



Changes in Shared Decision-Making Roles and Perceived Stress in Syrian Refugee Parents Resettled in the Greater Toronto Area

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ABSTRACT

This study explored changes in shared decision-making roles (day-to-day, financial, and major life decisions) and their relationships to perceived stress among 148 Syrian refugee parents after resettling in Toronto using a generalized estimated equation model. Parents were categorized as “towards shared” decision-making for 20.3%, 23.0%, and 21.6% of day-to-day, major life, and financial decisions, respectively. In families where both parents were unemployed, those who “always shared” making financial decisions had significantly lower perceived stress than those “towards shared” ($p = .02$). Understanding the cultural contexts of gender roles and the impact of acculturation may help promote better post-migration strategies.

KEYWORDS

Syrian refugee parents; Canada; changes in decision-making roles; perceived stress

RÉSUMÉ

Cette étude explore les changements dans les rôles de prise de décision partagée (décisions quotidiennes, décisions financières et décisions de vie importante) et leurs liens avec le stress perçu chez 148 parents réfugiés syriens après leur réinstallation à Toronto à l'aide d'un modèle d'équation d'estimation généralisée. Les parents ont été classés dans la catégorie « vers le partage » de la prise de décision pour 20,3 % des décisions quotidiennes, 23,0 % des décisions de vie importantes et 21,6 % des décisions financières, respectivement. Dans les familles où les deux parents étaient au chômage, ceux qui partageaient « toujours » la prise de décisions financières avaient une perception du stress significativement plus faible que ceux qui étaient classés dans la catégorie « vers le partage » ($p = 0,02$). Comprendre les contextes culturels des rôles de genre et l'impact de l'acculturation peut aider à promouvoir de meilleures stratégies post-migratoires.

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 forcibly displaced and left to find refuge in other countries around the globe (UNHCR, 2021). In response to the Syrian conflict, Canada has resettled more than 70,000 Syrian refugees since 2015, requiring additional resources

and the temporary enactment of special measures (Government of Canada, 2019; Kalata, 2021). Currently, three programs exist to support refugees upon resettling in Canada: Government Assisted Refugees (GARs), Privately Sponsored Refugees (PSRs), and Blended Visa Office-Referréd (BVOR) refugees. GARs are supported through a service provider organization, which is federally funded and provides financial aid to refugees

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for one year. PSRs are supported through community-based groups that provide financial aid during the first year of resettlement. BVORs are supported through both private and government-based financial support. Data on these programs indicate that most refugees are resettled through GAR, with BVOR being the least accessed support option (Government of Canada, 2021). This paper considers acculturative stress in the context of Syrian refugees' resettlement to Canada with an emphasis on how acculturative stress may be experienced in the context of family roles.

Acculturative Stress

In recent years, there has been increased recognition that immigrant and refugee integration is a two-way adaptation process between newcomers and communities of settlement (e.g., Commission of the European Communities, 2005). Despite these acknowledgements of the importance of mutual accommodation, however, both public and policy discourse still discuss integration in terms of the newcomers' need to change and how well they "fit" in their new environment (Goodman & Kirkwood, 2019; Schinkel, 2018; Squires, 2018). These pressures add to the challenges of navigating a new home and are often accompanied by perceived (or explicit) pressure to change behaviours and roles to conform to the new setting. The pressures of adapting to a new environment following migration has been associated with negative mental and emotional states, a form of stress coined **acculturative stress** (Berry, 1980; Berry et al., 1987). Research on the mental health and well-being of immigrants and refugees finds that acculturative stress is associated with a broad range of challenging experiences that are often shared by immigrants and refugees. Acculturative stress can be linked to socio-economic 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). These challenges may impede an individual's sense of belonging and overall well-being. Another potential challenge brought on by migration is a change in identity as the individual seeks to adapt to new social and cultural experiences (Ballentyne et al., 2020) and struggles to find a balance between previous and current ways of living, including new social roles.

