# **ORIGINAL ARTICLE**

# The impact of the demographic and migration process factors of refugee women on quality of life and the mediating role of mental health

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# Abstract

Purpose: This study aims to examine the effect of sociodemographic, before, during, and postmigration factors of women refugees on quality of life (QOL) and to assess the mediation effect of mental health as a mediator in the relationships.

Design and Methods: This cross-sectional study was conducted on 190 refugee women between June and August 2019. The data were analyzed using the structural equation model.

Findings: Before migration factors affect during migration. The during migration factors affect postmigration. The before, during, and postmigration factors affect the QOL directly or indirectly. Mental health mediates this effect.

Practice Implications: The study can guide interventional studies to increase the welfare of refugee women.

#### KEYWORDS

mental health, migration, quality of life, refugee, Turkey, women

#### 1 | INTRODUCTION

International migration and refugee problems are increasingly important in the globalizing world. 68.5 million people around the world are forced to move away from where they live due to conflict, torture, and violence.<sup>1</sup> In particular, this occurred after the social uprisings that started in countries such as Tunisia, Libya, Egypt, and finally Syria, known as "Arab Spring," and after the inner conflict in countries such as Iran, Iraq, Afghanistan which dramatically increased the number of refugees in the past few years.<sup>2</sup>

Refugees are on dangerous journeys and try to go to countries with better living conditions. Due to its geographic location in the middle of international migration routes, Turkey has one of the places for refugee mobility in the world.<sup>3</sup> There are more than

3.6 million refugees from Syria, 170,000 Afghanistan, 142,000 Iraq, 39,000 Iran, 5700 Somalia, and 11,700 other countries.<sup>1</sup> They entered and exited Turkey legally or illegally. In 2015 and 2016, more than 750,000 Syrian refugees have migrated out of the Balkans from Turkey to Western Europe.<sup>4</sup> The erratic nature of human mobility from Turkish soil to the European Union has the tragic consequences of the suffering and deaths of thousands of people.<sup>5</sup>

One of the most important changes in the phenomenon of migration in recent years is the feminization of migration, as the rate of women migrants has increased to 70%.<sup>6</sup> Reasons such as poverty, war, conflict, injustice in income distribution, and human rights violations have increased the number of women migrating. The negative effects of migration on women's health are more pronounced than men. Refugee women experience problems before and during migration, as well as

[Correction added on 29 June 2021 after first online publication: The order of authors has been changed in the byline at the request of the authors.]

changes in postmigration gender roles, socioeconomic problems, acculturation problems, social isolation, violence, and difficulty in accessing health care.<sup>7</sup> Furthermore, women have limited access to various services such as employment, social security, education, and health. In a review of studies conducted among Syrian women in Turkey, it is determined that the consanguineous marriage rate was 56%, the adolescent marriage rate was very high, and the rate of using antenatal care and the modern birth control use rate was inadequate.<sup>8</sup> All of these negatively affect the mental health and quality of life (QOL) of refugee women.<sup>9</sup>

# 1.1 | Theoretical framework

This study is structured according to the migration stages of Bhugra.<sup>10</sup> According to Bhugra's hypothetical model related to migration and psychiatric disorders, migration is a very complex phenomenon and migrants respond to some stressors related to before migration, during migration, and postmigration adjustment. In the model, the migration process was defined as "not a stage, but a series of events influenced by many factors." These factors examine in three chronological periods: (1) Before migration factors that may play a role in stress formation, such as the reason for migration and the geographic distance to be migrated. (2) During migration factors are the positive/negative events and losses experienced while migrating. (3) Social and economic factors such as length of stay in the new country, language learning, employment opportunities, and housing conditions are more impactful in the postmigration period. Demographic factors also play a key role in understanding the migration experience.<sup>10</sup>

Akinyemi et al.<sup>11</sup> presented a simple conceptual framework that demonstrates the relationship between mental health and QOL in refugees. The study revealed that mental health and QOL are interrelated and intertwined. It was determined that bad mental health can lead to lower QOL or vice versa. Araya et al.<sup>12</sup> examined the effects of trauma on QOL and mental health in Ethiopians displaced after the conflict on different hypothetical models. It was determined that the model, in which QOL is the outcome variable and mental distress acts as a mediator, has the best-fit values.

