© Psychiatr Psychol Klin 2023, 23 (3), p. 201–209
DOI: 10.15557/PiPK.2023.0025

Jakub Klas, Aleksandra Grzywacz, Mateusz Korga, Natalia Kluz,
Katarzyna Kulszo, Marzena Samardakiewicz

Otrzymano: 28.07.2023
Zaakceptowano: 17.10.2023
Opublikowano: 27.12.2023

Psychospołeczne problemy opieki medycznej nad ciężarną uchodźczynią – przegląd systematyczny

Psychosocial problems of healthcare for pregnant refugees – a systematic review

Zakład Psychologii Katedry Psychospołecznych Aspektów Medycyny, Uniwersytet Medyczny w Lublinie, Lublin, Polska
Adres do korespondencji: Jakub Klas, Zakład Psychologii Katedry Psychospołecznych Aspektów Medycyny, Uniwersytet Medyczny w Lublinie, ul. Witolda Chodźki 7, 20-093 Lublin, e-mail: jakubklas99@gmail.com

Department of Psychology, Psychosocial Aspects of Medicine, Medical University of Lublin, Lublin, Poland
Correspondence: Jakub Klas, Department of Psychology, Psychosocial Aspects of Medicine, Medical University of Lublin, Witolda Chodźki 7, 20-093 Lublin, Poland, e-mail: jakubklas99@gmail.com

ORCID iDs
1. Jakub Klas https://orcid.org/0000-0002-4795-1909
2. Aleksandra Grzywacz https://orcid.org/0009-0009-2552-4699
3. Mateusz Korga https://orcid.org/0000-0002-3317-5726
4. Natalia Kluz https://orcid.org/0000-0002-5801-5913
5. Katarzyna Kulszo https://orcid.org/0000-0002-8573-9714
6. Marzena Samardakiewicz https://orcid.org/0000-0002-2793-0756

Streszczenie

Wprowadzenie: W wyniku wzmożonych ruchów uchodźczych w ostatnich latach niezwykle ważne stało się poszukiwanie rozwiązań systemowych w celu jak najszybszego zapewnienia opieki medycznej osobom uciekającym do bezpiecznych krajów, w szczególności kobietom w ciąży. W tym celu konieczne jest poznanie istniejących problemów i wyzwań w opiece nad ciężarnymi uchodźczyniami oraz znalezienie propozycji ich rozwiązania. **Metody:** Przeprowadzono systematyczny przegląd literatury z lat 2016–2023 zgodnie z kryteriami PRISMA. **Wyniki:** Wśród problemów, z jakimi musi się zmierzyć uchodźczyni w ciąży, wymienia się: zmianę dynamiki rodziny, przyzwyczajenie się do nowego środowiska, strach o bezpieczeństwo, brak niezbędnego wsparcia, izolację od członków rodziny, a także przezwyciężenie traumatycznych doświadczeń sprzed ucieczki z kraju pochodzenia. Pomimo zdefiniowania strategii pomocy w krajach przyjmujących uchodźczynie ich wdrożenie często było dalekie od ideału, nawet w krajach wysoko rozwiniętych, co dodatkowo negatywnie wpływa na stan psychiczny uchodźczyń będących w ciąży. **Wnioski:** Opieka nad ciężarnymi uchodźczyniami wykracza daleko poza opiekę położniczą, jest to aktywny proces, którego głównymi celami są urodzenie zdrowego potomstwa, osiągnięcie zdrowia psychicznego, złagodzenie stresu i integracja społeczna samej uchodźczyni, w tym relacje rodzinne. Mamy nadzieję, że wnioski wyciągnięte z błędów poprzednich doświadczeń pomogą krajom przyjmującym uchodźców przygotować się na sytuację, w której będą pomagać kobietom w ciąży w kryzysie, w tym w zapewnieniu pomocy psychologicznej.

