https://doi.org/10.15218/ejnm.2024.03 Erbil j. nurs. midwifery, Vol. 7, No. (1), May, 2024
Original Article

Assessment of Psychological Aspects among Refugees in Kurdistan Region-Iraq Refugee Camps

Ahmad Naif Ali; *Department of Nursing, College of Nursing, Hawler Medical University, Erbil, Iraq.*
(Correspondence: ahmed.ali@hmu.edu.krd).
Abdulqader Hussein Hamad; *Department of Nursing, College of Nursing, Hawler Medical University, Erbil, Iraq.*

ABSTRACT

Background and objectives: Syria's civil war has received the highest refugee crisis of the twenty-first century. As a result of their exposure to conflict, violence, and post-displacement stresses, Syrian refugees living in refugee camps in Kurdistan are at a greater risk of developing common mental illnesses. This study investigates the prevalence and predictors of depression, anxiety, and stress symptoms among Syrian refugees residing in the Kurdistan region of Iraq.

Methods: A quantitative descriptive study was conducted in refugee camps in Erbil, Sulaymaniyah, and Duhok in the Kurdistan region of Iraq from 1st September 20021 to 1st June 2022. Convenient sampling was used to collect 400 participants, and the depression, anxiety, and stress scale-21 (DASS-21) questionnaire was used to measure the level of depression, anxiety, and stress.

Results: The average age of participants was 37 ± 12.14 years; 71.8% were married, 53.3% had a smoking history, 92.2% were from Syria, and the average refugee duration was 9 ± 1.32 years. During the refugee process, 79.3% of refugees had a low socioeconomic position, 34.0% had anxiety, 23.1% had stress, 47.5% were depressed. There is a statistical association between gender and stress levels based on a p-value of 0.004 and between smoking history and stress with a p-value of 0.006.

Conclusion: According to the findings, most refugees suffer from extreme depression, moderate anxiety, and severe stress. Further studies are required by competent authorities to overcome mental health disorders among refugees.

Keywords: Depression; Anxiety; Stress; Refugees.

Received: 22/07/2022 *Accepted: 06/11/2022* *Published: 30/05/2024*

INTRODUCTION

When Iraq recovered from years of conflict, thousands of vulnerable people stayed dislocated and required assistance. As of 31 August 2021, 248,721 Syrian refugees (61% urban, 39% camp) and 37,798 refugees of other nationalities lived in Iraq, with 98% of Syrian refugees residing in the Kurdistan Region. The United Nations High Commissioner for Refugees (UNHCR) conducted a participatory assessment in six offices/ten governorates (Erbil, Dohuk, Sulaymaniyah, Kirkuk, Ninewa, Baghdad, Basra, Anbar, Diyala, Kerbala, Salahaldeen) in July and August 2021 to ensure meaningful participation through structured discussion [1]. The migration process had a significant detrimental impact on refugees' mental health, and the majority of Syrian refugees in camps in the Kurdistan area of Iraq reported feeling distressed and anxious [2]. There is a significant prevalence of anxiety and depression, as well as elevated stress levels, among refugees who have been through the refugee resettlement process in the past [3]. Syria's civil war resulted in one of the biggest refugee crises in contemporary history. Turkey has the highest number of registered Syrian refugees, who are more likely to suffer from prevalent mental illnesses due to their dealings with war, brutality, and the stressors that come with being moved [4]. Even in wealthy countries like Germany, immigration and refugee policies seem to have a detrimental effect on mental health, and roughly half of the refugees experienced trauma, although participants' self-reported rates of melancholy, anxiety and stress symptoms were high. Refugees in Sweden's refugee camps report high levels of psychological discomfort and low quality of life. However, the service system appears to be able to assist them in overcoming this misery [6]. Syrian refugees in Kurdistan camps said that social interactions and environmental conditions are satisfactory but that home displacement has a detrimental effect on individual satisfaction [7].