It was reported that studies conducted with refugees generally focus on only the problems experienced postmigration, and the studies that cover the migration process are limited.<sup>13</sup> However, more information is needed to assess the refugees' transition to a new society.<sup>14</sup> Given the large scale of the refugee crisis, this issue is important for the future health and well-being of many people especially refugee women. This study aims to examine the impact of migration and demographic factors on refugee women's QOL using a hypothetical model (Figure 1) and to assess the mediation effect of mental health in the relationship.

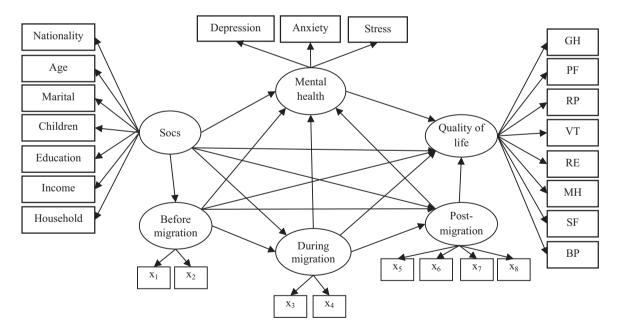


FIGURE 1 The hypothetical model and study hypotheses: H<sub>1</sub>: Sociodemographic factors affect before migration factors.

H<sub>2</sub>: Sociodemographic factors affect during migration factors. H<sub>3</sub>: Sociodemographic factors affect postmigration factors. H<sub>4</sub>: Sociodemographic factors affect mental health. H<sub>5</sub>: Sociodemographic factors affect the quality of life. H<sub>6</sub>: Before migration factors affect during migration factors. H<sub>7</sub>: Before migration factors affect postmigration factors. H<sub>8</sub>: Before migration factors affect mental health. H<sub>9</sub>: Before migration factors affect postmigration factors affect mental health. H<sub>9</sub>: Before migration factors affect mental health. H<sub>12</sub>: During migration factors affect the quality of life. H<sub>13</sub>: Postmigration factors affect on mental health. H<sub>14</sub>: Postmigration factors affect the quality of life. H<sub>15</sub>: Mental health factors affect the quality of life (as a mediator). Note: x<sub>1</sub>, the reason for migration; x<sub>2</sub>, the reason to prefer Turkey; x<sub>3</sub>, exposure to violence; x<sub>4</sub>, witnessing violence; x<sub>5</sub>, Turkish level; x<sub>6</sub>, length of stay in Turkey; x<sub>7</sub>, social integration; x<sub>8</sub>, the expectation of the future. BP, bodily pain; GH, general health; MH, mental health; PF, physical functioning; RE, role-emotional; RP, role physical; SF, social functioning; Socs, sociodemographics; VT, vitality

# 2 | METHODS

# 2.1 | Study design

This study uses structural equation modeling (SEM) with a crosssectional design.

#### 2.2 | Samples

This study was conducted between June 24 and August 29, 2019 at Afyonkarahisar Provincial Directorate of Migration Management in Turkey. The sample size for SEM analysis is 5-10 times the number of parameters and at least 150 participants are needed to reduce the estimation error.<sup>15</sup> As the number of parameters in this study is 27, the required number of participants is 135-270. A convenience sample of 190 refugee women who registered to the provincial migration center was chosen from the women who met the inclusion criteria, understood the purpose and consented to participate in this study.

The inclusion criteria for the study were the following: 18–65 years of age, be literate, be a refugee, live in the city center of Afyonkarahisar, born in Iran, Iraq, Afghanistan, and Syria (due to their greater number), not have communication problems, and agree to participate in the study. Women who do not meet the inclusion criteria, have chronic and mental health problems, and became pregnant were excluded from the study because of their increased vulnerability and possible confounding variables. Migrant women who were coming to Turkey by marriage, work, or education are excluded from the study.

