; Sienkiewicz et al., 2013) or deprivations in education, health, or housing (Hadley & Patil, 2009; Lor et al., 2018; Miller et al., 2002; Swe, 2009; Worabo et al., 2016). Lack of English language proficiency could be a major impediment for refugees in accessing job market or educational programs, health services, or resources needed for minimum standards of living.

In the third study, chapter IV, factors associated with refugee poverty were further explored and results suggested that part of the problem could be linked to household characteristics including sex and ethnicity of the head of the households. This study also found that current resettlement policies can result in higher rates of poverty among refugees. The emphasis on starting a job as soon as possible pushes many refugee adults into readily available low-wage occupations and consequently income poverty and deprivation in different aspects of life. Findings also suggested links between poverty among refugees and host-related characteristics including discrimination and lack of

access to transportation as well as links between poverty and lack of English language proficiency and lack of social connections, which were grouped under non-economic aspects of refugees' adaptation.

The proposed multidimensional poverty framework in this study suggested that factors that shape parts of the trajectories of poverty among adult refugees within the first five years of their life in the country can be categorized into four groups: 1) Refugee households' demographic characteristics (sex and ethnicity of the head of the household), 2) policy characteristics (resettlement policies), 3) host-related characteristics (discrimination and access to transportation), and 4) non-economic aspects of adaptation (English language proficiency and social networks). The proposed multidimensional poverty framework of the study was formed based on the findings of the limited existing empirical research, qualitative data from interviews with key informants, and secondary analysis of nationally representative data on refugees, providing an opportunity for triangulation and verification. Therefore, it has a strong potential to be generalizable in similar settings.

Implications and Recommendations

This study was among the first to use a multidimensional poverty index with a nationally representative sample to capture a more comprehensive picture of poverty and deprivation among refugees in the United States. To my knowledge it is also the first to propose a multidimensional poverty framework with a focus on their first five years in the United States. Findings of the study have important implications for social workers since the profession of social work emerged as a response to the problem of poverty and addressing this problem has remained part of the mandate of the profession (Krumer-

Nevo et al., 2009; Popple & Reid, 1999). Moreover, the proposed multidimensional poverty framework for refugees has significant implications for policymakers and service providers involved in the refugee resettlement process.

The income poverty rate was high among the surveyed households and in part was linked to the current resettlement policies. Resettlement policies favor short-term results and consequently push many refugees into low-paid jobs with limited prospects to rise above poverty. Findings confirmed that the expectation form refugees to find a job within the first 90 days of arrival in the United States is an ineffective one-size-fits-all policy that neglects different capabilities and needs of many refugees. There is a need to reevaluate the long-term impacts of the current emphasis on self-sufficiency by accepting a job as soon as possible. Further investigation is also needed to find a solution for appropriate evaluation of refugees' skills and education through a possible equivalent certificate or degree. Refugees' previous education or skills are often overlooked due to lack of a proper evaluation system and consequently they are expected to accept low-paid jobs requiring limited skills or education.

The calculated multidimensional poverty rates were also concerning, specifically, deprivation in the education dimension. Over half of the households had at least one adult member who had not completed 11 years of schooling at the time of the interview. Many refugees arrive in the United States with lost opportunities for education. Social workers should advocate for access of adult refugees to educational programs that lead to a graduate equivalency diploma or other credentials.

Findings of the study highlighted the limitation of the monetary indices such as the income poverty index in capturing deprivations that refugee households experience in

different aspects of their life. Considering the popularity of the income poverty index in quantifying poverty, service providers including social workers should be more careful to avoid misinterpretation. As the results demonstrated, a lack of income poverty among refugees does not mean that they are not deprived in different domains of life. In order to measure deprivation and poverty in different aspects of refugees' lives, more comprehensive assessments and multidimensional indices are needed. Such assessments are critical for effective poverty reduction strategies.

