

**CHANGES IN SHARED DECISION-MAKING ROLES AND PERCEIVED STRESS IN
SYRIAN REFUGEE PARENTS RESETTLED IN THE GREATER TORONTO AREA: A
CROSS-SECTIONAL STUDY**

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ABSTRACT

Little is known concerning the impact of adjusting to new social roles on stress for Syrian refugee parents after resettlement. This thesis explored changes in shared decision-making roles (day-to-day, financial, and major life decisions) and the relationship of those changes to perceived stress among 148 Syrian refugee parents after resettling in the Greater Toronto Area (GTA) using a generalized estimated equation (GEE) model. An acculturative shift was observed among those participants who reported 'toward shared,' and among parents who were classified as 'not shared', the majority were father dominance. In families in which both parents were unemployed, those who 'always shared' financial decisions had significantly lower perceived stress than those whose financial decisions were 'toward shared'. These findings suggest that understanding the cultural contexts of gender roles and the impact of acculturation may help promote better post-migration strategies for Syrian refugee parents.

DEDICATION

This thesis is dedicated to my beloved parents, Mona & Atef Boulos, for their constant love, faith, and support that inspires me to pursue my passions and life accomplishments.

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LIST OF ABBREVIATIONS

BVOR:	Blended Visa Office-Referred Program.
GARs:	Government Assisted Refugees.
GEE:	Generalized Estimating Equation.
GTA:	Greater Toronto Area.
PSRs:	Private Sponsored Refugees.
PSS-10:	10-item Perceived Stress Scale.

GLOSSARY

Acculturation: The psychological adaptation (as individual behaviours) by migrants who experience a new culture; hence, develop relationships with a new culture and maintain their original culture (Berry, 1980, 1997).

Culture: The shared knowledge of belief, skills, and tradition that allows successful adaptation to new environments (Berry, 1980).

Gender-role beliefs: In research, the predominant way of understanding gender-role beliefs is by attributing the source of these beliefs to the different social roles performed by men and women to assess the general perception of gender roles (Eagly & Wood, 1991).

Perceived stress: The degree to which one's situations in life are appraised as stressful (i.e., unpredictable, uncontrollable, and overloading) (Cohen, Kamarck, & Mermelstein, 1983).

Refugees: Individuals who are forcibly displaced outside their native countries due to persecution, violence, political conflict, and human rights violations (United Nations General Assembly, 1951).

Shared decision-making roles: For this paper, it concerns the interdependent dynamic relationship between parents to make decisions for day-to-day, major life and financial affairs.

Traditional Patriarchal family model: the father, or oldest male, has the most authority in the household and is expected to be financially dominant (van Eijk, 2016).

EXTENDED INTRODUCTION

Context

The worldwide refugee crisis continues to reach record highs, with an estimated nearly 26 million refugees in 2019 (United Nations High Commissioner, 2021). The 1951 Convention relating to the Status of Refugees defines refugees as individuals that are forcibly displaced outside their native countries due to persecution, violence, political conflict, and human rights violations (United Nations General Assembly, 1951). Humanitarian organizations have called out wealthier countries for not doing enough, declaring that humanitarian assistance is constantly left severely underfunded (Amnesty International, 2019).

March 2011 marked the start of a full-scale civil war in Syria, lasting over a decade of conflict. Since 2014, Syria has remained the world's leading country of origin for refugees. An estimated 13.5 million Syrian refugees (SR) have been forcibly displaced (6.7 million have been internally displaced, and 6.6 million have fled their country), over half of Syria's population (Amnesty International, 2019). Since then, the number of Syrian Refugees has hardly declined, as described by the United Nations Refugee Agency (UNHCR) High Commissioner as the 'biggest humanitarian crisis of our time' (United Nations High Commissioner, 2021).

Canada's Response and Sponsorship Programs

Among many countries, Canada has responded to the conflict in Syria through generous funds and the implementation of the Syrian Refugee Resettlement Initiative (SRRI) in 2015 (Government of Canada, 2019). Through this initiative, an additional 25,000 Syrian refugees were resettled in Canada from November 2015 to February 2016, nearly doubling the annual number of refugees expected to arrive in Canada within a few months. Since then, another 63,000 Syrian refugees were resettled in Canada by 2019. However, as Canada continues to

commit to aiding the ongoing Syrian crisis, the government calls for temporary measures to be put in place to assist in service provisions and integration of this vulnerable population (Government of Canada, 2019).

The remarkable response to Syrian refugee resettlement initiatives is attributed to three sponsorship programs, the Government-assisted refugees (GAR) program, the Private sponsorship of refugees (PSR) program, and the Blended Visa Office-Referred (BVOR) program (Immigration Refugees and Citizenship Canada, 2017). All refugees selected are outside their home country and have a well-founded fear of returning to their homes (Government of Canada, 2019). Regarding the GAR program, refugees are referred by UNHCR and other humanitarian organizations based on the UNHCR vulnerability criteria. The Canadian government supports GARs through the Resettlement Assistance Program (RAP) for one year. Since refugees are initially registered with the UNHCR or other organizations, they must demonstrate the need for urgent protection rather than their abilities to establish successfully in Canada (Government of Canada, 2019; Houle, 2019). The Immigration and Refugee Protection Act (IRPA) noted that they often require greater assistance than other resettled refugees upon resettlement. Additionally, they have been characterized in research with lower language proficiency and education levels, worse overall health, lengthy refugee camp histories, and large families (Hynie et al., 2019).

In contrast, the PSR program allows third parties, such as non-profit organizations, to sponsor refugees and financially support them for the first year (Immigration Refugees and Citizenship Canada, 2017). Since PSRs can be named by community organizations or family members residing in Canada, they are more likely to have better language proficiency, higher education, and pre-existing family and social network that may facilitate integration and early

access to employment; however, it is not always the case (Hynie et al., 2019). GARs and PSRs account for the majority of the number of refugees resettled in Canada and are the most studied in Canadian Syrian refugee-related research (Houle, 2019). Lastly, BVOR is a hybrid cost-sharing initiative between a private sponsor and the government's RAP, each for six months for the first year of resettlement. Due to the program's recent establishment, BVOR refugees account for only under ten percent of Syrian refugees in Canada and are the least studied (Ali-Hassan, Sartipi, Jammal, Khan, & Tamim, 2021; Houle, 2019).

Refugee Mental Health

Worldwide, literature has consistently characterized refugee subpopulations with higher risks and higher proportions of psychological disorders when compared to general populations (Betancourt et al., 2012; Fazel, Wheeler, & Danesh, 2005; Porter & Haslam, 2005). A systemic literature review on the long-term mental health outcomes of war-affected refugees reported a prevalence rate of depression (2.3-80%), PTSD (4.4-86%), and unspecified anxiety disorder (20.3-88%) (Bogic, Njoku, & Priebe, 2015). Furthermore, research classifies these psychological disorders among refugees due to premigration trauma exposures and postmigration stress factors (Bogic et al., 2015; Steel, Silove, Phan, & Bauman, 2002).