The mean age of refugee women is  $31.9 \pm 9.9$ . Of the total, 27.4% of women were born in Afghanistan, 22.6% in Iran, 28.9% in Iraq, 21.1% in Syria. The mean gravidity is  $2.4 \pm 2.3$  and the mean number of households is  $4.7 \pm 2.0$ . A total of 15.3% of women are university graduates, 63.7% are married, 58.9% of women have low income; 25.3% of women migrated due to war, 43.2% due to terror, and internal turmoil; 54.7% of women were placed in Turkey by the United Nations; 17.4% of women experienced violence and 23.2% witnessed violence during migration; 38.5% of women do not know Turkish. Women's mean length of stay in Turkey is  $34.8 \pm 25.7$  months; 33.2% of women went to go back to their country when the problems are over and 60% of them want to go to another country.

# 2.3 | Data collection

The data were collected by a self-completion questionnaire. The survey was translated into Arabic and Persian languages by a sworn translator. To discover the suitability and comprehensibility of the questionnaire forms, a pilot study was conducted on 10 women different from the sample. A questionnaire is filled in 15–20 min. The targeted sampling was reached in 4 weeks. The second author, whose native language is Persian and who is fluent in Turkish, collected data from Iranian and Afghan refugees. A certified translator, with a first author, managed the data collection process for Iraqi and Syrian refugees, whose mother tongue is

Arabic. The data were collected in a room specially reserved to address the principle of confidentiality. After explaining the purpose of the study, the questionnaire was applied to women who agreed to participate in the study voluntarily.

# 2.4 | Variables

Independent variables of the study consist of demographic and migration-related factors that were questioned in three different chronological periods as in Bhugra's<sup>10</sup> model. The mediator variable of the study is mental health (Depression Anxiety Stress Scale [DASS]-21). The outcome variable of the research is the QOL (SF-36).

# 2.4.1 | Demographic variables

Demographic variables included birth country (grouped as Afghanistan; Iranian; Iraq; and Syria), age, marital status (grouped as single; married; widowed/divorced/separate), number of children, educational status (grouped as literate; primary school; middle school; high school; and university), income status (grouped as low; middle; and high), and number of households.

# 2.4.2 | The before migration factors

The before migration factors included causes of migration (grouped as war; terror and internal turmoil; sectarian conflicts; and socioeconomic problems) and the reasons for choosing to come to Turkey (grouped as relative presence; geographic proximity; and placed by the United Nations).

#### 2.4.3 | The during migration factors

The during migration factors included exposure to violence (grouped as no/yes) and witnessing violence (grouped as no/yes).

#### 2.4.4 | The postmigration factors

The postmigration factors included Turkish level (grouped as advanced level; medium-level; elementary level; and does not know), length of stay in Turkey, social integration (grouped as yes; partially; and no), and future expectations (grouped as a return to her country; stay in Turkey; and go to another country).

# 2.4.5 | Mental health

Mental health was evaluated with the DASS-21. DASS is used to embody the mental status of people. DASS was developed in 42 items and three factors<sup>16</sup> and was revised to 21 items by Brown et al.<sup>17</sup> There are seven questions in three subdimensions of the scale (Depression, Anxiety, and Stress). Scale items are in a 4-point Likert type. Each item is scored between 0 (not suitable for me) and 3 (completely suitable for me). To calculate the final score, the total score of DASS-21 is multiplied by 2 (https://maic.qld.gov.au/wpcontent/uploads/2016/07/DASS-21.pdf). As the total scores of the subdimensions of the scale increase, the severity of depression, anxiety, and stress of women increases.<sup>18</sup> Cronbach's alpha values of the subdimensions were between 0.75 and 0.81 in the Turkish adaptation study<sup>19</sup>; between 0.77 and 0.79 in the Persian adaptation study<sup>20</sup>; between 0.67 and 0.81 in the Arabic adaptation study<sup>21</sup>; 0.90 and 0.91 were found in our study. According to the results of confirmatory factor analysis (CFA) in our study ( $\chi^2$  statistic to degrees of freedom  $[\chi^2/df] = 1.837$ ; goodness of fit index [GFI] = 0.85; comparative fit index [CFI] = 0.95; Tucker-Lewis index [TLI] = 0.95; incremental fit index [IFI] = 0.95; and root mean square error of approximation [RMSEA] = 0.067), the factor loads of all items were above 0.50.