METHODS

The nature of the present study is descriptive and cross-sectional, conducted between 1st September 2021 to 1st June 2022. A questionnaire was adopted in English and Arabic and a face-to-face interview was used. The questionnaires were divided into two parts. Part one included questions around sociodemographic characteristics such as age, sex, marital status, number of children, country of birth, migration status, level of education, employment status, insurance, types of education, duration of refugee, ownership before and after refugee, level of income before and after refugee, past psychiatry history, history of alcohol use, and history of smoking. Part two included questions using Lovibond's Depression, Anxiety, and Stress scale-21 (DASS 21). Lovibond's 1995 DASS-21 is a reliable quantitative screening instrument for depression, anxiety, and stress. There are seven items for depression, anxiety, and stress. They can be categorized as mild, moderate, severe, and extremely severe. The DASS-21 score was multiplied by two to determine the final result. Cronbach's coefficient was estimated to test the internal consistency of the measurement. The result for Cronbach's alpha is 0.927 for depression, 0.916 for anxiety, 0.922 for stress, and 0.921 for all of them together. The inclusion criteria were all refugees over 18 years old. The participants were refugees from the Kurdistan region of Iraq refugee camps in Erbil, Sulaymaniyah, and Duhok cities. According to the Cochran formula, the population sizes of Erbil, Sulaymaniyah, Dohuk, and the entire country are

(15459, 9580, 26384, and 51423), respectively, with a sample size of 382 based on a 95% confidence interval, a 5% margin of error, and 50% of the population percentage. In place of the 382 examples discovered by the Cochran formula, 400 cases were gathered in order to have a more reliable sample size. Following that, the sample sizes (400) were divided into three cities, Erbil, Sulaymaniyah, and Duhok, according to stratified sampling, as follows: Erbil (120), Sulamaniah (75), and Duhok (205). Then, convenience sampling was utilized to gather the data from Sulaymaniyah, Duhok, and Sulaymaniyah. Ethical approval from Hawler Medical University/ College of Nursing ethical committee was obtained. Face-to-face interviews were used to collect the data. The study's purpose was explained to the respondents who voluntarily participated. Chi-square is used to determine if the distributions of categorical variables differ, and the chi-squared test for independence shows whether two categorical variables are independent[11]. The respondents were also assurred that their responses would be considered confidential and utilized only for research, the data were entered into SPSS for analysis, and frequency, percentage, mean, standard deviation, and chi-square test were used to analyze the data.

RESULT

Table 1 shows the descriptive statistics for all demographic questions such as age, gender, marital status, number of children, education, past psychiatry history, past medical history, history of alcohol use, and history of smoking. The percentage of males (61.5%) is higher than the percentage of female participants (38.5%), while most of them are married (71.8%).

Most of the participants are aged between 21 and 30 years (30%), followed by 31-40 years (26.5%), 41-50 years (21.8%), more than 50 years (17%), and less than 21 years (4.8%) with the average being 37 years. The highest percentage of number of children in a family is between 1 and 3 children (32%), followed by 4-6 children (30.5%), and more than six children (7.5%). Thirty percent do not have any child, and the average number of children per family is 3. Most participants (27.3%) do not have any educational background, 24.8% can read and write, 17.3% completed primary school, 15.3% completed secondary school, 15% had a diploma/bachelor, and 5% were postgraduates. According to past psychiatry history, 88.8% did not have any past psychiatry history, 4.5% had depression, 4.3% had stress, and 2.5% had anxiety. On the other hand, 69.5% did not have any past medical history, while 15.8% had hypertension. The majority of the participants (87.8%) do not have a history of alcohol ,while 53.3% reported a history of smoking.

Table 1: Descriptive Statistics for Demographic Questions (A)

Variables		N (%)
Age	less than 21	19 (4.8%)
	21 - 30	120 (30%)
	31 - 40	106 (26.5%)
	41 - 50	87 (21.8%)
	51 and more	68 (17%)
	(Mean ± SD)	(37 ± 12.14)
Sex	Male	246 (61.5%)
	Female	154 (38.5%)
Marital Status	Single	106 (26.5%)
	Married	287 (71.8%)
	Divorced	7 (1.8%)
Number of Children	No child	120 (30%)
	1 - 3 Children	128 (32%)
	4 - 6 Children	122 (30.5%)
	More than 6 children	30 (7.5%)
	(Mean ± SD)	(3 ± 2.45)
Level of Education	Illiterate	109 (27.3%)
	Read and write	99 (24.8%)
	Primary School	69 (17.3%)
	Secondary School	61 (15.3%)
	Diploma or Bachelor	60 (15%)
	Postgraduate	2 (0.5%)
Occupation	Unskilled manual occupation	149 (37.3%)
	Semi-skilled manual occupations	37 (9.3%)
	Manual and non-manual occupations	8 (2%)
	Associate professional occupations	45 (11.3%)
	Skilled professional	8 (2%)
	Housewife	103 (25.8%)
	Student	50 (12.5%)
Employment	Employed	28 (7%)
	Unemployed	372 (93%)
History of Smoking	Presence	213 (53.3%)
	Absence	187 (46.8%)