Premigration traumatic experiences, including prolonged periods in refugee camps, suggest a dose-effect relationship with PTSD symptoms in both men and women, as well as higher risks of developing depression and anxiety (Fazel et al., 2005; Steel et al., 2002). However, most report recovering from the distress of premigration trauma within the first year of resettlement (Fazel et al., 2005; Hynie, 2018c). Although Syrian refugees are at higher risk of developing war-related mental disorders, they show little knowledge and awareness of mental illness, self-care strategies, or clinical treatments. Additionally, they express high cultural and

social stigma toward mental health problems and services (Hassan, Ventevogel, Jefee-Bahloul, Barkil-Oteo, & Kirmayer, 2016; Weine, Arënliu, Görmez, Lagenecker, & Demirtas, 2021).

While premigration conditions were the focus for mental health outcomes in traditional research, this perspective has been criticized for being skewed toward past events. A new movement of findings acknowledges that postmigration stressors have greater significant adverse psychological outcomes than premigration trauma (Chu, Keller, & Rasmussen, 2013; Li, Liddell, & Nickerson, 2016; Porter & Haslam, 2005; Schweitzer, Brough, Vromans, & Asic-Kobe, 2011). Additionally, postmigratory conditions and stressful events have a significant impact on predicting long-term mental health outcomes and may even act as a moderator for refugees' ability to recover from premigration trauma (Bogic et al., 2015; Hynie, 2018c; Li et al., 2016; Silove, Ventevogel, & Rees, 2017). Postmigration stressors pertain to socioeconomic situations (i.e. unemployment, low income, poor language proficiency, and housing security) and social and interpersonal challenges (i.e. social isolation, discrimination and loss of social-cultural identity) (Beiser & Hou, 2001; Krahn, Derwing, Mulder, & Wilkinson, 2000; Li et al., 2016). As more recent research and practices shift their emphasis on postmigration conditions, they provide the opportunity for new interventions to target preventative measures to help refugees during resettlement (Carswell, Blackburn, & Barker, 2011; Murray, Davidson, & Schweitzer, 2010).

Family Acculturation Stress & Rationale

Syrians are a family-oriented culture; their concept of 'immediate' family includes nuclear and extended units that are crucial support systems emotionally, financially and socially. However, the notion of family is widely ignored in Syrian refugee research as it mainly focuses on individual mental health outcomes (Beitin & Aprahamian, 2014). Family-level interventions have shown promising benefits for Syrian refugees and require more research to investigate the

coping mechanisms of families in postmigration conditions (Arenliu, Bertelsen, Saad, Abdulaziz, & Weine, 2020).

The context of culture plays a primary role in understanding the adaptation patterns of families. Culture is the shared knowledge, belief, skills, and tradition that allow successful adaptation to new environments (Berry, 1980; Pumariega & Rothe, 2010). The psychological adaptation, as the individual behaviours, by migrants who experience a new culture, develop relationships with a new culture and maintain their original culture, is called acculturation, expressed through 'shifts' of the pre-existing customs or habits in language, beliefs, attitude, values, or abilities (Berry, 1980, 1997). The process of undergoing acculturation can lead to psychological distress, referred to as acculturation stress (Berry, 1980; 2005). Acculturation stress is characterized by internal conflicts over family values, pressure to assimilate to avoid discrimination, loss of values and beliefs of original culture, loss of extended family and kinship support, and strains over changing roles, especially gender roles (Pumariega & Rothe, 2010; Simich, Beiser, Stewart, & Mwakarimba, 2005).

Intergenerational conflict is the most common source of acculturation stress found among refugees. Conflict arises as the younger generation rapidly assimilates to a new culture, including language, family roles, expectations, and limits, creating a gap with their parents. Parents often prefer to maintain their values, beliefs, practices, and native language (Berry, 2005; Kim & Omizo, 2006). As a result, parents face greater social isolation, hardships in developing a sense of belonging to a new society and learning a new language, fears of participating in new parenting role expectations and difficulties dealing with their children's loss of identification with their native culture (Pumariega & Rothe, 2010). Although intergenerational conflict is

widely studied in refugee-related research, there is a gap in how acculturation stress may be manifest among parent populations, especially in Syrian refugee parents.

MANUSCRIPT

Changes in Shared Decision-Making Roles and Perceived Stress in Syrian Refugee Parents

Resettled in the Greater Toronto Area

SUMMARY

Introduction: A quantitative approach was used to explore changes in shared decision-making roles (day-to-day, financial, and major life decisions) and the relationship of those changes to perceived stress among Syrian refugee parents after resettling in the Greater Toronto Area (GTA).

Methods: This study was cross-sectional in design, and a total of 148 Syrian refugees involving 74 pairs of parents (mothers and fathers) were interviewed. The variable 'shared decision-making roles' was captured by noting the decision-maker in Syria vs. in Canada in the domains of (1) day-to-day decisions, (2) financial decisions, and (3) major life decisions. Pairs of parents were then classified based on the degree of shared decision-making: (i) always shared, (ii) toward shared, and (iii) not shared. Perceived stress was measured using the 10-item Perceived Stress Scale (PSS-10). A generalized estimated equation (GEE) model was used to assess the association between shared decision-making roles and perceived stress while adjusting for several factors.

Results: Parents categorized as 'toward shared' were 20.3%, 23.0%, and 21.6% of day-to-day, major life and financial decisions, respectively. Among parents who were classified as 'not shared', father dominance represented 50.1%, 92.6%, and 82.6% for day-to-day, major life and financial decisions, respectively. Although there was no significant association with day-to-day nor major life decisions with perceived stress, in families in which both parents were unemployed, those who 'always shared' financial decisions (EMM = 8.83; 95% CI 4.84, 12.82) had significantly lower perceived stress than those whose financial decisions were 'toward shared' (EMM = 16.08; 95% CI 12.50, 19.67).

Conclusion: The findings suggest that understanding the different cultural contexts of gender roles and the impact of acculturation may help promote better strategies to assist Syrian refugee parents upon resettlement.

Keywords: Syrian Refugee Parents, Canada, Changes in Decision-Making Roles, Perceived Stress

INTRODUCTION

Over the past decade, Syria has experienced a full-scale civil war leading to the world's largest refugee crisis. Since 2011, more than 13 million people have been forced to flee their homes and find refuge within Syria or internationally, a figure which accounts for over half of Syria's population (United Nations High Commissioner, 2021). In response to the Syrian crisis, Canada has resettled more than 40,000 Syrian refugees, requiring additional resources and the temporary enactment of special measures (Government of Canada, 2019).

Worldwide epidemiological evidence shows higher proportions and risks of psychological disorders in refugee groups facing resettlement than in the general population (Betancourt et al., 2012; Fazel et al., 2005; Li et al., 2016; Porter & Haslam, 2005; Steel et al., 2002). Although premigratory conditions were traditionally the main focus concerning mental health outcomes among refugees, recent studies argue that postmigration stressors are significantly associated with more severe adverse mental health outcomes (Porter & Haslam, 2005; Schweitzer et al., 2011). The postmigration conditions highly influence refugees' mental health (Li et al., 2016), especially in high-income countries, rates vary based on the stressful exposures to material and social conditions (Bogic et al., 2015; Hynie, 2018c). Additionally, the consequences of these stressors can be cumulative, and an increased length of displacement in highly stressful settings has been shown to be associated with poorer long-term mental health conditions (Siriwardhana, Ali, Roberts, & Stewart, 2014). Postmigration stressors include socioeconomic hardships (i.e. unemployment, low income, poor language proficiency, and housing insecurity) and social and interpersonal challenges (i.e. social isolation, discrimination and loss of social-cultural identity) (Beiser & Hou, 2001; Krahn et al., 2000; Li et al., 2016).