## 2.4.6 | Quality of life

QOL was evaluated with the SF-36. The scale includes eight factors consisting of 36 items: general health (GH) (5 items), physical function (10 items), role physical (4 items), vitality (VT) (4 items), role-emotional (RE) (3 items), mental health (MH) (5 items), social functioning (SF) (2 items), bodily pain (2 items), and a question about comparing the state of health a year ago and now. Items are scored between 0 (low) and 100 (high).<sup>22</sup> Cronbach's alpha values of the scale subdimensions were between 0.79 and 0.99 in the Turkish adaptation study<sup>23</sup>; between 0.77 and 0.90 in the Persian adaptation study<sup>24</sup>; between 0.78 and 0.93 in the Arabic adaptation study<sup>25</sup>; between 0.72 and 0.91 was found in our study. According to the results of CFA in our study ( $\chi^2/df = 1.457$ ; GFI = 0.85; CFI = 0.95; TLI = 0.96; IFI = 0.96; and RMSEA = 0.049), the factor loads of all items were above 0.50.

# 2.5 | Study hypotheses

Based on previous studies,<sup>10-12,26</sup> we developed a hypothetical model in the current study. Each pathway in the hypothetical model represents a hypothesis of the study (Figure 1). In the hypothetical model, the effects of migration process factors and demographic factors on the QOL of refugee women were examined, and the mediating role of mental health in this relationship was tested.

# 2.6 | Data analysis

The suitability of the data to normal distribution was evaluated with the Shapiro–Wilk test, skewness, and kurtosis coefficients. As the skewness and kurtosis coefficients are less than 2 and the critical ratio obtained by dividing the sample coefficient by its standard error is 1.691, the

assumption of normality has been accepted.<sup>27</sup> A one-way analysis of variance test was used to compare the scale scores of four ethnic groups. The origin of the difference was determined by the Bonferroni post hoc test. Correlation coefficients were calculated to evaluate the relationships between two quantitative variables. CFA was conducted to examine the validity of the scales. Also, Cronbach's alpha coefficients of the scales were calculated to test reliability. To define the relationship between the variables, a conceptual model was drawn by these relations (Figure 1). The factors identified in each scale were used to test the hypothetical model. To evaluate the relationship of variables specified in the conceptual model, the SEM was created with the bootstrap estimation method, and direct, indirect, and total effects were tested. Also, the mediation effect of mental health was investigated. The maximum probability likelihood technique was used. The fit indices are the ratio of the  $\chi^2/df$ , GFI, CFI, TLI, IFI, and RMSEA. Values of GFI at 0.85 or higher; CFI, TLI, and IFI at 0.90 or higher indicate a good fit. It shows a reasonable fit when the RMSEA value is 0.08 or less. The  $\chi^2/df$  at 2 or less is an indicator of a good fit.<sup>28,29</sup> Statistical Package for Social Sciences 22 and Analysis of Moment Structures 21 programs were used for statistical analysis. The statistical significance level was accepted as p < 0.05.

#### 2.7 | Ethical considerations

This study was approved by Afyonkarahisar Health Sciences University Clinical Research Ethics Committee (Date: May 3, 2019, Number: 2019/ 157), Afyonkarahisar Governorate (Date: March 14, 2019; Number: 377), and Ministry of Internal Affairs Directorate of Migration Policies and Projects (Date: March 22, 2019; Number: 62103649-000-E.17600). Informed consent was obtained from the women participating in the study. In this study, the ethical standards stated in the 1964 Helsinki Declaration and subsequent changes have been adhered to.