Berry and colleagues (1987) have argued that although the transition to a new setting is stressful, acculturative stress varies widely between groups and individuals and does not necessarily lead to negative mental health outcomes. Indeed, mental health outcomes for refugees resettling in high-income countries seem to vary based on social conditions and exposure to stressors (Bogic et al., 2015; Hynie, 2018b). Global 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 pre-migratory conditions have traditionally been the main focus concerning mental health outcomes among refugees, recent studies argue that post-migration stressors are significantly associated with more severe adverse mental health effects (Porter & Haslam, 2005; Schweitzer et al., 2011). This appears to be especially true in high-income countries (Li et al., 2016). The challenges associated with settling into high-income countries may be due to social and cultural experiences that differ significantly from refugees' previous ways of living in ways that

can create intersecting barriers to integration. For instance, limitations surrounding language may make it difficult to access employment, subsequently impacting access to sufficient housing or other necessities. For parents especially, navigating childcare and school-related systems challenges may also contribute to negative post-migration outcomes. The consequences of these stressors can be cumulative—that is, the more prolonged displacement is perpetuated over time and under stressful conditions, the higher the risk of long-term consequences on an individual's mental health (Siriwardhana et al., 2014). Acculturative stress has also been proposed to be greater for those, like refugees, who did not choose to migrate, and who may thus experience the pressures to change more negatively than those who have actively chosen to migrate (Berry et al., 1987).

Certain minoritized groups are also at greater risk of feeling, or being treated as if, they do not belong, as well as experiencing othering, xenophobia, and exclusion by members of the host society (Hynie, 2018b). These experiences impede one's ability to participate in the new setting and also one's sense of belonging to the new community (Gleeson et al., 2020). They can also have negative effects on mental health and well-being. Previous literature has found refugees' experiences of verbal or physical violence due to racism to negatively impact their well-being and impede the resettlement process (Hutchinson & Dorsett, 2012). In the current global climate of increased Islamophobia, these experiences of exclusion and othering may be experienced particularly acutely by Muslim immigrants and refugees and may create unique challenges for their mental health and well-being (Awad et al., 2023; Reitz et al., 2017). The focus of many of othering discourses towards

refugees centre on portrayals of the Muslim family and gender roles in highly prejudicial and stereotypical ways (Korteweg & Triadafilopoulos, 2013). Although many of those resettled in Canada from Syria were Christian, Syria is a majority Muslim country, and research with those entering Canada as GARs report that a high proportion of people resettling through the GAR pathway self-identified as Muslim.

Acculturative Stress and Family Roles

Experiences of othering can create additional acculturative stress for minoritized families by increasing pressure to change family roles—pressures that may not only be felt from media, community, and government but can also emerge internally within families as a consequence of exposure to different opportunities and challenges. Although Syria comprises many cultural, religious, and ethnic groups, people from Syria tend to share similar family-oriented values. The nuclear family and extended family typically play a primary role in supporting each family member emotionally, financially, and socially (Beitin & Aprahamian, 2014; Pumariega & Rothe, 2010). A traditional patriarchal family model is commonly observed in Syrian culture, where the father or the oldest male family member has the most authority in the household and is expected to be financially responsible for the family (Asaf, 2017).

A form of acculturative stress for many newcomer families is internal conflicts among family members, who may change their perspectives on family and social roles at different rates (Pumariega & Rothe, 2010). Younger refugee newcomers have been shown to have an easier time adapting to new cultural experiences compared with older newcomers (Daniel et al., 2019). This may be attributed to greater flexibility around adapting to the new cultural and social environ-

ment. Other changes may not be made by choice but result from a need to overcome post-migration obstacles such as differences in employment opportunities and the need for additional family income. Therefore, families may need to restructure roles, which can vary based on needs but may include both parents working rather than one being the breadwinner and the other the primary caregiver. These changes can exacerbate family conflict and compromise family functioning through negative behaviours, emotions, and attitudes (Dai & Wang, 2015; Pumariega & Rothe, 2010; Slobodin & de Jong, 2015). Moreover, as noted above, acculturative stress may be particularly heightened in the domain of family relationships for those newcomers experiencing the kinds of family role-related othering and discrimination that has been expressed in recent years towards Muslim refugees and refugee claimants in Europe and North America.

Thus, upon resettlement to Canada, some Syrian refugee parents may face more egalitarian gender norms, creating the potential for shifts in gender role beliefs towards a more egalitarian dynamic. While this has been associated with greater well-being in the literature (Eagly & Wood, 1991; Guimond et al., 2007; Murphy et al., 2017; Steil, 1997), qualitative evidence has suggested that there may, in contrast, be negative consequences of gender role changes on mental health during acculturation (Colic-Peisker & Walker, 2003). For example, a study among African refugees found that when men lose their prior status as breadwinners, financial interdependence between spouses may exacerbate interpersonal difficulties (Khawaja & Milner, 2012). The goal of this study is thus to explore how changing family roles among Syrian newcomer families in Canada might contribute to acculturative stress. In particular, the present study aimed to add