Słowa kluczowe: uchodźcy, ciąża, psychospołeczne problemy, opieka medyczna

Abstract

Introduction: As a result of increased refugee movements over the past few years, it is important to seek systemic solutions to provide medical care to those fleeing to safe countries as soon as possible, especially to pregnant women. To this end, it is necessary to know the existing problems and challenges associated with the care of pregnant refugees, and to find solutions to address them. **Methods:** A systematic review of the literature from 2016–2023 was conducted according to the PRISMA criteria. **Results:** Refugee women face a range of problems that need attention, ranging from changes in family dynamics, getting used to a new environment, fear for safety, lack of necessary support, isolation from family members, to overcoming the traumatic experiences left behind in the country of origin. Despite the adoption of assistance strategies in countries hosting refugee women, their implementation has often been far from ideal, even in highly developed countries, which has further negatively affected the mental state of pregnant refugee women in highly stressful situations. **Conclusions:** Caring for pregnant refugee women goes far beyond maternity care. It is an active process in which the main goals include giving birth to healthy offspring, achieving mental health, stress relief, and social integration of the refugee women themselves, including family relationships. We hope that the lessons learned from the mistakes of previous experiences will help the refugee host countries prepare for situations in which they need to assist pregnant women in crisis, including the provision of psychological support.

Keywords: refugees, pregnancy, psychosocial problems, health care

INTRODUCTION

Ongoing and newly emerging armed conflicts and natural disasters are fuelling displacement around the world. A report by the United Nations High Commissioner for Refugees (UNHCR) published at the end of 2021 showed that the total number of forcibly displaced people worldwide was 89.3 million (UNHCR, 2021). Thus, the report's data show that every country must be ready to receive refugees, as the top 20 countries accepting refugees include countries in all continents.

In recent years, there has been a significant increase in the occurrence of natural disasters and local armed conflicts (Narain et al., 2022). In this situation, medical care should be tailored to the specific requirements of migrants, as they represent a population with an increased risk of overall morbidity and mortality. This is especially true for pregnant women. The physical and mental needs of migrant and refugee women are internationally recognised as a public health priority (van den Akker and van Roosmalen, 2016).

The percentage of women experiencing mental disorders is around 10% worldwide, whereas the prevalence of major depressive disorder episodes, as specified by the diagnostic criteria, during pregnancy is 12.7% (Fisher et al., 2012; Howard et al., 2014). Numerous studies have shown that mental conditions including anxiety disorders, depression, and post-traumatic stress disorder (PTSD) are much more common among refugee populations. The mental health of refugees is negatively affected by their experiences of war and exile. A special group are refugee women, who on account of their sex often occupy a low status in the social hierarchy and are exposed to additional stressors such as sexual violence, rape, forced abortions, and human trafficking. Other risk factors include financial and labour problems in resettlement countries (Shrestha-Ranjit et al., 2017; Vallejo-Martín et al., 2021). Pregnant refugee women, because of their migration experience, are at a greater risk of pregnancy-related complications (Gewalt et al., 2019). Most women do not have access to adequate prenatal care during migration. Lack of or late access to prenatal screening and testing is associated with poor pregnancy outcomes. Studies show that up to 15% of pregnant refugee women experience life-threatening obstetric complications, such as reduced foetal growth, caesarean section, stillbirth, various maternal complications, etc. (Dopfer et al., 2018).

Although continued access to medical care is greatly important for the health of the mother and child during pregnancy, childbirth and postpartum, refugee women often face a variety of problems and barriers that cause difficulties in receiving obstetric care in host countries. Among other things, such women have to cope with healthcare systems that are complicated for them, difficulties with communication due to unfamiliarity with the host country's language, and different treatment concepts compared to their previous experiences (Henry et al., 2020). In most of the studies reviewed, the most significant and frequently reported constraints hindering the use of healthcare services included language barriers, lack of knowledge and education about pregnancy and childbirth, specific cultural expectations and norms, and difficulties in understanding the complex healthcare system (Winn et al., 2018).

Consequently, individualised outreach to pregnant refugee women may be necessary to improve healthcare utilisation (including psychological and psychiatric support) in this group of patients. Therefore, the purpose of this systematic review is to organise the current state of knowledge on the nature of psychological problems faced by pregnant refugee women, in order to identify the most important aspects that distinguish these patients from other patients of maternity wards, which would significantly contribute to improving the outcomes of medical care provided to both the mother and the newborn.

At the same time, we realise that presenting all aspects of assistance required by refugee women is an extremely complex task. In addition to identifying the problems, one also needs to consider the positive effects of pregnant refugee women's stay in a safe country. In a place without the risk of armed conflict or natural disaster, they have a chance to give birth and raise healthy children.

Therefore, our study focuses on the psychosocial problems with which pregnant refugee women arrive in the host country, and which require assistance from medical personnel from the first days of her stay in the new country.

MATERIALS AND METHODS

A systematic review of the scientific literature from 2016–2023 was conducted using the PubMed and Scopus search engines, and selected according to the PRISMA-S checklist criteria (Rethlefsen et al., 2021).