#### 3 | RESULTS

# 3.1 | Descriptive statistics and correlations between variables

Descriptive statistics for scale scores are presented in Table 1. The absolute values of the skewness and kurtosis numbers of each measured variable were found to be within the limits of normal distribution. There is a negative relationship between the mean scores of DASS-21 and SF-36 (between -0.32 and -0.69; p < 0.01). There is a positive correlation between the subdimensions of the scales (between 0.29 and 0.88; p < 0.01). Depression symptoms were found in 63.7% of refugee women, anxiety symptoms in 61.1%, and stress symptoms in 54.7%.

Differences between the mental health and QOL of refugee women were evaluated according to four ethnicities. Accordingly, it was found that women who were born in Afghanistan had a significant increase in depression and stress scores compared to other groups and a decrease in their QOL scores (p < 0.05). It was determined that the mental health (depression and stress) and QOL

				Skewnes-		Pearson co	Pearson correlations								Î
Scales	Subscale	Min-max	Mean±SD	s	Kurtosis	1	2	3	4	5	9	7	8	6	10
DASS	1. Depression	0-42	$15.6 \pm 11.8$	0.437	-0.779	1									
	2. Anxiety	0-40	$13.5 \pm 11.1$	0.519	-0.829	0.85**	1								
	3. Stress	0-42	17.7 ± 11.6	0.271	-0.831	0.88**	0.86**	1							
dol	4. General health	5-100	55.0±20.0	0.112	-0.461	-0.45**	-0.47**	-0.46**	1						
	5. Physical functioning	0-100	68.0±23.1	-0.481	-0.474	-0.32**	-0.36**	-0.33**	0.40**	1					
	6. Role-physical	0-100	47.3±37.8	0.153	-1.427	-0.35**	-0.35**	-0.39**	0.42**	0.48**	1				
	7. Vitality	0-100	$51.5 \pm 23.4$	0.089	-0.514	-0.64**	-0.61**	-0.66**	0.57**	0.36**	0.37**	1			
	8. Role-emotional	0-100	48.6±40.6	0.055	-1.575	-0.46**	-0.42**	-0.52**	0.38**	0.34**	0.63**	0.52**	1		
	9. Mental health	0-100	56.5±22.8	0.009	-0.684	-0.71**	-0.66**	-0.69**	0.53**	0.35**	0.38**	0.85**	0.50**	1	
	10. Social functioning	0-100	68.9±25.4	-0.491	-0.296	-0.60**	-0.53**	-0.60**	0.54**	0.29**	0.45**	0.65**	0.57**	0.64**	4
	11. Bodily pain	0-100	61.1±28.4	-0.265	-0.760	-0.48**	-0.47**	-0.50**	0.59**	0.44**	0.46**	0.53**	0.39**	0.50**	0.60**
Abbreviat ** <i>p</i> < 0.01.	Abbreviations: DASS, Depression Anxiety Stress Scale; QOL, Quality of Life. ** $p < 0.01$ .	xiety Stress Sc	ale; QOL, Quali	ity of Life.											

**TABLE 1** Descriptive statistics of scale scores (n = 190)

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(GH, VT, RE, MH, and SF) of women born in Syria are in a better state compared to other groups (p < 0.05).

#### 3.2 | Test of the hypothetical model

In the SEM analysis, the hypothetical model's fit values were found to be poor ( $\chi^2/df = 3.149$ ; GFI = 0.74; CFI = 0.74; TLI = 0.71; IFI = 0.75; and RMSEA = 0.107). For this reason, statistically insignificant paths were removed from the model. After modifications were made, it was determined that the final model had an acceptable level of fit ( $\chi^2/df =$ 1.961; GFI = 0.87; CFI = 0.93; TLI = 0.92; IFI = 0.93; and RMSEA = 0.071). The fit values of the model, in which the mental health latent variable does not have a mediation effect, were poor ( $\chi^2/df = 2.434$ ; GFI = 0.86; CFI = 0.87; TLI = 0.85; IFI = 0.88; and RMSEA = 0.087). It can be said that mental health is an important mediator due to the better fit values of the model in which mental health is mediated.