insight into the impact of changes to shared decision-making roles in a sample of Syrian refugee parents resettled in the Greater Toronto Area (GTA), given that refugee parents are an understudied population. The objectives are to (a) describe the changes in decision-making roles (day-to-day, financial, and major life decisions) of Syrian refugee parents after resettling in the GTA and (b) assess the relationship between changes in 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 GTA; at the provincial level, Ontario received the largest proportion of Syrian refugees (40%) in Canada, and at the time of the study, Syrian refugees represented 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 required participants to be Syrian refugee parents residing in the GTA, where both parents have at least one child under four years old. This was implemented as part of a larger project focusing on Syrian refugee parents' post-migration outcomes and thus translated over to the present research.

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 7 mothers whose partners were not interviewed; these 7 were excluded from the analysis, leaving the final sample: $n = 148$. Data collection

took place between May 29 and October 13, 2019. All participants were interviewed individually, either at different points in time or at different locations from one another. 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 (<https://www.quicktapsurvey.com/>) application at a location convenient to the participant; locations included 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 public transit tokens. Research ethics approval was obtained from York University, and consent was obtained from all participants before data collection.

Variables

Shared Decision-Making Roles

The shared decision-making roles variable was captured through three domains: (a) day-to-day decisions, (b) financial decisions, and (c) major life decisions. Each category of decision-making roles involved two questions (see [Appendix A](#)), one concerning pre-migration, starting with "When you were living in Syria ...," and the other concerning post-migration, starting with "Currently ...," referring to refugees' life in Canada. These questions were followed by another set of questions that asked specifically about a particular decision-making role of interest: (a) "... who made day-to-day decisions for the family"; (b) "... who controlled finances for the family"; and (c) "... 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 regarding pre- and post-migration decision-making roles, pairs of parents were grouped based on the degree of agreement: (a) "always shared" = both parents agreed that both parents shared the role pre- and post-migration; (b) "towards shared" = at least one parent claimed that the role was not shared pre-migration, but both parents agreed that the role was being shared post-migration; and (c) "not shared" = at least one parent claimed that the role was not being shared post-migration.

Parents in the "not shared" category post-migration were further clustered based on the agreement of the decision-maker role, 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 missing information from a parent.

Perceived Stress

Perceived stress was measured using the 10-item Perceived Stress Scale (PSS-10) (Cohen et al., 1983). 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 particular subpopulation, the PSS-10 has been widely used with various samples and has been translated into many languages, maintaining a coefficient alpha from 0.75 to 0.86 in the general literature (Roberti et al., 2006). For example, the PSS-10 has been previously translated and used with a sample of Syrian refugee university students (Alhalaiqa et al., 2021).

Covariates

Covariates were collected during the interview using a coding table (Appendix B). All variables were grouped into socio-demographic, economic, and resettlement and health factors. Socio-demographic 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 in the family was employed (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 6 = excellent), and their housing satisfaction (ranging from 1 = very unsatisfied to 5 = very satisfied). Resettlement and health factors reflected the parents' sponsorship category (GAR, PSR, or BVOR), whether they were previously in a refugee camp (yes/no), number of years in Canada, and their sense of belong-

ing 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 from the seventh subscale of the McMaster Family Assessment Device called general functioning (Epstein et al., 1983). The general functioning subscale is the seventh dimension of this scale, created by pooling items from the first six subscales of the McMaster Model of Family Functioning to measure the overall health/pathology of the family. Scores range from 1 = strongly agree to 4 = strongly disagree, where a higher score indicates worse family functioning. It has been reported to be a reliable tool used as a single indicator for assessing a family's overall health (Miller et al., 1985).

Statistical Analysis

Descriptive statistics were computed for decision-making roles and all socio-demographic, 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 (socio-demographic, economic, resettlement, and health) individually with perceived stress. 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, 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 ($\text{adj}\beta$) were reported

for Likert scales and continuous variables. Additionally, *p* values and 95% confidence intervals were reported for all results. All analyses controlled for parents from the same family to prevent clustering effects. Statistical significance was set at an alpha of $< .05$, and all analyses were conducted using SPSS (v. 24.0).

RESULTS

Sample Characteristics

A total of 148 Syrian refugees were interviewed. The sample had an average perceived stress score of 12.30 ($SD = 7.2$). Participants ranged in age from 21 to 50 years and had an average of four children (see Table 1). A vast majority (90%) rated their income in the low to middle range, and at least one employed parent was reported by 55% of the families; in our sample, only two mothers were employed. The participants had been in Canada for an average of three 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.