A lack of English language proficiency proved to be the best predictor of refugee poverty among the reviewed indicators. Meanwhile, more than half of the surveyed refugee households had at least one member who could not speak English well or very well at the time of the interview. Refugees have access to low-cost or free of charge English language training through English as a Second Language (ESL) or English for Speakers of Other Languages (ESOL) classes after arrival in the United States. However, they don't have much time between arriving in the country and starting a job to learn the language if they are not proficient in it. Therefore, refugees' access to such services should be secured while they are in the resettlement process waiting in another country, which can take years. Investment in refugees' education it can result in higher self-sufficiency rates once refugees are in the United States. Online or in-home English language tutoring programs can also help refugees who are in the country and due to an array of reasons such as having a job with long hours of daily work are unable to attend English language classes.

The proposed multidimensional poverty framework of the study suggests a link between poverty and household characteristics. In this context, service providers

including social workers should be observant of the possibility of higher rates of poverty and deprivation among refugees with specific household characteristics. For instance, the findings of this study call for further attention to female-headed households and refugees from Iraq and Nepal. Assistance programs should be planned and provided based on household characteristics to mitigate the known risk factors of poverty.

This framework also suggests a link between poverty and host-related characteristics including discrimination and lack of access to transportation. In the resettlement process, resettlement agencies determine the state in which the refugees will resettle. Involved decision-makers should choose welcoming communities preferably with access to public transportation. Preparing the communities to host refugees is important; advocacy, awareness-raising, and information sharing about forced displacement and refugees can result in higher levels of empathy and understanding toward refugees. Helping refugees to receive their driving license and be able to buy a car if needed through fundraising and loans can be an important step in securing their access to the job market.

Refugees' social connections was also included in the proposed multidimensional poverty framework of the study and grouped with English language knowledge as non-economic aspects of adaptation. Resettlement organizations can create opportunities for refugees to meet more people and people outside of their immediate community through events and outreach programs. Previously resettled refugees could also be recruited by resettlement organizations to help new refugees build social connections. Key informants in this study briefly referred to the role of social media in keeping refugees connected.

Service providers and social workers should keep track of active groups of refugees or ethnic groups on social media to be able to introduce them to newly arrived refugees.

Future Research

The findings of this study contribute to the limited literature on refugee poverty and the factors associated with this problem early after resettlement in the United States. Further studies are needed to validate the proposed multidimensional poverty framework. In particular, quantitative analyses to explore and validate associations between poverty and discrimination, social connections, and access to transportation within the first five years of refugees' life in the United States are needed. This study would have benefited immensely from the incorporation of qualitative data reflecting the viewpoints of refugees. A similar study adding such a data source in the future would be beneficial.

There is also a clear need to explore other factors associated with poverty which were not included in the proposed framework due to limited evidence. Areas of interest would be associations between poverty and length of residence, household size, age of the head of the household, households' level of acculturation, households' access to information, and resettlement geographic locations. Finally, future research on refugee poverty can benefit from longitudinal methods and datasets.

Limitations

The 2016 ASR is the only available national dataset with data on refugees' self-sufficiency. Using this dataset for the secondary analyses of this study created some limitations. For instance, the dataset was collected in 2016; therefore, results might not reflect the current situation, specifically since the demographic of refugees and standpoint of the country toward refugees have changed following the Protecting the Nation from

Foreign Terrorist Entry into the United States Executive Order, known as the "Travel Ban." This Executive Order resulted in the temporary suspension of refugee admissions in 2017 (ACLU, 2020). The third version of this order, which is currently in place, resulted in a further vetting process for all refugees and banned the entry of refugees from Iran, Libya, North Korea, Syria, Yemen, and Somalia, except in special circumstances with a waiver (ACLU, 2020; NAFSA, 2020). Moreover, the quantitative analyses of the study were limited to the available data through the 2016 ASR, which restricted poverty analyses in the health and standards of living dimensions and prevented correlational analyses between poverty and discrimination, access to transportation, and refugees' social connections. Furthermore, the results of the systematic review were limited to the published studies. Moreover, the results of the systematic review and qualitative analyses of the study might suffer from bias caused by the lack of an independent review process due to resource constraints.

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