Table 2 shows the descriptive statistics for all demographic questions such as migration of status, employment, insurance, occupation, duration of refugee, level of income before refugee, level of income during refugee, and place of living before refugee. The percentage of participants who migrated from Syria (92.2%) is higher than those who migrated to Turkey (7.8%). Most of them are unemployed (93%), and do not have insurance (99.5%). According to occupation results, most of the participants are in unskilled manual occupations (37.3%), followed by a housewife (25.8%), students (11.3%), semi-skilled manual occupations (9.3%), and both manual and non-manual occupations and skilled professional (2%) respectively. The highest percentage of duration of a refugee is between 9 and 12 years (75.8%), with the average refugee's duration being nine years. The majority of the participants had a medium level of income before refugee (80%), while most of them have low income during refugee (79.3%). The percentage of refugees living in urban areas is higher than those living in rural areas (47.3%).

,(%12.5)associate professional occupations

Table 2 : Descriptive Statistics for Demographic Questions (B)

Variables		N (%)
Migration of Status	Turkey	31 (7.8%)
	Syria	369 (92.2%)
Employment	Employed	28 (7%)
	Unemployed	372 (93%)
Insurance	Not insured	398 (99.5%)
	Insured	2 (0.5%)
Duration of Refugee	1 - 4	4 (1%)
	5 - 8	93 (23.3%)
	9 - 12	303 (75.8%)
	(Mean ± SD)	(9 ± 1.32)
Level of income before refugee	Low	14 (3.5%)
	Medium	320 (80%)
	High	66 (16.5%)
Level of income during refugee	Low	317 (79.3%)
	Medium	81 (20.3%)
	High	2 (0.5%)
Place of living before a refugee	Urban	211 (52.8%)
	Rural	189 (47.3%)
Past psychiatry history	Anxiety	10 (2.5%)
	Stress	17 (4.3%)
	None	355 (88.8%)
Past medical History	No medical history	278 (69.5%)
	Hypertension	63 (15.8%)
	Asthma	1 (0.3%)
	Diabetes	31 (7.8%)
	arrhythmia	6 (1.5%)
	peptic ulcer	11 (2.8%)
	migraine	5 (1.3%)
	heart failure	5 (1.3%)
History of alcohol use	Presence	49 (12.3%)
	Absence	351 (87.8%)
History of Smoking	Presence	213 (53.3%)
	Absence	187 (46.8%)

Table 3 shows the descriptive statistics for depression, anxiety, and stress. Overall, 26.8% had depression, 23.7% had stress, and 17.9% had anxiety. Most participants (32.3%) reported normal stress, 7.8% reported normal anxiety, and 2% reported normal depression. The percentage of mild anxiety (4.8%) is higher than mild depression (2.8%), while no participant reported mild stress. Thirty-four percent reported moderate anxiety, 27% reported moderate depression, and 26% reported moderate stress. Most of the participants reported severe stress (23%), followed by severe depression (20.8%) and severe anxiety (17.8%). Less than half (47.5%) of the participants had extremely severe depression, followed by extremely severe anxiety (35.8%) and extremely severe stress (18.8%).

Table 3 : Descriptive Statistics for Depression, Anxiety, and Stress

Levels	Depression N (%)	Anxiety N (%)	Stress N (%)
Normal	8 (2%)	31 (7.8%)	129 (32.3%)
Mild	11 (2.8%)	19 (4.8%)	0 (0%)
Moderate	108 (27%)	136 (34%)	104 (26%)
Severe	83 (20.8%)	71 (17.8%)	92 (23%)
Extremely severe	190 (47.5%)	143 (35.8%)	75 (18.8%)
Mean	**26.80**	**17.93**	**23.66**
SD	**9.70**	**8.55**	**9.38**

Table 4 demonstrates that there is a statistically significant association between gender (male and female) with stress (p=0.004). The percentage of males experiencing severe stress (70.7%) is higher than the percentage of females (29.3 %), and the percentage of males suffering from extremely severe stress (65.3 %) is higher than the percentage of females (34.7%). There is no statistically significant association between gender (male and female) and depression (p=0.896) and anxiety (p=0.341).