Research evaluating factors for successful integration among refugee populations has emphasized the importance of culture, defined as shared knowledge, beliefs, skills, and traditions (Berry, 1980). During resettlement, specifically in Western countries such as Canada, refugees face pressures to integrate into a new cultural environment; this process is termed acculturation (Berry, 1980, 2005). Acculturation can lead to psychological distress, referred to as acculturation stress (Berry, 1980). The most common form of acculturation stress can be manifested through internal conflicts among family members, creating an intergenerational gap (Pumariiega & Rothe, 2010). Those in the younger generation tend to assimilate to the new cultural norms faster than their parents, who may prefer to maintain their native values, beliefs, practices, and language; hence they may face greater barriers to integrating and navigating the new host cultural environment (Kim & Omizo, 2006). As a result, parents may face greater social isolation, hardships in developing a sense of belonging, fears related to new parenting role expectations and difficulties in dealing with their children's loss of identification with their native culture (Pumariiega & Rothe, 2010). The consequences of acculturation stress have been reported to heighten family conflicts and compromise family functioning through behaviours, emotions, and attitudes (Dai & Wang, 2015; Pumariiega & Rothe, 2010; Slobodin & de Jong, 2015).

Syria is made up of many cultural, religious, and ethnic groups. Additionally, Syrians are a family-oriented culture, meaning that the nuclear and extended family plays a primary role in supporting each member emotionally, financially, and socially (Beitin & Aprahamian, 2014; Pumariiega & Rothe, 2010). In general, a traditional patriarchal family model is commonly observed, where the father, or the oldest male, has the most authority in the household and is expected to be financially responsible for the family (Asaf, 2017). Thus, Syrian refugee parents are faced with a more progressive cultural perspective with regard to gender norms, creating the

potential for shifts in gender role beliefs toward a more egalitarian dynamic, which is associated with greater wellbeing in the literature (Eagly & Wood, 1991; Guimond et al., 2007; Murphy, Gallegos, Jacobvitz, & Hazen, 2017; Steil, 1997). However, past qualitative findings have demonstrated negative consequences on mental health concerning gender role changes during acculturation (Colic-Peisker & Walker, 2003). For example, a study among African refugees found that when men lose their prior status as breadwinners, and financial interdependence between spouses may exacerbate interpersonal difficulties (Khawaja & Milner, 2012). Hence, there is a need to investigate the predictors of successful acculturation specific to refugee parents as they are an understudied subpopulation in the literature. This study aims to add insight into the impact of changes to shared decision-making roles in a sample of Syrian refugee parents resettled in the GTA. The objectives are to (1) describe the changes in decision-making roles (day-to-day, financial, and major life decisions) of Syrian refugee parents after resettling in the Greater Toronto Area, and (2) assess the relationship between changes to shared decision-making and perceived stress.

METHODS

Design, Procedure and Ethics

This study used the baseline data of a longitudinal study to assess the integration of Syrian refugee parents residing in Canada. The study took place in the Greater Toronto Area (GTA); at the provincial level, Ontario had the largest proportion of Syrian refugees (40%) and Syrian refugees represent the largest share (55%) of the refugee population in Canada. (Houle, 2019). Participants were recruited using convenience sampling methods in partnership with the Toronto community-based organizations Access Alliance Multicultural Health and the Arab Community Centre of the GTA. The inclusion criteria were being a Syrian refugee parent residing in the GTA, where both parents have at least one child under four years old and having completed the interview. Those criteria were specific to a larger project focusing on Syrian refugees facing parenthood after migration.

A total of 155 participants were recruited and interviewed; among them were 74 parent pairs from the same household (mothers and fathers), and an additional seven mothers whose partners were not interviewed and were excluded from the analysis. Data collection took place between May 29th and October 13th, 2019. All participants were interviewed individually, either at different points in time or different locations. All interviews were conducted by trained research assistants fluent in the Levantine Arabic dialect (writing and speaking) and took an average of 40 minutes per person. Responses were collected in person using the Quicktapsurvey app at a location convenient to the participant, including the previously mentioned community organizations, participants' private homes, public spaces, libraries, and coffee shops. All participants were compensated with a \$25 honorarium. Those interviewed away from their homes were compensated with two tokens for public transit. Research ethics approval was

obtained from York University, and consent was obtained from all participants before data collection.

Variables

Shared decision-making roles

The variable 'shared decision-making roles' was captured through three domains: (1) day-to-day decisions, (2) financial decisions, and (3) major life decisions. Each decision-making role variable involved two questions (Appendix A), one concerning premigration, starting with "*When you were living in Syria ...*" and the other concerning postmigration, starting with "*Currently ...*", referring to their life in Canada. These questions then proceeded specifically to a particular decision-making role of interest (1) "*... who made day-to-day decisions for the family*", (2) "*... who controlled finances for the family*", and (3) "*... who made the major life decisions for the family*". Each question had four alternative responses: (a) *mother*, (b) *father*, (c) *both (mother and father)*, and (d) *other (grandfather, grandmother or other)*. Based on the responses of both of the parents to the questions related to pre- and postmigration specific decision-making roles each pairs of parents were grouped based on degree of agreement: (i) *always shared* = both parents agreed that both parents shared the role pre- and postmigration (ii) *toward shared* = at least one parent claimed that the role was not shared premigration; but both parents agreed that the role was being shared postmigration, and (iii) *not shared* = at least one parent claimed that the role was not being shared postmigration.

Additionally, to observe the distribution of parents categorized as 'not shared' in postmigration settings, parents were further clustered based on the agreement of the decision role maker, whether mother or father: (a) *father dominance* = both parents agreed that the father was the decision-maker, or one of the parents claimed that the father was the decision-maker and the

other claimed that both parents were the decision-makers; (b) *mother dominance* = both parents agreed that the mother was the decision-maker, or one of the parents claimed that the mother was the decision-maker and the other claimed that both parents were the decision-makers. All others included disagreement or missingness from a parent.

Perceived Stress

The variable Perceived Stress was measured with the *10-item Perceived Stress Scale* (PSS-10) (Cohen et al., 1983); the Arabic version (Chaaya, Osman, Naassan, & Mahfoud, 2010) was used. The PSS-10 measures the degree to which one's life situations were appraised as stressful (i.e., unpredictable, uncontrollable, and overwhelming). Item examples include, 'How often have you been upset because of something that happened unexpectedly?' and 'How often have you felt that you were unable to control the important things in your life?'. Responses required individuals to indicate how often they felt or thought a certain way in the past month on a Likert scale (ranging from 0=*never* to 4=*very often*). PSS-10 scores were obtained by reversing positively stated items (4, 5, 7 and 8) and then summing across all scale items. The final scores ranged from 0 to 40, with higher scores indicating higher perceived stress. Given that the questions are general, meaning not specific or relative to any specific subpopulation, the PSS-10 has been widely used with various sample characteristics and has been translated into many languages, maintaining a coefficient alpha from 0.75 to 0.86 in the general literature (Roberti, Harrington, & Storch, 2006). For example, the PSS-10 has been previously translated and used with a sample of Syrian refugees university students (Alhalaiqa et al., 2021).