Shared Decision-Making Roles: Descriptive Statistics

Of the 74 pairs of Syrian refugee parents, "towards shared" decision-making was reported for 20.3%, 23.0%, and 21.6% for day-to-day, major life, and financial decisions, respectively (Table 1). "Not shared" decision-making was reported by 45.9%, 36.5%, and 70.3% of the participants for day-to-day, major life, and financial decisions, respectively. Among parents who classified decision-making as "not shared," most were categorized as father-dominant, 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 between day-to-day and major life decisions and 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 "towards 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. Changes in neither day-to-day nor major life decision-making roles were 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 ($EMM = .83$; 95% CI = 4.84, 12.82) had significantly lower stress levels than those who were in the "towards shared" decision-making category ($EMM = 16.08$; 95% CI = 12.50, 19.67) ($p = .020$). For socio-demographic factors, higher age was significantly associated with less perceived stress ($adj\beta = -0.35$; 95% CI = $-0.63, -0.06$; $p = .017$). 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; $p = .051$). Additionally, fewer years in Canada ($adj\beta =$

Table 1 Characteristics of the Sample of Syrian Refugee Parents Resettled in the GTA.

Characteristic		N (%)	Mean (SD)	Range
Shared decision-making roles				
Day-to-day decisions	Always shared	48 (32.4)		
	Towards shared	30 (20.3)		
	Not shared	68 (45.9)		
Major life decisions	Always shared	58 (39.2)		
	Towards shared	34 (23.0)		
	Not shared	54 (36.5)		
Financial decisions	Always shared	10 (6.8)		
	Towards shared	32 (21.6)		
	Not shared	104 (70.3)		
Socio-demographic factors				
Parent	Mother	74 (50.0)		
	Father	74 (50.0)		
Age			35.53 (6.29)	21.0–50.0
Number of children			3.93 (1.65)	1.0–9.0
Number of relatives in the GTA			3.63 (5.53)	0.0–40.0
Number of friends in the GTA	1 = 0	13 (8.8)		
	2 = 1	6 (4.1)		
	3 = 2–3	24 (16.2)		
	4 = 4+	105 (70.9)		
Economic factors				
Family employed	No	64 (43.2)		
	Yes	82 (55.4)		
Education	None or Elementary	45 (30.4)		
	Secondary or HS	70 (47.3)		
	HS or above	32 (21.6)		
Income	1 = Low	34 (23.0)	2.42 (0.96)	1.0–5.0
	2 = Lower-middle	30 (20.3)		
	3 = Middle	69 (46.6)		
	4 = Upper-middle	12 (8.1)		
	5 = Upper	1 (0.7)		
English proficiency	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)		

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Table 1 *Continued.*

Characteristic		N (%)	Mean (SD)	Range
Housing satisfaction	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				
Sponsorship	GAR	75 (50.7)		
	PSR	59 (39.9)		
	BVOR	12 (8.1)		
Refugee camp	No	123 (83.1)		
	Yes	22 (14.9)		
Sense of belonging to Canada	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)		
Years in Canada			2.70 (1.0)	0.0–7.0
Family functioning			1.54 (0.40)	1.0–3.0

Note. GTA = Greater Toronto Area; HS = high school; GAR = Government Assisted Refugee; PSR = Privately Sponsored Refugee; BVOR = Blended Visa Office-Referrred.

1.39; 95% CI = 0.22, 2.55; $p = .020$) and a higher sense of belonging to Canada ($\text{adj}\beta = -3.38$; 95% CI = $-5.14, -1.61$; $p < .001$) both pointed to lower stress levels among Syrian refugee parents resettled in the GTA.