#### 3.3 | Effects of variables on the QOL

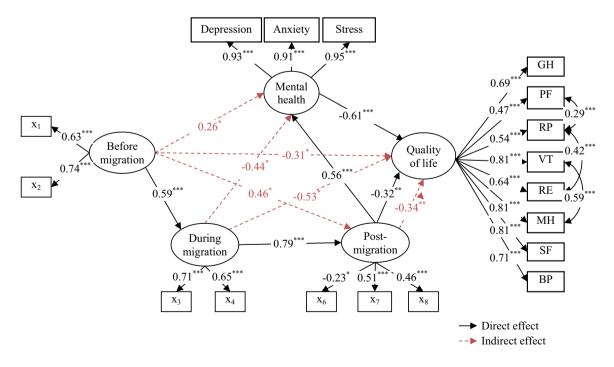
The path diagram of the final model is given in Figure 2 and the standardized regression weights are given in Table 2. Five of the fifteen paths proposed by the hypothetical model are statistically significant (accept H<sub>6</sub>, H<sub>10</sub>, H<sub>13</sub>, H<sub>14</sub>, and H<sub>15</sub>; p < 0.05). Before migration factors of women were associated with during migration factors (p < 0.001). During migration factors of women were associated with postmigration factors (p < 0.001). Postmigration factors are related to both mental health (p < 0.001) and QOL (p < 0.01).

When the direct effect of the measured variables on the QOL is examined (Table 2 and Figure 2), before migration factors of women positively affect the during migration factors ( $\beta = 0.59$ ; p < 0.05) and explain 35% of the variability during migration factors. During migration factors positively affect postmigration factors ( $\beta = 0.79$ ; p < 0.05) and explain 62% of the variability of postmigration factors. Postmigration factors affect mental health ( $\beta = 0.56$ ; p < 0.01) and explain 31% of the variability of mental health. Postmigration factors ( $\beta = -0.32$ ; p < 0.05) and mental health ( $\beta = -0.61$ ; p < 0.05) were found to be associated with QOL and both explain 71% of the variability of the QOL.

When the indirect effect of the measured variables on the QOL is examined (Table 2 and Figure 2), before migration factors indirectly affect postmigration factors ( $\beta = 0.46$ ; p < 0.05), mental health ( $\beta = 0.26$ ; p < 0.05), and QOL ( $\beta = -0.31$ ; p < 0.05). During migration factors indirectly affect mental health ( $\beta = 0.44$ ; p < 0.05) and QOL ( $\beta = -0.53$ ; p < 0.05). Postmigration factors indirectly affect QOL through the mediating effect of mental health ( $\beta = -0.34$ ; 95% confidence interval [-0.45, -0.25]).

# 4 | DISCUSSION

More people in the world are on the move than ever before. Some individuals seek better living conditions for themselves and their families, while others are forced to act due to disaster or conflict. Being a



**FIGURE 2** The final model. Note:  $x_1$ , the reason for migration;  $x_2$ , the reason to prefer Turkey;  $x_3$ , exposure to violence;  $x_4$ , witnessing violence;  $x_5$ , Turkish level;  $x_6$ , length of stay in Turkey;  $x_7$ , social integration;  $x_8$ , the expectation of the future. BP, bodily pain; GH, general health; MH, mental health; PF, physical functioning; RE, role-emotional; RP, role physical; SF, social functioning; VT, vitality. \*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001

Endogenous variables	Exogenous variables	β	CR (p)	SM- C	SDE (p)	SIE (p)	STE (p)
During migration	Before migration	0.59	3.996 (***)	0.35	0.59 (0.026)		0.59 (0.026)
Postmigration	Before migration			0.62		0.46 (0.026)	0.46 (0.026)
	During migration	0.79	4.237 (***)		0.79 (0.034)		0.79 (0.034)
Mental health	Before migration			0.31		0.26 (0.025)	0.26 (0.025)
	During migration					0.44 (0.018)	0.44 (0.018)
	Postmigration	0.56	4.152 (***)		0.56 (0.002)		0.56 (0.002)
Quality of life	Before migration			0.71		-0.31 (0.023)	-0.31 (0.023)
	During migration					-0.53 (0.010)	-0.53 (0.010)
	Postmigration	-0.32	-2.894 (0.004)		-0.32 (0.030)	-0.34 (0.002)	-0.67 (0.003)
	Mental health	-0.61	-6.697 (***)		-0.61 (0.028)		-0.61 (0.028)