The thematic search involved finding scholarly articles in PubMed and Scopus databases from 2016–2023 (i.e. a period when an increased number of articles were published on refugee-related topics) that met the following criteria: [healthcare] AND [refugee pregnancy] to find articles that met the review objectives as closely as possible. In addition, the review included two articles on the selected topic from other sources (Google Scholar). The search was limited to articles in English. Duplicate articles were removed, and abstracts of received articles were reviewed. The co-authors selected articles containing relevant data on the article's topic, namely the problems and characteristics of the psychological profile of pregnant refugee women. Lists of article proposals were presented to the other co-authors responsible for the relevant subsections of the paper, who decided to include it in the review (Fig. 1).

RESULTS

Of the 277 results identified in the databases, 21 papers consistent with the topic of the paper were ultimately included in the results of the systematic review (Fig. 1, Tab. 1).

DOI: 10.15557/PiPK.2023.0025

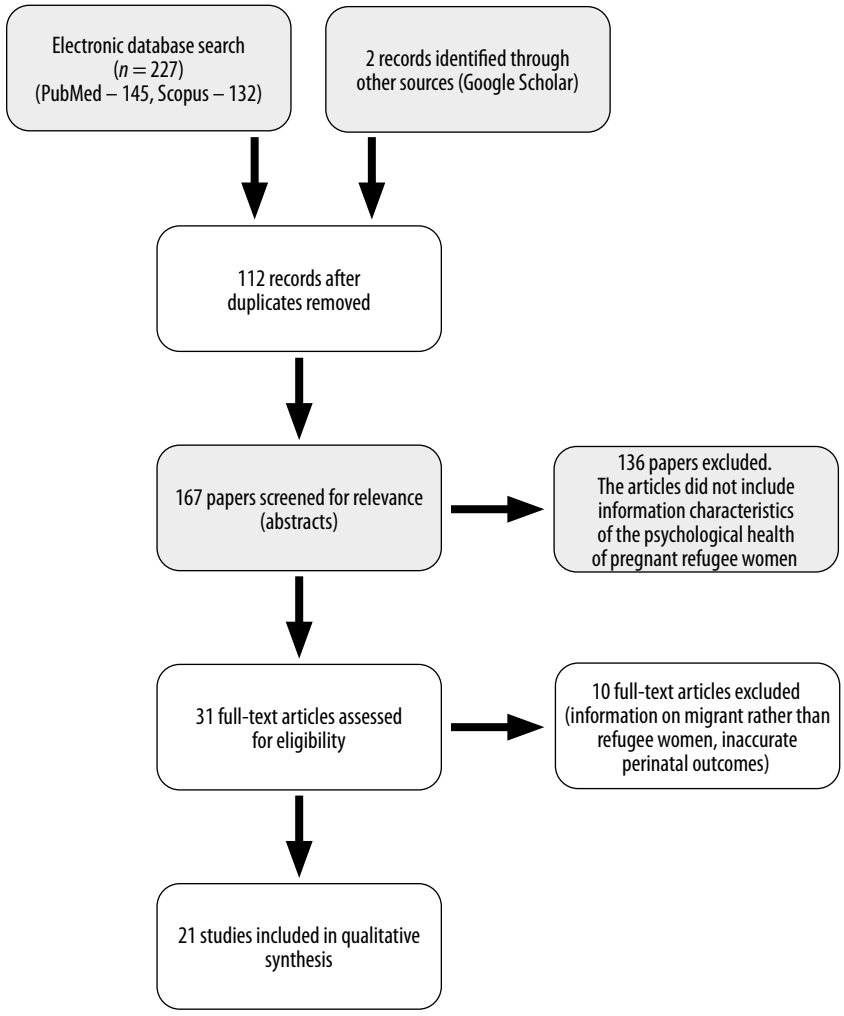

Fig. 1. Figures from the systematic review – based on Rethlefsen et al., 2021

We scrutinised the results of research on refugee women of different nationalities residing in refugee camps on almost all continents of the world. We believe that an overview of individual problems faced by female representatives of different nationalities will allow us to create a complete list of psychosocial problems experienced by pregnant refugee women.