DISCUSSION

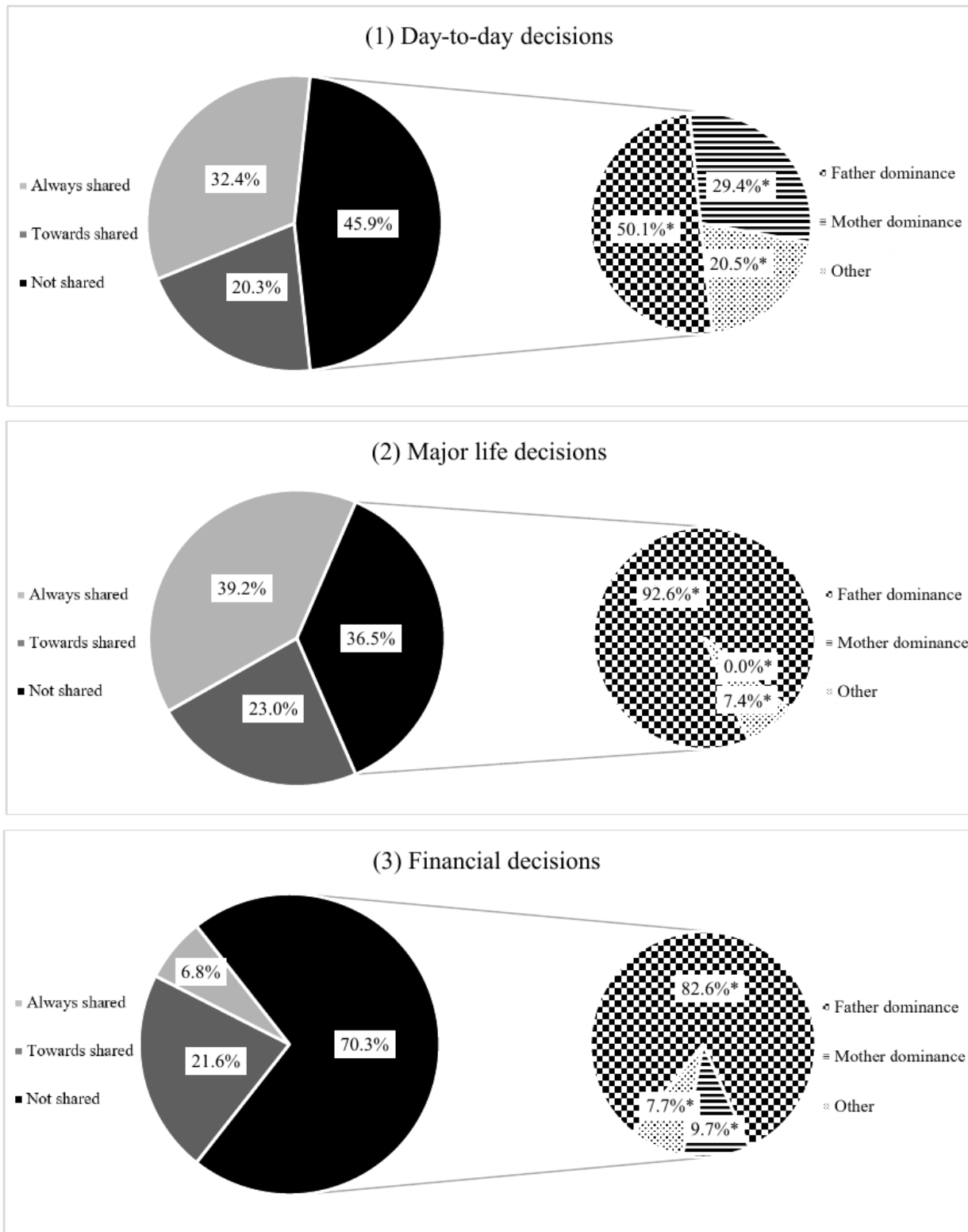
The current cross-sectional study assessed the changes in shared decision-making roles in day-to-day, major life, and financial decisions pre- and post-migration and examined the relationship of those changes to perceived stress among Syrian refugee parents resettled in the GTA. While families differed in whether their gender roles changed, it was generally not related to perceived stress, except in those families where the father lacked access to the traditional role of breadwinner; in families where both partners were unemployed, those who “always shared”

decision-making had significantly less stress than those demonstrating a changing gender relationship “towards shared” financial decision-making. However, perceived stress was not significantly associated with day-to-day and major life decisions separately.

Changes to Shared Decision-Making Roles

Approximately 20% of participants were categorized as “towards shared” for all decision-making roles, suggesting that some changes were happening, despite the relatively short time the families had resided in Canada at the time of the study (Kim & Omizo, 2006). Notably, 21.6% reported shared financial decision-making. These families reported socio-economic hardship, a challenge that has been reported for other refugees in Canada (Beiser & Hou, 2001; Krahn et al.,

Figure 1 Shared Decision-Making Roles for Day-to-Day, Major Life, and Financial Decisions. Note. Asterisk (*) indicates percentages calculated out of the "not shared" category.