Table 4 : Association between gender and (Depression, Anxiety, and Stress) using the Chi-square test

Levels			Sex		Total	Chi-Square	P-value
			Male	Female			
Depression	Normal	N (%)	5 (62.5%)	3 (37.5%)	8 (100%)	1.091	0.896
	Mild	N (%)	7 (63.6%)	4 (36.4%)	11 (100%)		
	Moderate	N (%)	67 (62%)	41 (38%)	108 (100%)		
	Severe	N (%)	47 (56.6%)	36 (43.4%)	83 (100%)		
	Extremely severe	N (%)	120 (63.2%)	70 (36.8%)	190 (100%)		
Anxiety	Normal	N (%)	17 (54.8%)	14 (45.2%)	31 (100%)	4.515	0.341
	Mild	N (%)	10 (52.6%)	9 (47.4%)	19 (100%)		
	Moderate	N (%)	82 (60.3%)	54 (39.7%)	136 (100%)		
	Severe	N (%)	40 (56.3%)	31 (43.7%)	71 (100%)		
	Extremely severe	N (%)	97 (67.8%)	46 (32.2%)	143 (100%)		
Stress	Normal	N (%)	63 (48.8%)	66 (51.2%)	129 (100%)	13.488	0.004
	Moderate	N (%)	69 (66.3%)	35 (33.7%)	104 (100%)		
	Severe	N (%)	65 (70.7%)	27 (29.3%)	92 (100%)		
	Extremely severe	N (%)	49 (65.3%)	26 (34.7%)	75 (100%)		

Table 5 shows a statistically significant association between smoking history (smoker and non-smoker) and stress (p=0.006). The percentage of participants with a history of smoking had severe stress (56.5%) compared with those who do not have a past history of smoking (43.5%). Participants with a history of smoking had less extremely severe stress (50.7%) compared to those without history of smoking (49.3%. There is no statistically significant association between the history of smoking (smoker and non-smoker) with depression (p=0.781) and anxiety (p=0.501).

Table 5 : Association between the history of Smoking and (Depression, Anxiety, and Stress) using the Chi-square test

Levels			History of Smoking		Total	Chi-Square	p-value
			Presence	Absence			
Depression	Normal	N (%)	4 (50%)	4 (50%)	8 (100%)	1.755	0.781
	Mild	N (%)	6 (54.5%)	5 (45.5%)	11 (100%)		
	Moderate	N (%)	62 (57.4%)	46 (42.6%)	108 (100%)		
	Severe	N (%)	46 (55.4%)	37 (44.6%)	83 (100%)		
	Extremely severe	N (%)	95 (50%)	95 (50%)	190 (100%)		
Anxiety	Normal	N (%)	18 (58.1%)	13 (41.9%)	31 (100%)	3.352	0.501
	Mild	N (%)	9 (47.4%)	10 (52.6%)	19 (100%)		
	Moderate	N (%)	70 (51.5%)	66 (48.5%)	136 (100%)		
	Severe	N (%)	33 (46.5%)	38 (53.5%)	71 (100%)		
	Extremely severe	N (%)	83 (58%)	60 (42%)	143 (100%)		
Stress	Normal	N (%)	55 (42.6%)	74 (57.4%)	129 (100%)	12.586	0.006
	Moderate	N (%)	68 (65.4%)	36 (34.6%)	104 (100%)		
	Severe	N (%)	**52 (56.5%)**	40 (43.5%)	92 (100%)		
	Extremely severe	N (%)	38 (50.7%)	**37 (49.3%)**	75 (100%)		

DISCUSSION

In the present study, we focused to assess the level of psychological aspects such as depression, anxiety, and stress among refugees in the Kurdistan region. Men experience severe stress more than females, whereas males suffer very severe stress more than females. In contrast, a study in Istanbul shows a significant association between depression and gender [4]. In our study, most respondents expressed exteremly severe anxiety (47.5%), anxiety (35.8%), and normal stress (32.3%), Most respondents expressed significant stress, despair, and anxiety. A study among a similar age group of Syrian refugees demonstrates the need for psychological services due to the high level of low quality of life as a result of psychological disorders in Kurdistan refugee camps [7]. Research from Sweden reveals a high level of stress disorder and depression between the ages of 18-64 years old [12]. Our findings indicate that there is a statistically significant difference between smoking history and

stress (p=0.006). the percentage of history smokers have more severe stress (56.5%) in table 5 mention than those who do not have a smoking history, whereas the percentage of history smokers has less extremely severe stress than those who do not have a smoking history ((49.3%)). Some of the respondents used tobacco as a means of reducing their stress [13]. While Kurdish migrants used tobacco as a stress reliever, pre-migration trauma appeared to be related to lifelong tobacco use in Finland and Russia [14]. Additionally, Syrian refugees in Lebanon are inactive and smokers. Humanitarian organizations are developing regional healthcare systems as the crisis persists to give refugee populations better mental health services [15].