Characteristics of health and psychosocial situation of pregnant refugees

Pregnant refugees are a group of women who face a number of difficulties and challenges due to their living situation. These problems include changing family dynamics, getting used to a new environment, fear for safety, lack of necessary support, poor nutrition, living in homelessness, financial considerations, multiple health problems, and inability to access a medical professional while fleeing (Daynes, 2016; Yücel et al., 2019). The aforementioned difficulties account for many of the problems of pregnant women, as listed below.

Traumatic experiences of refugee women from around the world

Among refugees arriving in California, almost one out of three women went through a traumatic event. Women from Africa and Latin America and the Caribbean experienced higher levels of trauma compared to other regions, including sexual assault, physical, and weapon assault. More than half of women and girls (56.6%) recounted experiences of persecution, with Southeast Asians reporting the highest levels. Among women of reproductive age, 7.0% were pregnant at the time of arrival in the US, 19.0% had a spontaneous abortion, and 8.6% reported having an induced abortion. One in three women fleeing from Africa reported female genital mutilation. Moreover, 80.0% of women reported needing language assistance at the time of their health assessment (Sudhinaraset et al., 2019). Within two months, from August 2017 to October 2017, hundreds of thousands of Rohingya refugees fled to Bangladesh through the Bangladesh–Myanmar border. In the Kutupalong and Nayapara refugee camps, Rohingya women reported frequent experiences of sexual

 DOI: 10.15557/PiPK.2023.0025

Authors, publication year	Number of respondents/ group of respondents	What was assessed/ country of origin	Evaluation methods	Main result
Ahmed et al., 2017	$N = 12$ Syrian refugee women	Maternal depression in Syrian refugee women recently moved to Canada: a preliminary study	Focus group discussion and structured questionnaire	Results showed that more than half of participants have depressive symptoms, half of them have anxiety symptoms, and one sixth have PTSD symptoms
Banks et al., 2016	$N = 6,158$ women tested	High hepatitis B seroprevalence and risk factors for infection in pregnant women on the Thailand–Myanmar border	Counselling and screening for hepatitis B	There were 523 (8.5%) rapid diagnostic tests (RDT) positive for hepatitis B surface antigen (HBsAg) among 6,158 women tested (Aug-2012 to April-2014). Of these 373 (96.9%) of 385 sent for confirmation were positive by ELISA i.e. RDT false positive rate of 3.1% (95% CI = 1.7–5.4). The overall confirmed HbsAg prevalence was 8.3% (511/6,158) (95% CI = 7.6–9.0). HBeAg prevalence was 32.7% (114/350) (95% CI = 27.9–37.7) of cases tested. Risk factors for HBsAg positivity included age >25 years (OR = 1.24, 95% CI = 1.03–1.49, $p = 0.021$) and Karen heritage (OR = 1.73, 95% CI = 1.39–2.15, $p < 0.01$)
Daynes, 2016	$N = 870$ individuals surveyed	The health impacts of the refugee crisis: a medical charity perspective	Systematic review	At every stage of the journey, migration is seriously impacting the health of refugees in many ways. In April, the Refugee Rights Data Project (RRDP) published its findings regarding police brutality in Calais