2000; Li et al., 2016). But changes in decision-making roles may both be aggravated by and lead to greater stress. The literature suggests that parents do not necessarily acculturate at

a similar pace (Hebbani et al., 2010; Khawaja & Milner, 2012), which may partially explain the relationship between acculturation stress and family conflict. Due to the nature of

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.

Characteristic		Unadj β (SE)	MMs (SE)	95% CI	p
Shared decision-making roles					
Day-to-day decisions	Always shared		11.60 (1.14)	9.36, 13.85	.766
	Towards 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	.721
	Towards 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	.025
	Towards shared		12.8 (1.69)	9.50, 16.12^a	
	Not shared		12.49 (0.72)	11.08, 13.90	
Socio-demographic factors					
Parent	Mother		13.39 (0.82)	11.78, 15.00	.037
	Father		11.20 (0.83)	9.58, 12.83	
Age		-0.18 (0.09)		-0.36, 0.01	.058
Number of children		0.22 (0.44)		1.09, 0.24	.622
Number of relatives in the GTA		-0.16 (0.07)		-0.30, -0.02	.029
Number of friends in the GTA		-1.46 (0.60)		-2.64, -0.29	.015
Economic factors					
Family	No		12.86 (1.10)	10.69, 15.03	.369
Employed	Yes		11.67 (0.73)	10.24, 13.10	
Education	None or Elementary		12.90 (0.86)	11.22, 14.59	.714
	Secondary or HS		11.92 (0.87)	10.23, 13.63	
	HS or above		12.36 (1.31)	9.79, 14.93	
Income		-1.02 (0.68)		-2.35, 0.32	.135
English Proficiency		-0.22 (0.54)		-1.28, 0.83	.678
Housing satisfaction		-1.35 (0.48)		-2.29, -0.41	.005
Resettlement and health factors					
Sponsorship	GAR		11.71 (0.91)	9.93, 13.49^a	.001
	PSR		12.10 (0.98)	10.21, 13.99^b	
	BVOR		16.75 (1.25)	14.31, 19.19^{a,b}	
Refugee camp	No		12.08 (0.69)	10.74, 13.42	.339
	Yes		13.95 (1.84)	10.35, 17.56	

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the traditional patriarchal family model, men tend to find their dominant role challenged in Western societies, especially when they are unable to fulfill their traditional responsibilities of being breadwinners in

the family (Darvishpour, 2002). Fathers may use a separation strategy to maintain their role and status in the family by resisting the new culture and keeping their authoritarian roles while expecting the mothers and other

Table 2 *Continued.*

Characteristic	Unadj β (SE)	MMs (SE)	95% CI	p
Sense of belonging to Canada	-2.84 (0.73)		-4.28, -1.40	.000
Years in Canada	0.38 (0.50)		-0.60, 1.35	.449
Family functioning	5.29 (1.19)		2.95, 7.62	.000

Note. Bolded text indicates significance. Mean differences marked with a superscript letter are significantly different. GEE = generalized estimation equation; MMs = marginal means; GTA = Greater Toronto Area; HS = high school; GAR = Government Assisted Refugee; PSR = Privately Sponsored Refugee; BVOR = Blended Visa Office-Referred.

^a The MM for the category is significantly different from the MM of the other category marked with ^a. ^b The MM for the category is significantly different from the MM of the other category marked with ^b. ^{a,b} The MM for the category marked with ^a is significantly different from the MM with ^{a,b}, and the MM marked with ^b is significantly different for the MM of the category marked with ^{a,b}.

Table 3 Adjusted GEE Model to Assess the Relationship Between 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.

Characteristic	Adj β (SE)	EMM (SE)	95% CI	p	
Shared decision-making roles					
Day-to-day decisions	Always shared	11.51 (1.76)	8.04, 14.99	.449	
	Towards shared	13.79 (1.44)	10.97, 16.61		
	Not shared	13.27 (1.31)	10.70, 15.83		
Major life decisions	Always shared	12.87 (1.17)	10.58, 15.16	.953	
	Towards shared	13.09 (1.41)	10.32, 15.86		
	Not shared	12.61 (1.75)	9.18, 16.03		
Financial decisions	Family employed			.020	
	Always shared	No	8.83 (2.04)		4.84, 12.82^a
		Yes	13.16 (2.23)		8.79, 17.54
	Towards 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		

Continued on next page

family members to accept their dominance (Hyman et al., 2008). Interestingly, there were not more couples in the "towards shared" category for financial decision-making than in that for other types of decisions.