#### TABLE 2 Effects of variables in the final model

Abbreviations: β, regression coefficient; CR, critical ratio; SDE, standardized direct effect; SIE, standardized indirect effect; SMC, square of multiple correlations; STE, standardized total effect.

\**p* < 0.05.; \*\**p* < 0.01.; \*\*\**p* < 0.001.

woman significantly affects the migration process, and is also affected by migration. Psychosocial pressures, different cultural expectations, and reasons such as the lack of education or language proficiency of women make migrant women disadvantaged. Therefore, it is important to understand how gender interacts with migration.<sup>30</sup>

The World Health Organization identifies refugees as a population exposed to extreme stress factors and therefore mental health problems.<sup>31</sup> In a study conducted in the Swedish refugee camp, more than half of the refugees were found to be at risk of depression, anxiety, and posttraumatic stress disorder.<sup>14</sup> In the current study, it was identified that about two of three refugee women had symptoms of depression and anxiety, more than half had stress symptoms, and the demographic factors do not affect other variables. In a systematic review of mental health problems among refugees, the relationship between demographic factors (except for sex) and mental health was found to be contradictory. Although mental problems are more common in women in general, at least one out of every five refugees has been found to have depression, anxiety, or posttraumatic stress disorder.<sup>32</sup>

When examining the impact of the migration process on refugees, the migration process should be considered as a whole. Otherwise, both the results of the research and the interventions to increase the welfare of refugee women are more likely to be incomplete or inaccurate.<sup>33</sup> For this reason, the factors related to the migration process were questioned in three periods in our study. Mental health and QOL of women who had to migrate due to war, terror acts, and internal turmoil in their country before migration, who were placed by the United Nations to Turkey, and who have been subjected to violence or witnessed violence during the migration are worse off. In a study carried out in Norway, the mental and physical health of the refugees who were forcibly displaced were worse than those who voluntarily migrated.<sup>34</sup> In a study conducted with refugees in Lebanon, it was found that exposure to torture, political pressure, and traumatic events increased the level of posttraumatic stress.<sup>35</sup>

Refugee women face many negative factors in the postmigration period. Social conditions make refugee women more disadvantaged. In a study conducted in Turkey, mental problems were associated with a lack of social support and the ability to speak Turkish among Syrian refugee women.<sup>36</sup> In our study, it is determined that the mental health and QOL of women who come to Turkey shortly before, do not adapt to social life, and want to migrate to another country are poor. In our study, it was determined that the level of knowing Turkish refugee women did not affect their mental health and OOL. However, it has been reported that Syrian refugees who do not know Turkish cannot benefit from mental health services sufficiently.<sup>37</sup> In the systematic review of 86 studies with refugees, it was found that inadequate acculturation, living alone, lack of social support, perceived discrimination, and long-term residence of migrants in the host country increased the risk of mental illness of refugees. In contrast, language proficiency, family reunification, and perceived social support reduce this possibility.<sup>38</sup> Perhaps these factors may have contributed to mental well-being by increasing the socialization of refugee women. On the other hand, the duration of refugees of duration stay in Italy did not affect the QOL.<sup>39</sup> Complaints about mental disorders also increased in refugees who stayed longer in the asylum center in Sweden.<sup>14</sup> Among the refugee women living in Germany, subjective experiences close to death, lack of health services in case of illness, and being exposed to violence by a family member is identified as the most important determinant of the QOL.<sup>40</sup> These differences may be caused by the ethnic origin differences of refugee women or the living conditions of the host countries.