Fellmeth et al., 2018	$N = 11$ women with severe perinatal depression	Living with severe perinatal depression: a qualitative study of the experiences of labour migrant and refugee women on the Thai–Myanmar border	In-depth interviews	Eleven pregnant and post-partum women with severe perinatal depression took part. Predominant themes emerging from women's narratives included difficult relationships with partners, challenging life situations, mechanisms for coping with depression and impressions of mental health care
Getachew et al., 2018	$N = 320$ pregnant women in Shire refugee camps	Magnitude and factors associated with adherence to iron-folic acid supplementation among pregnant women in Eritrean refugee camps, northern Ethiopia	Interview administered structured questionnaire	Women who were having lower knowledge about anaemia (aOR = 0.23, 95% CI = 0.14–0.38) and not receiving information about importance of iron-folic acid supplementation (aOR = 0.43, 95% CI = 0.25–0.74) were negatively associated with adherence to iron and folic acid. Having four or more antenatal care visits (aOR = 2.83, 95% CI = 1.46–5.48) were positively significantly associated with adherence to iron-folic acid supplementation
Henry et al., 2020	$N = 12$ Arabic-speaking women from Iraq and Syria and with one Palestinian woman, who had lived in Syria	Access to health care for pregnant Arabic-speaking refugee women and mothers in Germany	Interviews with open-ended questions	Gaining access to obstetric care is problematic, as pre-migration experiences, conceptions of pregnancy, childbirth and obstetric care, limited health literacy, and missing language skills limit perceptions of healthcare needs, the seeking of healthcare providers, and the use of healthcare services
Joarder et al., 2020	$N = 33$ (12 articles, 21 organisational reports)	A record review on the health status of Rohingya refugees in Bangladesh	Systematic review	Major health problems prevailing among Rohingya refugees are unexplained fever, acute respiratory infection, and diarrhoea. Non-communicable diseases like hypertension, diabetes, and their risk factors are also highly prevalent among these people. More than half of the Rohingya refugees are women and many of them experience sexual abuse or exploitation. More than 50,000 Rohingya refugee women were pregnant, however, a significant portion of pregnant women did not have access to quality antenatal care. Mental health problems like PTSD, depression, and suicidal thoughts were also commonly prevailing in the Rohingya community
Kaufmann et al., 2022	$N = 120$ pregnant refugees and new mothers	Maternal mental healthcare needs of refugee women in a State Registration and Reception Centre in Germany: a descriptive study	Data analysis of clinical examination	In summary, 34 women (34%) met at least one of the defined cut-offs for PTSD, depression, anxiety, panic disorder, psychosocial well-being and substance abuse. $N = 18$ (18%) women met two, 29 (29%) three and 16 (16%) women met four relevant cut-off scores. Only three women did not meet any of the defined cut-off criteria. Two pregnant women were sent as emergency referrals following midwife consultation without prior screening; in another case, a woman was immediately referred despite inconspicuous screening results. Twenty participating women attended our walk-in clinic without prior screening: in 10 cases ($N = 10$, 8.4%), the screening questionnaire was unavailable in the women's first language, or they were unable to read or comprehend the questions sufficiently, and language professionals were unavailable. In the other 10 cases (8.4%), the women had attended the psychosocial walk-in clinic for pregnant refugees and new mothers spontaneously and without an appointment on their own accord