For financial decisions, roles were reported as "always shared" among only 6.8% of parents, whereas in major life decisions, 39.2% of parents reported "always shared" decision-

making. Roles in making major life decisions differ from the other decision-making roles, as they are practised indefinitely, whereas financial decision-making is practised more consistently and frequently. Thus, it may be negotiated differently. More research is required to explore these differences and assumptions further, especially since qualitative studies have suggested the potential

Table 3 *Continued.*

Characteristic		Adj β (SE)	EMM (SE)	95% CI	p
Socio-demographic factors					
Parent	Mother		13.05 (1.39)	10.32, 15.79	.803
	Father		12.66 (1.45)	9.81, 15.51	
Age		-0.35 (0.15)		-0.63, -0.06	.017
Number of children		0.40 (0.66)		-0.90, 1.70	.546
Number of relatives in the GTA		-0.14 (0.10)		-0.33, 0.05	.143
Number of friends in the GTA		-0.17 (0.96)		-2.04, 1.71	.860
Economic factors					
Education	None or Elementary		11.73 (1.49)	8.81, 14.64	.201
	Secondary or HS		11.93 (1.15)	9.67, 14.18	
	HS or above		14.92 (2.02)	10.95, 18.88	
Income		-0.80 (0.75)		-2.27, 0.66	.283
English proficiency		-0.61 (0.70)		-1.99, 0.77	.384
Housing satisfaction		-0.66 (0.53)		-1.71, 0.39	.216
Resettlement and health factors					
Sponsorship	GAR		11.09 (1.43)	8.28, 13.89^a	.051
	PSR		12.14 (1.54)	9.12, 15.17	
	BVOR		15.34 (1.78)	11.84, 18.83^a	
Refugee camp	No		12.41 (0.69)	11.05, 13.76	.673
	Yes		13.30 (2.13)	9.11, 17.49	
Sense of belonging to Canada		-3.38 (0.90)		-5.14, -1.61	.000
Years in Canada		1.39 (0.60)		0.22, 2.55	.020
Family functioning		1.84 (1.48)		-1.06, 4.74	.213

Note. Bolded text indicates significance. GEE = generalized estimation equation; MMs = marginal means; GTA = Greater Toronto Area; HS = high school; GAR = Government Assisted Refugee; PSR = Privately Sponsored Refugee; BVOR = Blended Visa Office-Referred.

^a The mean differences are significantly different.

for a decrease in migrants' traditional gender role beliefs upon resettlement (Eagly & Wood, 1991; Guimond et al., 2007; Murphy et al., 2017; Steil, 1997).

Relationship Between Shared Decision-Making Roles and Perceived Stress

The overall PSS-10 score found for the sample was considered low (Cohen et al., 1983), and was relatively lower than other refugee studies that reported perceived stress worldwide (Ali-Hassan et al., 2021). Different rates

of mental health problems and stressors have been observed in different countries (Li et al., 2016), with high-income countries showing varying rates due to the exposure to social conditions leading to stressful events, which may have cumulative effects (Alfadhli & Drury, 2016; Bogic et al., 2015; Hynie, 2018b). In Canada, all refugees are offered reception, orientation, and assistance programs for housing, language, education, and employment and receive basic medical and prescription services under the Interim Federal Health Program until they are eligible for

provincial insurance, as well as additional coverage for supplemental health costs in their first year (Hynie et al., 2019). Additionally, families are eligible for a child tax benefit, a tax-free monthly income to help with the cost of raising children under 18 years of age (Ali-Hassan et al., 2021), which may help explain the low stress levels observed in the sample.

Research on immigrant families from different cultural backgrounds has found that men and women adopt different acculturation strategies in the context of gender roles: men are more likely to hold on to their dominance, while women tend to acknowledge their rights and ability to gain financial freedom (Darvishpour, 2002). Conflict may therefore occur between partners after migration due to the shift of power and tasks, with women attempting to shift the power imbalance and men holding onto traditional roles (Flores et al., 2004; Lovell et al., 1987). The potential differences in the acculturation strategies adopted by the mother and the father may therefore result in more significant conflict and stress as parents transition to having 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 significantly lower perceived stress than those who were moving "towards shared" roles for making financial decisions. Those who already had established shared roles while living in Syria may have avoided the conflicts associated with negotiating new roles and exhibited the positive outcomes documented for couples with 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. 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, although the direction of causality may have been that experiencing less stress in Canada led to a greater sense of belonging (Ager & Strang, 2008; Baumeister & Leary, 1995). Interestingly, those who had spent longer in Canada reported higher stress levels, consistent with other research on refugees in Canada. Ahmad and colleagues (2021) found mental health to decrease over time among Syrian refugees in Canada, while Bridekirk et al. (2021) found that although more educated refugees are more likely to be employed, they reported a more significant decrease in mental health than those with lower education levels and less satisfaction with the quality of their employment.