Covariates

Covariates were collected during the interview using a coding table (Appendix B). All variables were grouped into 'sociodemographic,' 'economic,' and 'resettlement and health'

factors. Sociodemographic factors pertained to identifying the parent (*mother/father*), age, number of children, and number of relatives and friends in the GTA. Economic factors included the parents' highest level of education (*none or elementary school; secondary or high school; or above high school*) and whether at least one parent was employed in the family (*yes/no*). Participants were also asked to rate on a Likert scale their perceived income status (ranging from 1=*low income* to 5=*upper income*), their English proficiency (ranging from 1=*none* to 5=*excellent*), and their housing satisfaction (ranging from 1=*very unsatisfied* to 5=*very satisfied*). Resettlement and health factors reflected the parents' sponsorship category (*Government Assisted Refugee, GAR; Privately Sponsored Refugee, PSR; or Blended Visa-Office Refugee, BVOR*), whether they were previously in a refugee camp (*yes/no*), the number of years in Canada, and their sense of belonging to Canada (ranging from 1=*very weak* to 4=*very strong*). Finally, a self-reported family functioning score variable was used based on a 12-item subscale taken from the seventh subscale from the *Macmaster Family Assessment Device* (FAD) called *general functioning* (Epstein, Baldwin, & Bishop, 1983). The general functioning subscale is the seventh dimension created by pooling items from the first six subscales of the MacMaster Model of Family Functioning (MMFF) to measure overall health/pathology of the family. Score ranged from 1 = *strongly agree* to 4= *strongly disagree*, where a higher score indicates worse family functioning. A reliable tool used in the literature as a single indicator for assessing a family's overall health (Miller, Epstein, Bishop, & Keitner, 1985).

Statistical Analysis

Descriptive statistics were computed for decision-making roles and all sociodemographic, economic, resettlement and health factors. Generalized estimation equation (GEE) models were used for the bivariate relationships between decision-making roles (day-to-day, major life, and

financial decisions) and all covariates (sociodemographic, economic, resettlement and health) individually with perceived stress. The Pearson correlation coefficient was assessed between shared decision-making roles to ensure that multicollinearity was not found between the independent variables. The outcome variable perceived stress was assessed to ensure normality of the distribution. A GEE model was performed to analyze the relationship between shared decision-making roles and perceived stress. The interactions between changes in decision-making roles and family functioning, family employment, the number of children, income, and English proficiency were assessed for significance. The significance test for multiple comparisons was determined through the Sidak method post hoc test. Marginal means (*MMs*) and estimated marginal means (*EMMs*) were reported for categorical variables, and unadjusted and adjusted beta coefficients (*adjβ*) were reported for Likert scales and continuous variables. Additionally, *p* values and 95% CIs were reported for all results. All analyses controlled for parents being from the same family to prevent clustering effects. Statistical significance was set at an alpha of <0.05 and all analyses was conducted using SPSS (version 24.0).

RESULTS

Sample Characteristics

A total of 148 Syrian refugees were interviewed. The sample had an average perceived stress score of 12.30 (SD 7.2). Table 1 shows that participants ranged in age from 21 to 50 years and had an average of 4 children. A vast majority of 90% rated their income in the range of low to middle income, and at least one employed parent was reported by 55% of the families; among them, only two mothers were employed in our sample. The participants had been in Canada for an average of 3 years (SD = 1.0), and 53.4% of individuals rated their sense of belonging to Canada as very strong. Concerning sponsorship programs, 50.7% were GARs, 39.9% were PSRs, and 8.1% were BVORs. Appendix C further investigated the relationship between the sponsorship program and participants' characteristics using one-way ANOVAs, where income (p = 0.007) and years in Canada (p = 0.008) were shown to be significantly different among sponsorship categories.

Shared Decision-making Roles: Descriptive Statistics

The sample consisted of 74 pairs of Syrian refugee parents, and 'toward shared' was reported for 20.3%, 23.0%, and 21.6% of day-to-day, major life and financial decisions, respectively (Table 1). Additionally, 'not shared' represented 45.9%, 36.5% and 70.3% of the participants for day-to-day, major life, and financial decisions, respectively. Among parents who were classified as 'not shared', majority were categorized as being father dominance representing 50.1%, 92.6%, and 82.6% for day-to-day, major life and financial decisions, respectively (Figure 1).

Relationship Between Shared Decision-making Roles and Perceived Stress

At the bivariate level (Table 2), there was no association for day-to-day and major life decisions with perceived stress, separately. However, for financial decisions, those parents who described their roles as 'always shared' ($MM = 8.70$; 95% CI 6.24, 11.16) had significantly lower perceived stress than those in the 'toward shared' category ($MM = 12.8$; 95% CI 9.50, 16.12). Hence, financial decisions were included in the final model as an interaction term.

The final adjusted GEE model (Table 3) demonstrated the relationship between shared decision-making roles and perceived stress. The results from the Pearson correlation coefficient analysis (Appendix D) demonstrated a moderate positive relationship between decision-making roles; however, these factors did not pose any risk of multicollinearity in the final GEE model. Both changes in the day-to-day and major life decision-making roles were not significantly associated with perceived stress. However, the interaction term 'financial decisions' and 'family employment' was statistically significant. Specifically, changes in financial decision-making among families in which the fathers and the mothers were both unemployed and 'always shared' decision-making roles ($EMM = 8.83$; 95% CI 4.84, 12.82) had significantly lower stress levels than those who were in the 'toward shared' category ($EMM = 16.08$; 95% CI 12.50, 19.67), $p = 0.020$. For sociodemographic factors, higher age significantly associated with less perceived stress ($Adj\beta = -0.35$; 95% CI -0.63, -0.06; $p = 0.017$). Concerning resettlement and health factors, sponsorship category was deemed an important factor since those who were GARs ($EMM = 11.09$; 95% CI 8.28, 13.89) had significantly lower stress levels than BVORs ($EMM = 15.34$; 95% CI 11.84, 18.83; $p = 0.051$). Additionally, a lower number of years in Canada ($Adj\beta = 1.39$; 95% CI 0.22, 2.55; $p = 0.020$) and a higher sense of belonging to Canada ($Adj\beta = -3.38$;

95% CI -5.14, -1.61; $p < 0.000$) both demonstrated less stress levels among Syrian refugee parents resettled in the GTA.

DISCUSSION

The current study assessed the changes in shared decision-making roles of day-to-day, major life and financial decisions pre- and postmigration and examined the relationship of those changes to perceived stress among Syrian refugee parents resettled in the GTA. For all decision-making roles those classified as 'toward shared' for 20.3%, 23.0%, and 21.6% of the participants for day-to-day, major life and financial decisions, respectively. Additionally, decision making roles classified as 'not shared' represented 45.9%, 36.5% and 70.3% of the participants for day-to-day, major life, and financial decisions, respectively. Among parents who were classified as 'not shared', majority were father dominance, 50.1% for day-to-day, 92.6% for major life, and 82.6% for financial decisions. In families where both partners were unemployed, those in 'always shared' had significantly less stress than those in 'toward shared' for financial decisions. Nevertheless, perceived stress was not significantly associated with day-to-day and major life decisions, separately. This study brings the novelty of quantitative findings to complement the qualitative research regarding the understudied subpopulation of refugee parents, who are generally very vulnerable and lack resources to facilitate integration.