Tab. 1. Summary of published articles used in the systematic review

DOI: 10.15557/PiPK.2023.0025

Authors, publication year	Number of respondents/ group of respondents	What was assessed/ country of origin	Evaluation methods	Main result
Khan et al., 2016	$N = 819$	Neurodevelopmental outcomes in children born to climate refugee mothers in Bangladesh: experiences from Cyclone Aila	Cross-sectional study	There were significantly more landless families among climate refugees (CRs) compared to non-climate refugee (NCRs) ($p = 0.0001$; OR = 1.86, 95% CI = 1.37–2.51). The mean ± *SD* age at assessment of CR children was 8.52 ± 4.57 months compared to a mean age 9.09 ± 4.13 months of the NCR children ($p = 0.610$). Neurodevelopmental impairments were three times higher in the former (21.3%), compared to the latter (7.4%) group ($p = 0.0001$; OR = 3.83, 95% CI = 2.16–5.21). Specifically, expressive language ($p = 0.002$; OR = 2.86, 95% CI = 1.46–5.57) and gross motor functions ($p = 0.007$; OR = 2.27, 95% CI = 1.22–4.20) were the most significantly affected areas of impairment. The findings are of concern as in Bangladesh large populations are forced to leave their homes and become CRs annually
Korukcu et al., 2018	$N = 17$	Motherhood in the shade of migration: a qualitative study of the experience of Syrian refugee mothers living in Turkey	Descriptive, qualitative study	Five themes emerged of the experiences of a refugee woman during the process of transition to motherhood by bearing a child in a foreign country: difficulties during the pregnancy period, giving birth in a foreign country, problems of refugee mothers, milestones in the lives of refugee mothers, and influence of cultural beliefs of refugee mothers on baby care
Mishkin et al., 2022	$N = 158$ pregnant women	Factors associated with experiencing lifetime intimate partner violence among pregnant displaced women living in refugee camps in Erbil, Iraq	Interviews – 66-item survey	Of the 158 participants, the mean age was 27 years (*SD* ± 6.2), half (46%) were of poor economic status, and most (85%) did not work outside of the home. The mean gravida was 2.9 (*SD* ± 1.8), mean parity was 1.4 (*SD* ± 1.4), and mean age at first pregnancy was 21 (*SD* ± 4). Twenty-one (13%) reported having experienced any abuse and of those who reported abuse, five reported experiencing physical abuse. Further, 32 (21.8%) reported knowing a family member or friend who had experienced physical harm from their husband
Nilsen et al., 2018	$N = 1,287,270$ singleton pregnancies (163,508 to immigrant women)	Preeclampsia by maternal reasons for immigration: a population-based study	Record linkage between the Medical Birth Registry of Norway and Statistics Norway	Preeclampsia was reported in 3.5% of Norwegian women and 2.5% of immigrants. Compared with Norwegian women, the aOR for preeclampsia was lowest in labour immigrants (aOR = 0.55, 95% CI = 0.49–0.62), followed by family immigrants (aOR = 0.62, 95% CI = 0.59–0.65), immigrant students (aOR = 0.75, 95% CI = 0.65–0.86), refugees (aOR = 0.81, 95% CI = 0.75–0.88), and immigrants from other Nordic countries (aOR = 0.87, 95% CI = 0.80–0.94). Compared with Norwegian women, labour immigrants also had lower adjusted odds of preterm and very preterm preeclampsia, whereas refugees had increased adjusted odds of preterm and very preterm preeclampsia (<37 weeks: aOR = 1.18, 95% CI = 1.02–1.36, and <34 weeks: aOR = 1.41, 95% CI = 1.15–1.72)
Riggs et al., 2016	$N = 25$	'We are all scared for the baby': promoting access to dental services for refugee background women during pregnancy	Focus groups analysis	Four main themes were identified: perceptions of dental care during pregnancy, navigating dental services, maternal oral health literacy and potential solutions. Key findings included women and men's perception that dental treatment is unsafe during pregnancy, the lack of awareness amongst both the midwives and community members of the potential impact of poor maternal oral health and the overall lack of awareness and understanding of the 'priority of access' policy that entitles pregnant women to receive dental care cost-free
Saab et al., 2020	$N = 60$ (35 were Syrian refugee women)	Psychological distress among Syrian refugee women and a control group in an urban settlement in Beirut – a pilot study	GHQ-12	Sixty women were recruited, of whom 35 were Syrian refugees. The women were poor as determined by their literacy level. Ninety percent of the women were unemployed. History of acute and chronic illness including mental health, intake of medications and history of surgeries were comparable in both groups. There was no difference in the obstetrical and gynaecological history in both groups. Permanent residents in Sabra were more likely to get married at an age less than 18, and get pregnant at a younger age compared to Syrians ($p < 0.05$ for both). All women were psychologically distressed. The mean GHQ-12 score for the control group was 7.5 (*SD* 1.8). The mean GHQ-12 for the Syrian refugee women was 7.2 (*SD* 1.9). There was no statistically significant difference between both groups ($p = 0.522$). When asked about possible reason for stress 91.7% attributed it to poverty

Tab. 1. Summary of published articles used in the systematic review (cont.)