The sponsorship program was borderline significantly associated with stress. Specifically, GARs had lower stress levels than BVORs. BVOR is a relatively new program that accounted for less than 10% of refugees resettled in Canada in 2016; hence, compared with GAR and PSR, it lacks research (Ali-Hassan et al., 2021; Houle, 2019). Moreover, BVORs accounted for only a small subsample of 8% in this study, which suggests against overinterpreting this finding. Previous research on Canadian sponsorship programs (i.e., GAR and PSR) has characterized distinct pre-migration differences and/or post-migration anticipated benefits that are attributed to the program's effec-

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

Limitations

Despite the significance of our findings, the results should be interpreted cautiously, as there are limitations. A principal limitation of this study lies in its cross-sectional nature. Participants were queried about their past and current decision-making roles, which were subsequently associated with their present perceived stress levels. This study design is susceptible to the challenge of reverse causality, introducing ambiguity regarding whether decision-making roles contributed to stress or if stress led to these roles. A more robust study design would entail a longitudinal approach, wherein participants are tracked over time to more accurately ascertain the relationship between decision-making roles and stress. There was also a potential for selection bias due to convenience sampling methods; Syrian refugees experiencing social isolation or significant hardships might be the hardest to reach. Further, although participants in our study were asked to answer to the best of their abilities, survey-based questionnaires may be subject to recall bias. In

addition, religious and ethnic issues were not considered, which may potentially present confounding bias in this study. 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 until they felt more securely settled.

CONCLUSION

The present study has reported on changes in shared decision-making roles in Syrian refugee parents and the impact of those changes on perceived stress. The findings overall suggest a shift to sharing decisions, categorized as “towards shared” decision-making in the methodology. 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. Though not addressed in this paper, future studies may want to assess gender differences with regard to shared decision-making role changes and perceived stress. Highlighting these differences may underscore how male and female refugees cope with post-migration stressors and provide insight into ways to enhance positive outcomes. Mitigating stress is an important part of the post-migration process, and it is imperative that refugees be provided with resources and opportunities to successfully adapt to their new communities. As the research presented here suggests, for families with children in particular, migration-related challenges might be further complicated by processes associated with family-related decision-making. Hence, future studies should consider the social and cultural challenges Syrian refugee parents may face in meeting the specific parenting needs to implement adequate family-level resources and facilitate integration.

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APPENDIX A

SHARED DECISION-MAKING ROLES SURVEY QUESTIONS ASKED TO A SAMPLE OF SYRIAN REFUGEE PARENTS RESETTLED IN THE GREATER TORONTO AREA

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, 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, 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, grandfather, or other
4. Currently, who controls the finances for the family?
 - (a) Mother
 - (b) Father
 - (c) Both mother and father
 - (d) Grandmother, 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, 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, grandfather, or other

APPENDIX B

CODES FOR COVARIATES USED IN THE GENERALIZED ESTIMATING EQUATION (GEE) MODEL

Socio-demographic factors	
Parent	1 = Mother 2 = Father
Age	
Number of children	
Number of relatives in the GTA	
Number of friends in the GTA	1 = 0 2 = 1 3 = 2–3 4 = 4+
Economic factors	
Family employed	0 = No 1 = Yes
Education	1 = None or elementary 2 = Secondary or HS 3 = HS or above
Income	1 = Low income 2 = Lower-middle income 3 = Middle income 4 = Upper-middle income 5 = Upper income
English proficiency	1 = None 2 = Very poor 3 = Poor 4 = Fair 5 = Good 6 = Excellent
Housing satisfaction	1 = Very unsatisfied 2 = Unsatisfied 3 = Neutral 4 = Satisfied 5 = Very satisfied

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Resettlement and health factors

Sponsorship

1 = GAR
2 = PSR
3 = BVOR

Refugee camp

0 = No
1 = Yes

Sense of belonging to Canada

1 = Very weak
2 = Weak
3 = Strong
4 = Very strong

Years in Canada

Family functioning

Note. GTA = Greater Toronto Area; HS = high school; GAR = Government Assisted Refugee; PSR = Privately Sponsored Refugee; BVOR = Blended Visa Office-Referred.