Changes to Shared Decision-making roles

The results show that approximately 20% were categorized as 'toward shared' for all decision-making roles, which aligns with the literature regarding parents assimilating to new cultural norms at a slower rate than their children (Kim & Omizo, 2006). They also face hardships from socioeconomic, social and interpersonal perspectives (Beiser & Hou, 2001; Krahn et al., 2000; Li et al., 2016). Taken together, the combination of the many challenges that refugee parents face through resettlement may impact or delay the transition toward new gender beliefs and, in turn, the establishment of a new parenting relationship postmigration.

Although acculturation stress leads to family conflict and intergenerational gaps, the literature also suggests that parents themselves do not necessarily acculturate at a similar pace (Hebbani, Obijiofor, & Bristed, 2010; Khawaja & Milner, 2012). Due to the nature of the traditional patriarchal family model, men tend to find their dominant role challenged in Western societies (Darvishpour, 2002). As a result, fathers often use a separation strategy by resisting the new culture and keeping their authoritarian roles while expecting the mothers and other family members to accept their dominance (Hyman, Guruge, & Mason, 2008).

Regarding major life decisions, 39.2% of parents reported ‘always shared’ in contrast to financial decisions, where roles were reported as ‘always shared’ only among 6.8% of parents. Major life decisions differ from the other decision-making roles, as they are practiced through indefinite periods, whereas financial decision-making is practiced on a more consistent and frequent basis. Hence, more research is required to further explore these differences and assumptions, especially since qualitative studies have suggested the potential for decrease in traditional gender role beliefs upon resettlement for migrants (Eagly & Wood, 1991; Guimond et al., 2007; Murphy et al., 2017; Steil, 1997).

Relationship Between Share Decision-making Roles and Perceived Stress

The overall PSS-10 score for the sample was 12.3, considered as low (Cohen et al., 1983) and is relatively lower than other refugee studies who reported perceived stress worldwide (Ali-Hassan et al., 2021). Although different rates of mental disorders and stressors have been observed in different countries (Li et al., 2016), high income countries show varying rates due to the exposure to material and social conditions leading to stressful events, that may be cumulative (Alfadhli & Drury, 2016; Bogic et al., 2015; Hynie, 2018c). In Canada, all refugees are offered reception, orientation, assistance programs for housing, language, education, employment, and

free basic medical and prescription services under the Interim Federal Health Program until they are eligible for provincial/federal services (Hynie et al., 2019). Additionally, families are eligible for federal and provincial benefits, a tax-free monthly income to help the cost of raising children under 18 years of age (Ali-Hassan et al., 2021), that may help explain the low stress levels observed in the sample.

As previously reported among immigrant families from different cultural backgrounds, both men and women adopt different acculturation strategies: men hold on to their dominance, while women tend to acknowledge their rights and ability to gain financial freedom (Darvishpour, 2002). This suggests that after migration conflict may occur between partners due to the shift of power and tasks, with women attempting to shift that power imbalance and men holding onto traditional roles (Flores, Tschann, VanOss Marin, & Pantoja, 2004; Lovell, Tran, & Nguyen, 1987). The potential differences in the acculturation strategies adopted by the mother and the father may result in more significant conflict and stress as parents transition to new responsibilities and tasks (Morrison & James, 2009). This aligns with our finding that when both partners were unemployed, those who 'always shared' decision-making roles had a significantly lower perceived stress outcome than those who were 'toward shared' roles for financial decisions. Hence, those who already had shared roles established since living in Syria avoided the conflicts associated with re-establishing new roles and exhibited the positive outcomes of similar gender beliefs. Although our study reported no relationship between perceived stress and changes in day-to-day decisions and major life decisions, more research is necessary to further investigate the impact of acculturation, especially in the context of different decision-making roles and responsibilities.

Factors significantly associated with stress were a sense of belonging to Canada, years in Canada, sponsorship category, and age. A greater sense of belonging was associated with perceived stress. The psychological literature recognizes a sense of belonging as an essential indicator of successful integration. Developing a sense of belonging in the host country is rooted in finding one's identity within a particular social context; it encompasses social networking, a sense of community and social capital gain (Ager & Strang, 2008; Baumeister & Leary, 1995). Also, those who spent more years in Canada reported higher stress levels. Postmigration social determinants of health that refugees and asylum seekers face often result in limited access to material and social resources that may increase over time and impact overall mental and physical health (Hynie, 2018c). Additionally, recent findings among Syrian refugees in Canada have reported that although more educated refugees are more likely to be employed, they reported worse mental health and greater distress over time due to the adequacy of income (Bridekirk & Hynie, 2021).

The sponsorship program was borderline significantly associated with stress. Specifically, GARs had lower stress levels than BVORs. BVOR is a relatively new program and accounts for less than 10% of refugees resettled in Canada in 2016; hence lacks the same amount of research as compared to GARs and PSRs (Ali-Hassan et al., 2021; Houle, 2019) and only a small sample of 8% accounted for BVORs in this study, which may explain this finding. Additionally, previous research on Canadian sponsorship programs (i.e. GARs and PSRs) has characterized distinct premigration differences and/or postmigration anticipated benefits that are attributed to the program's effectiveness in supporting the integration of refugees into society (Hynie, 2018a; Hynie et al., 2019). Hence, our findings encourage more research on BVORs to further understand their needs upon resettlement and facilitate integration. Lastly, higher age was

associated with lower levels of stress. Younger parents in our sample may experience more stress since they are more likely to be first-time parents facing the challenges of transitioning to parenthood (Schoppe, Mangelsdorf, & Frosch, 2001), especially since they are also separated from their extended families, an essential aspect of Syrian culture (Arenliu et al., 2020; Beitin & Aprahamian, 2014). Hence, more research is required further to understand the predictor of age in Syrian refugee populations.

Limitations

Despite the significance of our findings, the results should be cautiously interpreted, as there are limitations present. The cross-sectional nature of the design may lead to reverse causality. There was also a potential for selection bias due to convenience sampling methods; hence, Syrian refugees experiencing social isolation, or the most hardships might be the hardest to reach. Additionally, survey-based questionnaires may be subject to recall bias, but participants were asked to answer to the best of their abilities. Finally, during the interview, families were still obtaining their citizenship; it is possible that they would be cautious about honestly expressing their concerns related to subjective factors and Canadian services.

CONCLUSION

The present study reported the changes in shared decision-making roles in Syrian refugee parents and the impact of those changes on perceived stress. The findings suggest a shift to sharing decisions, categorized as 'toward shared', for approximately 20% of the participants with a father dominance among parents classified in 'not shared' representing, 50.1%, 92.6%, and 82.6% for day-to-day, major life and financial decisions, respectively. Concerning perceived stress, families whose parents were unemployed, those reporting 'always shared' decisions had significantly lower stress levels than those in the 'toward shared' category for financial decision-making. As Syrian refugee parents undergo the challenges faced by acculturation, it is apparent that transitioning to a new culture has the potential for adverse outcomes and stress. Hence, future studies must consider the culture-specific challenges that Syrian refugee parents may face in meeting the specific parenting needs to implement adequate family-level resources and facilitate integration.

TABLES

Table 1 Characteristics of the sample of Syrian refugee parents resettled in the GTA.