CONCLUSION

This study shows that the majority of the refugee population screened positive for depression, anxiety, and stress. There were statistically significant association between stress and gender. Also, different levels of stress correlated with smoking habits. We recommend further study on refugees based on mental health promotion by more competent authorities.

ACKNOWLEDGEMENTS

I would like to thank the higher education committee/ college of nursing for guiding us in the research process.

CONFLICT OF INTEREST

The authors have disclosed no potential conflicts of interest or sources of financial assistance.

REFERENCES

[1] UNHCR Iraq: 2021 Participatory Assessment of Refugees and Asylum-Seekers (June – August 2021) - Iraq | ReliefWeb [Internet]. 2021 [cited 2022 Jun 24]. Available from.

[2] Mahmood HN, Ibrahim H, Goessmann K, Ismail AA, Neuner F. Post-traumatic stress disorder and depression among Syrian refugees residing in the Kurdistan region of Iraq. Confl Health. 2019;13:51. Available from.

[3] Nissen A, Cauley P, Saboonchi F, J Andersen A, Solberg Ø. Mental health in adult refugees from Syria resettled in Norway between 2015 and 2017: a nationwide, questionnaire-based, cross-sectional prevalence study. Eur J Psychotraumatology. 2021;12 (1):1994218. Available from.

[4] Acarturk C, McGrath M, Roberts B, Ilkkursun Z, Cuijpers P, Sijbrandij M, et al. Prevalence and predictors of common mental disorders among Syrian refugees in Istanbul, Turkey: a cross-sectional study. Soc Psychiatry Psychiatr Epidemiol. 2021 Mar;56(3):475–84. Available from.

[5] Tejada JJ, Punzalan JR. On the misuse of Slovin's formula. The philippine statistician. 2012;61(1):129-36.

[6] Leiler A, Bjärtå A, Ekdahl J, Wasteson E. Mental health and quality of life among asylum seekers and refugees living in refugee housing facilities in Sweden. Soc Psychiatry Psychiatr Epidemiol. 2019 May;54(5):543–51. Available from.

[7] Aziz IA, Hutchinson CV, Maltby J. Quality of life of Syrian refugees living in camps in the Kurdistan Region of Iraq. PeerJ. 2014;2:e670. Available from.

[8] Böge K, Hahn E, Strasser J, Schweininger S, Bajbouj M, Karnouk C. Psychotherapy in the Kurdistan region of Iraq (KRI): Preferences and expectations of the Kurdish host community, internally displaced- and Syrian refugee community. Int J Soc Psychiatry. 2022 Mar;68(2):346–53. Available from.

[9] Fuhr DC, Acarturk C, McGrath M, Ilkkursun Z, Sondorp E, Sijbrandij M, et al. Treatment gap and mental health service use among Syrian refugees in Sultanbeyli, Istanbul: a cross-sectional survey. Epidemiol Psychiatr Sci. 2019 Nov 15;29:e70. Available from.

[10] Eslam Parast N, Taştekin Ouyaba A. The impact of the demographic and migration process factors of refugee women on quality of life and the mediating role of mental health.

Perspect Psychiatr Care [Internet]. 2022 [cited 2022 Jun 25];58(2):785–94. Available from.

[11] Aroian K, Uddin N, Blbas H. Longitudinal study of stress, social support, and depression in married Arab immigrant women. Health care for women international. 2017 Feb 1;38(2):100-17.

[12] Tinghög P, Malm A, Arwidson C, Sigvardsdotter E, Lundin A, Saboonchi F. Prevalence of mental ill health, traumas and postmigration stress among refugees from Syria resettled in Sweden after 2011: a population-based survey. BMJ Open. 2017 Dec 29;7(12):e018899. Available from.

[13] Mehra R, Mohanty VR, Y B A, Mehra K, Kapoor S. Afghan Frontier: Understanding Tobacco Practices among Migrant Population in India. Asian Pac J Cancer Prev APJCP. 2020 Jul 1;21(7):1931–7. avialable from.

[14] Salama ES, Castaneda AE, Lilja E, Suvisaari J, Rask S, Laatikainen T, et al. Pre-migration traumatic experiences, post-migration perceived discrimination and substance use among Russian and Kurdish migrants-a population-based study. Addict Abingdon Engl. 2020 Jun;115(6):1160–71. Available from.

[15] Sethi S, Jonsson R, Skaff R, Tyler F. Community-Based Noncommunicable Disease Care for Syrian Refugees in Lebanon. Glob Health Sci Pract. 2017 Sep 27;5(3):495–506. Available from.