The number of refugees attempting to reach Europe is increasing day by day using the Balkan route via Turkey. In a study conducted with Syrian refugees in Turkey, it was found that refugees who prefer to migrate to Europe have higher-level education levels, lower-income status, and had worse living conditions. Also, these refugees live generally in urban areas; they do not have relatives living in Syria, have worse mental WILEY-Perspectives in PSYCHIATRIC CARE

health and QOL.<sup>41</sup> In our study, it was determined that one out of every three refugee women wanted to go to another country. These results indicate that especially women who want to improve their QOL do not want to stay in Turkey. In other words, the socioeconomic difficulties and negative living conditions experienced postmigration are important variables that determine the preference to go to another country. Indeed, Turkey announced that it will not prevent refugees who want to go to Europe on February 27, 2020. According to the Ministry of Internal Affairs, in about 20 days from this date (between February 27, 2020 and March 13, 2020), 76,358 refugees left Turkey (https://tr.euronews.com/ 2020/03/01/ankara-bm-ve-yunanistan-tan-farkl-say-lar-turkiye-den-kacgocmen-gitti).

Previous research showed that refugees' QOL and mental health problems were negatively correlated.<sup>14</sup> In our study, similar to the literature, a negative relationship was found between the QOL and mental health problems in refugee women. Akinyemi et al.<sup>11</sup> revealed that refugees' mental health and QOL are interrelated and intertwined. Poor mental health has been associated with poor QOL (or vice versa). Investing in the education of refugee children, increasing access to health services, improving housing conditions, and providing basic needs in refugee camps have significantly improved QOL and mental health. Although there exist free mental health services for refugees in Turkey, difficulties in access to these services have been found to occur.<sup>37</sup> Unfortunately, mental health problems still seem to be an important health problem for refugee women. We think that refugee women will continue their migration journeys as long as their hopes of returning to their homeland disappear and they face difficult living conditions in the places they migrate.

# 4.1 | Limitations

This study has some limitations. The first is that it includes a crosssectional design and a limited sample. Therefore, the results cannot be easily generalized to other refugees. Second, the data were obtained by self-report questionnaire. This is particularly important because the mental problems experienced by the participants have not been clinically confirmed. Also, mental health was evaluated with DASS-21 and as a subdimension of SF-36 in the study. Therefore, there may be some conflicts between these two concepts. Third, it is not known whether women are suffering from physical health problems that cause depressive symptoms as physical health examinations were not performed.

# 5 | CONCLUSION

Our results show that improving migration process factors will reduce mental health problems and improve the QOL of refugee women. In this sense, our study can guide interventional studies to increase the welfare of refugee women. The contribution of this study is therefore related primarily to this sample and the unique factors present in the postmigration (host) country, and the potential for identifying factors that can be used in improving QOL. It may be possible to significantly reduce the mental health burden of refugee women and improve their QOL, especially by improving migration factors that are more controllable such as learning the language of the host country and increasing participation in social life. Also, more investment in support systems by international, national, and social stakeholders and improvement of minimum living conditions of refugees are required.

# 6 | IMPLICATIONS FOR NURSING PRACTICE

Nurses have important responsibilities in protecting and improving the health of migrant women. Nurses should be aware that migrant women are at-risk groups and their problems and living conditions should be evaluated. Nurses, using the transcultural care approach, should organize activities, public spots, screening, and training programs for migrant women to facilitate adaptation to the migration process. Besides this, transcultural care should be combined with nursing education, research, and practice.

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#### CONFLICT OF INTERESTS

The authors declare that there are no conflict of interests.

#### AUTHOR CONTRIBUTIONS

Ayşe T. Ouyaba and Nastaran E. Parast contributed to the study conception and design. Material preparation, data collection, and analysis were performed by Ayşe T. Ouyaba and Nastaran E. Parast. The first draft of the manuscript was written by Ayşe T. Ouyaba. Ayşe T. Ouyaba and Nastaran E. Parast commented on previous versions of the manuscript. Ayşe T. Ouyaba and Nastaran E. Parast read and approved the final manuscript.

#### DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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