		N (%)	Mean (SD)	Range
Shared Decision-Making roles				
<i>Day-to-day Decisions</i>	Always shared	48 (32.4)		
	Toward shared	30 (20.3)		
	Not shared	68 (45.9)		
<i>Major life Decisions</i>	Always shared	58 (39.2)		
	Toward shared	34 (23.0)		
	Not shared	54 (36.5)		
<i>Financial Decisions</i>	Always shared	10 (6.8)		
	Toward shared	32 (21.6)		
	Not shared	104 (70.3)		
Sociodemographic factors				
<i>Parent</i>	Mother	74 (50.0)		
	Father	74 (50.0)		
<i>Age</i>			35.53(6.29)	21.0 – 50.0
<i>Number of children</i>			3.93 (1.65)	1.0 – 9.0
<i>Number of relatives in the GTA</i>			3.63 (5.53)	0.0 – 40.0
<i>Number of friends in the GTA</i>	1 = None	13 (8.8)		
	2 = One	6 (4.1)		
	3 = Two or three	24 (16.2)		
	4 = Four or more	105 (70.9)		
Economic factors				
<i>Family Employed</i>	No	64 (43.2)		
	Yes	82 (55.4)		
<i>Education</i>	None or Elementary	45 (30.4)		
	Secondary or HS	70 (47.3)		
	HS or Above	32 (21.6)		
<i>Income</i>	1 = Low income	34 (23.0)	2.42 (0.96)	1.0 – 5.0
	2 = Lower-middle income	30 (20.3)		
	3 = Middle income	69 (46.6)		
	4 = Upper-middle income	12 (8.1)		
	5 = Upper income	1 (0.7)		
<i>English Proficiency</i>	1 = None	6 (4.1)	3.93 (1.09)	1.0 – 6.0
	2 = Very poor	10 (6.8)		
	3 = Poor	19 (12.8)		
	4 = Fair	74 (50.0)		
	5 = Good	31 (20.9)		
	6 = Excellent	8 (5.4)		
<i>Housing satisfaction</i>	1 = Very unsatisfied	17 (11.5)	3.34 (1.19)	1.0 – 5.0
	2 = Unsatisfied	17 (11.5)		
	3 = Neutral	30 (20.3)		
	4 = Satisfied	64 (43.2)		
	5 = Very satisfied	18 (12.2)		

Resettlement and health factors				
<i>Sponsorship</i>	GARs	75 (50.7)		
	PSRs	59 (39.9)		
	BVOR	12 (8.1)		
<i>Refugee Camp</i>	No	123 (83.1)		
	Yes	22 (14.9)		
<i>Sense of belonging to Canada</i>	1 = Very weak	0 (0.0)	3.40 (0.66)	1.0 – 4.0
	2 = Weak	14 (9.5)		
	3 = Strong	55 (37.2)		
	4 = Very strong	79 (53.4)		
<i>Years in Canada</i>			2.70 (1.0)	0.0 – 7.0
<i>Family Functioning</i>			1.54 (0.40)	1.0 – 3.0

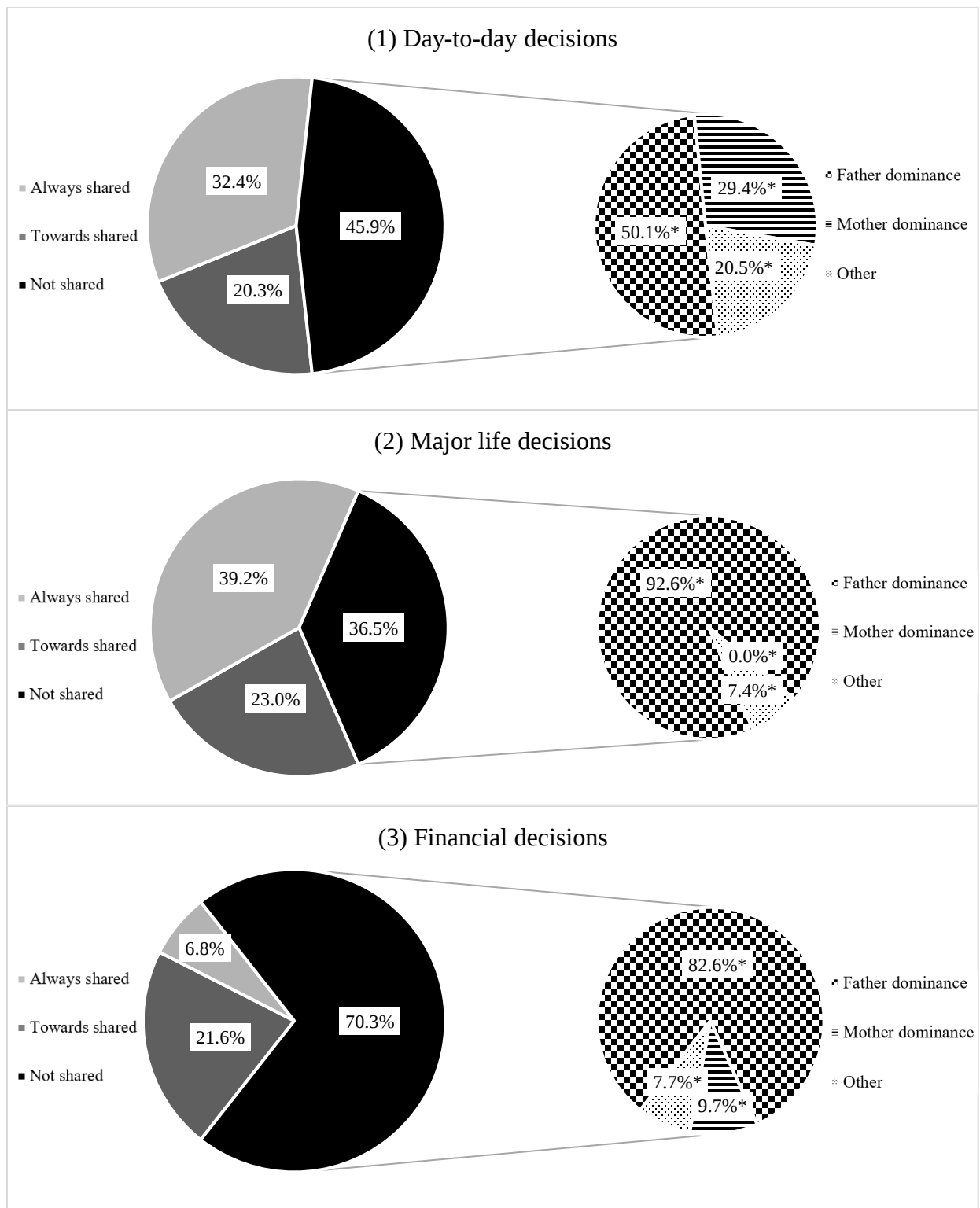


Figure 1 Shared decision-making roles for day-to-day, major life, and financial decisions.
 * Percentages calculated out of the 'not shared' category.

Table 2 Unadjusted GEE model to assess all shared decision-making roles and covariates with perceived stress for the sample of Syrian refugee parents resettled in the GTA.

		Unadj β (SE)	MMs (SE)	(95% CI)	P-value
Shared decision-making roles					
Day-to-day decisions	Always shared		11.60 (1.14)	(9.36, 13.85)	0.766
	Toward shared		12.53 (1.37)	(9.84, 15.23)	
	Not shared		12.65 (0.95)	(10.79, 14.50)	
Major life decisions	Always shared		11.82 (1.15)	(9.58, 14.08)	0.721
	Toward shared		12.00 (1.14)	(9.76, 14.23)	
	Not shared		12.94 (1.00)	(10.99, 14.90)	
Financial decisions	Always shared		8.70 (1.25)	(6.24, 11.16)^a	0.025
	Toward shared		12.8 (1.69)	(9.50, 16.12)^a	
	Not shared		12.49 (0.72)	(11.08, 13.90)	
Sociodemographic factors					
Parent	Mother		13.39 (0.82)	(11.78, 15.00)	0.037
	Father		11.20 (0.83)	(9.58, 12.83)	
Age		-0.18 (0.09)		(-0.36, 0.01)	0.058
Number of Children		0.22 (0.44)		(1.09, 0.24)	0.622
Number of Relatives in the GTA		-0.16 (0.07)		(-0.30, -0.02)	0.029
Number of Friends in the GTA		-1.46 (0.60)		(-2.64, -0.29)	0.015
Economic factors					
Family Employed	No Yes		12.86 (1.10) 11.67 (0.73)	(10.69, 15.03) (10.24, 13.10)	0.369
Education	None or Elementary Secondary or HS HS or Above		12.90 (0.86) 11.92 (0.87) 12.36 (1.31)	(11.22, 14.59) (10.23, 13.63) (9.79, 14.93)	
Income		-1.02 (0.68)		(-2.35, 0.32)	0.135
English Proficiency		- 0.22 (0.54)		(-1.28, 0.83)	0.678
Housing satisfaction		-1.35 (0.48)		(-2.29, -0.41)	0.005
Resettlement and Health factors					
Sponsorship	GARs PSRs BVOR		11.71 (0.91) 12.10 (0.98) 16.75 (1.25)	(9.93, 13.49)^a (10.21, 13.99)^b (14.31, 19.19)^{a,b}	0.001
Refugee Camp	No Yes		12.08 (0.69) 13.95 (1.84)	(10.74, 13.42) (10.35, 17.56)	
Sense of belonging to Canada		-2.84 (0.73)		(-4.28, -1.40)	0.000
Years in Canada		0.38 (0.50)		(-0.60, 1.35)	0.449
Family Functioning		5.29 (1.19)		(2.95, 7.62)	0.000

^{a, b} The mean differences are significantly different.

Note. GEE = Generalized Estimation Equation; MMs = Marginal Means.

Table 3 Adjusted GEE model to assess the relationship between the shared decision-making roles and the interaction term with perceived stress while controlling for all covariates for a sample of Syrian refugee parents resettled in the GTA.

		Adj β (SE)	EMMs (SE)	(95% CI)	P-value
Shared decision-making roles					
Day-to-day decisions	Always shared Toward shared Not shared		11.51 (1.76) 13.79 (1.44) 13.27 (1.31)	(8.04, 14.99) (10.97, 16.61) (10.70, 15.83)	0.449
Major life decisions	Always shared Toward shared Not shared		12.87 (1.17) 13.09 (1.41) 12.61 (1.75)	(10.58, 15.16) (10.32, 15.86) (9.18, 16.03)	0.953
Financial decisions	Family Employed				
Always shared	No		8.83 (2.04)	(4.84, 12.82) ^a	0.020
	Yes		13.16 (2.23)	(8.79, 17.54)	
Toward shared	No		16.08 (1.83)	(12.50, 19.67) ^a	
	Yes		11.50 (2.38)	(6.84, 16.15)	
Not shared	No		13.90 (1.86)	(10.34, 17.63)	
	Yes		13.58 (1.10)	(11.42, 15.73)	
Sociodemographic factors					
Parent	Mother Father		13.05 (1.39) 12.66 (1.45)	(10.32, 15.79) (9.81, 15.51)	0.803
Age		-0.35 (0.15)		(-0.63, -0.06)	0.017
Number of Children		0.40 (0.66)		(-0.90, 1.70)	0.546
Number of Relatives in the GTA		-0.14 (0.10)		(-0.33, 0.05)	0.143
Number of Friends in the GTA		-0.17 (0.96)		(-2.04, 1.71)	0.860
Economic factors					
Education	None or Elementary Secondary or HS HS or above		11.73 (1.49) 11.93 (1.15) 14.92 (2.02)	(8.81, 14.64) (9.67, 14.18) (10.95, 18.88)	0.201
Income		-0.80 (0.75)		(-2.27, 0.66)	0.283
English Proficiency		-0.61 (0.70)		(-1.99, 0.77)	0.384
Housing satisfaction		-0.66 (0.53)		(-1.71, 0.39)	0.216
Resettlement and Health factors					
Sponsorship	GARs PSRs BVOR		11.09 (1.43) 12.14 (1.54) 15.34 (1.78)	(8.28, 13.89) ^a (9.12, 15.17) (11.84, 18.83) ^a	0.051
Refugee Camp	No Yes		12.41 (0.69) 13.30 (2.13)	(11.05, 13.76) (9.11, 17.49)	0.673
Sense of belonging to Canada		-3.38 (0.90)		(-5.14, -1.61)	0.000
Years in Canada		1.39 (0.60)		(0.22, 2.55)	0.020
Family Functioning		1.84 (1.48)		(-1.06, 4.74)	0.213
^a The mean differences are significantly different.					
Note. GEE = Generalized Estimation Equation; EMMs = Estimated Marginal Means.					

EXTENDED DISCUSSION

Qualitative studies that have observed roles through gender-related tasks distribution have reported the potential for a decrease in traditional gender role beliefs, promoting a more positive co-parenting relationship (Eagly & Wood, 1991; Guimond et al., 2007; Murphy et al., 2017; Steil, 1997). However, compared to gender role beliefs, even fewer studies have observed sharing household responsibilities; even so, they suggest that sharing household tasks is generally small or even absent among immigrants (van de Vijver, 2007). Very little is known about daily and major behavioural tasks such as decision-making roles distributions, especially among refugees, who undergo more significant resettlement barriers and stress than immigrants (Bogic et al., 2015). Hence, this study aimed to observe changes in decision-making roles (day-to-day, financial, and major life decisions) of Syrian refugee parents after resettling in the Greater Toronto Area (GTA) and assess the relationship between change to shared decision-making role with perceived stress.

Refugee parents may face many challenges when faced with acculturation that may pose greater hardship when compared to the younger generation. Literature has documented a range of acculturation strategies concerning identity formation that refugees may adapt upon resettlement; they can (1) reject their original culture and assimilate with the host society, (2) integrate into the host society by retaining the original culture and adopting the new culture, (3) separate from the host society by rejecting the new culture and preserving the original culture, or (4) can become marginalized by rejecting both cultures (Berry, 2005). Our findings align with the suggested evidence that mothers and fathers may adopt different acculturation strategies, leading to potential conflict (Hebbani et al., 2010). However, that is not always the case, as research has also suggested that since the younger generation of youth adapts to the new environment quicker

than their parents, they may take on many responsibilities that attribute them as "resettlement champions," easing family relations (Hynie, Guruge, & Shakya, 2013).

There is a large prevalence of Syrian refugees resettling across many Western nations, leading to increased demand for resources to assist this vulnerable population when facing economic hardships and acculturation challenges. Refugees have significant disadvantages and limitations through social inequalities; they have less access to power, material resources and policymaking, which compromises mental and physical health (Hynie, 2018c). In other words, refugees are faced with stressors from a social, economic, and environmental outlook. Our findings also suggested that higher perceived stress was significantly associated with financial decisions (a shared decision-making role) and family unemployed (socioeconomic factor) among parents who reported 'toward shared' than 'always shared.' Additionally, perceived stress was significant in many 'health and resettlement' factors (higher number of years in Canada, lower sense of belonging to Canada and sponsorship category). This emphasizes the growing need for inclusion from the public social opinion and attitudes that can eventually further shape government policy and social (Hynie, 2018b).

Future Directions

In the case of Syrian refugees, targeting acculturation stress and how it impacts the co-parenting relationship should be further investigated. Our findings among parents who reported 'not shared' involved many variations between the reports from both parents in the same household, eliciting the potential for many disagreements between the mother and the father that may require greater investigation specific to the gender and their perceptions. Hence, the inter-dependent relationship between refugee parents, especially in postmigration, requires further

investigation to aid in developing positive strategies to help parents transition to new roles without compromising individual wellbeing.

Lastly, there is a demand for long-term evaluation of acculturation stress and the positive predictors of such a relationship, especially for families. Since the family plays an essential role in each member's wellbeing, especially in Syrian culture (Beitin & Aprahamian, 2014; Dai & Wang, 2015), assistance programs should further consider implementing targeted family interventions to help each express and develop the necessary skills to overcome the pressures that acculturation may pose.

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Appendix A. Shared decision-making roles survey questions asked to a sample of Syrian refugee parents resettled in the GTA.

1. **When you were living in Syria, who made the day-to-day decisions for the family?**
(a) Mother; (b) Father; (c) Both mother and father; (d) Grandmother or Grandfather or Other.
2. **Currently, who makes the day-to-day decisions for the family?**
(a) Mother; (b) Father; (c) Both mother and father; (d) Grandmother or Grandfather or Other.
3. **When you were living in Syria, who controlled the finances for the family?**
(a) Mother; (b) Father; (c) Both mother and father; (d) Grandmother or Grandfather or Other.
4. **Currently, who controls the finances for the family?**
(a) Mother; (b) Father; (c) Both mother and father; (d) Grandmother or Grandfather or Other.
5. **When you were living in Syria, who made the major life decisions for the family?**
(a) Mother; (b) Father; (c) Both mother and father; (d) Grandmother or Grandfather or Other.
6. **Currently, who makes the major life decisions for the family?**
(a) Mother; (b) Father; (c) Both mother and father; (d) Grandmother or Grandfather or Other.

Appendix B. Codes for covariates used in the Generalized Estimating Equation (GEE) model.

Sociodemographic factors	
<i>Parent</i>	1 = Mother 2 = Father
<i>Age</i>	
<i>Number of children</i>	
<i>Number of relatives in the GTA</i>	
<i>Number of friends in the GTA</i>	1 = None 2 = One 3 = Two or three 4 = Four or more
Economic factors	
<i>Family Employed</i>	0 = No 1 = Yes
<i>Education</i>	1 = None or Elementary 2 = Secondary or HS 3 = HS or Above
<i>Income</i>	1 = Low income 2 = Lower-middle income 3 = Middle income 4 = Upper-middle income 5 = Upper income
<i>English Proficiency</i>	1 = None 2 = Very poor 3 = Poor 4 = Fair 5 = Good 6 = Excellent
<i>Housing satisfaction</i>	1 = Very unsatisfied 2 = Unsatisfied 3 = Neutral 4 = Satisfied 5 = Very satisfied
Resettlement and Health factors	
<i>Sponsorship</i>	1 = GARs 2 = PSR 3 = BVOR
<i>Refugee Camp</i>	0 = No 1 = Yes
<i>Sense of belonging to Canada</i>	1 = Very weak 2 = Weak 3 = Strong 4 = Very strong
<i>Years in Canada</i>	
<i>Family Functioning</i>	

Appendix C One-way ANOVA of the sponsorship characteristics in relation to economic factors among a sample of Syrian refugee parents resettled in the GTA.

		Sponsorship			
		GAR	PSR	BVOR	P-value
Covariates		N (%)	N (%)	N (%)	
Family Employed	No	30 (48.4)	22 (35.5)	10 (16.1)	0.012
	Yes	43 (52.4)	37 (45.1)	2 (2.4)	
Education	None & Elementary	24 (53.3)	18 (40.0)	3 (6.7)	0.456
	Secondary & HS	40 (57.1)	25 (35.7)	5 (7.1)	
	Above HS	11 (36.7)	16 (53.3)	3 (6.7)	
		Mean (SD)	Mean (SD)	Mean (SD)	
English		3.03 (1.14)	3.86 (1.07)	4.00 (0.74)	0.896
Income		2.67 (0.91)	2.15 (0.94)	2.5 (0.90)	0.007^a
Years in Canada		2.96 (0.81)	2.38 (1.17)	3.00 (1.00)	0.008^{a,b}
^a The mean difference is between GAR and PSR. ^b The mean difference is between PSR and BVOR.					

Appendix D Pearson Correlation Coefficient between decision-making roles and covariates for a sample of Syrian refugee parents resettled in the GTA.

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.	14.	15.	16.	17.	18.	19.
1.Major life Decisions	1	.31**	.47**	.1	.00	.18*	-.06	-.10	.14	-.05	.147	-.03	.09	.05	-.03	.07	-.00	-.10	.06
2.Financial Decisions		1	.47**	.1	.00	.07	-.06	-.12	.00	-.13	.052	-.12	-.05	-.04	-.08	-.04	.08	-.20*	-.10
3.Day-to-dayDecisions			1	.1	.00	.03	-.13	-.16	.22**	-.06	.068	-.17*	.01	-.08	-.03	.11	.08	-.01	-.04
4.Perceived Stress				1	-.15	-.08	.02	.14	.09	-.16	.29**	-.03	.05	-.12	-.19*	-.14	-.22**	-.26**	.05
5.Parent					1	.00	.05	.03	.00	.56*	-.112	-.12	.00	.05	.02	-.16	.00	.09	-.02
6.Family Employed						1	.24**	-.14	.11	-.20*	.054	.17*	-.22**	.20*	.21*	.18*	.29**	-.07	-.06
7.Education							1	.10	-.10	.03	-.105	.55*	-.44**	.05	.05	-.05	.06	-.19*	.06
8.Sponsorship								1	-.04	.11	.006	-.01	-.11	.02	.01	-.18*	.25**	-.06	-.15
9.Refugee Camp									1	.02	.027	-.02	.14	-.18*	.01	.03	.05	.03	-.01
10.Age										1	-.132	-.09	.37**	.00	.06	-.17*	-.13	-.04	.09
11.Family Functioning											1	-.12	-.02	.07	-.30**	-.09	-.07	-.40**	-.09
12.English Proficiency												1	-.23**	.12	.18*	.01	.10	-.18*	.18*
13.Number of Children													1	-.24**	.04	.09	-.16	.16	.27*
14.Number of Relatives in the GTA														1	.11	.01	.16	-.13	.12
15.Number of Friends in the GTA															1	.14	.13	.11	.06
16.Income																1	.25**	.14	.15
17.Housing Satisfaction																	1	.09	-.01
18.Sense of Belonging to Canada																		1	.18*
19.Years in Canada																			1

** . Correlation is significant at the .01 level (2-tailed).
 * . Correlation is significant at the .05 level (2-tailed).