Authors, publication year	Number of respondents/ group of respondents	What was assessed/ country of origin	Evaluation methods	Main result
Salisbury et al., 2016	$N = 978$ women	Family planning knowledge, attitudes and practices in refugee and migrant pregnant and post-partum women on the Thailand–Myanmar border – a mixed methods study	Cross-sectional surveys and focus group discussions (FGDs)	Major positive findings were: >90% of women knew about contraceptives for birth spacing, >60% of women in the FGD and in-depth interview (IDI) reported use of family planning (FP) in the past and nearly all women knew where they could obtain FP supplies. Major gaps identified included: low uptake of long acting contraception (LAC), lack of awareness of emergency contraception (>90% of women), unreliable estimates of when child bearing years end, and misconceptions surrounding female sterilization. LAC uptake has increased particularly the intrauterine-device from 2013–2015
Şimşek et al., 2018	$N = 458$ married women (one person per house) selected of 961 married woman of 458 houses	A community-based survey on Syrian refugee women's health and its predictors in Şanliurfa, Turkey	Interviewer-administered questionnaire	The most frequent problems reported by most female Syrian refugees in this study were lack of nutrition and shelter and finding a job. Crowded living is an important risk factor for disease, and it dramatically increases the nutrition and housing problems. Community-based and culturally sensitive health education programs and genetic counselling should be implemented in line with the WHO recommendations to minimise the negative health consequences of consanguinity for child health
Singer et al., 2019	$N = 336$ HIV-infected refugee women	Impact of refugee influx on the epidemiology of late-presenting HIV-infected pregnant women and mother-to-child transmission: comparing a southern and northern medical centre in Germany	Retrospective analysis and comparison	In Munich, deliveries in HIV-infected pregnant women increased 1.6-fold from period A ($n = 50$) to B ($n = 79$) with late-presenting cases rising significantly from 2% (1/50) in period A to 13% (10/79) in B. In contrast, late-presenting cases in Hamburg decreased from 14% (14/100) in period A to 7% (7/107) in B, while the total number of HIV-infected women giving birth remained stable. From 2010 to 2015, one late-presenting pregnant woman transmitted HIV in Munich by presumed in utero mode of infection (case reviewed here), while no mother-to-child transmission occurred in Hamburg
Sturrock et al., 2021	$N =$ asylum-seeking woman	Antenatal care and perinatal outcomes of asylum-seeking women and their infants	Electronic patient records analysis	The median number of antenatal care episodes at the delivering hospital was significantly fewer amongst asylum-seeking women compared to controls (three vs. nine, $p < 0.0001$). The postnatal length of stay was significantly longer for infants of asylum-seeking women (median three vs. two days, $p = 0.002$). Thirty-seven percent of asylum-seeking women but none of the controls required assistance from social services
Sudhinaraset et al., 2019	$N = 12,277$ women and girls who completed the health assessment	The health profile of newly-arrived refugee women and girls and the role of region of origin: using a population-based dataset in California between 2013 and 2017	Data were collected pursuant to the Refugee Health Assessment Program (RHAP) in two different examination sessions	Almost one out of three women experienced a traumatic event. Women from Africa and Latin America and the Caribbean experienced higher levels of trauma compared to other regions, including sexual assault, physical, and weapon assault. More than half of women and girls (56.6%) reported experiences of persecution. Moreover, 80.0% of women reported needing language assistance
Tousaw et al., 2018	$N = 16$ women from Burma residing on both sides of the border who accessed misoprostol through the community-based distribution initiative	"It is just like having a period with back pain": exploring women's experiences with community-based distribution of misoprostol for early abortion on the Thailand–Burma border	In-depth, in-person interviews	Overall, women felt positively about their abortion experiences and the initiative. Previous abortion experiences and the recommendations of others shaped women's access. All participants, including those who remained pregnant after taking the misoprostol, would recommend the initiative to others
Yücel et al., 2019	$N = 8,016$ newborns	Newborn hearing screening results of refugees living in our city and the factors affecting the results	Newborn Hearing Screening results and risk factors analysis	786 Syrian and 7,230 Turkish newborns were included in this study; 53 (6.74%) infants referred in both ears, 26 (3.30%) infants in the one ear. There was a significant relationship between the presence of hearing loss and the history of intensive care unit admittance, presence and absence of low birth weight and neonatal icterus at Syrian newborns. In the same period, 20 (0.3%) Turkish infants referred bilaterally and 45 (0.6%) newborns unilaterally. There was a significant difference between Turkish and Syrian newborns in terms of very low and low birth weight and intensive care unit admittance

Tab. 1. Summary of published articles used in the systematic review (cont.)

DOI: 10.15557/PiPK.2023.0025

abuse such as rape, extortion of sexual favours, and unwanted sex. The women were aged 18 to 43 years (M = 26.9, standard deviation, SD = 5.5) and reported violence and abuse (72.7%), domestic violence (53.6%), traumatic loss of loved ones (46.4%), rape and forced prostitution (31.8%) (Joarder et al., 2020).

The migration process may have added a tremendous amount of stress and uncertainty to the lives of these women, increasing their vulnerability to depression, especially during childbirth. A German study of 120 pregnant refugee women found that 90% of patients had reported at least one traumatic event. The most common diagnosis was PTSD (36.1%), followed by adjustment disorder (27.5%), depressive disorder (17.5%), anxiety disorder (15.0%), somatoform disorder (13.3%), and dissociative disorder (5.8%). Most refugee women stated they felt burdened by their current living situation (77.5%) (Kaufmann et al., 2022). The risk factors for depression in refugee women include unfavourable socioeconomic conditions, low levels of social support, and experiences of conflict, exploitation, and interpersonal violence. Among Syrian refugees in Turkey, approximately 16% of women were pregnant, and 26.7% of them had not received any prenatal care; 47.7% had suffered a pregnancy loss; 50.8% reported symptoms of sexually transmitted infections (STIs). Early marriage (adjusted odds ratio, aOR = 2.2; 95% confidence interval, 95% CI = 1.4–3.5) and the number of desired children (aOR = 5.03; 95% CI = 3.2–7.9) were associated with not using contraception. Most (89.7%) women reported at least two mental health symptoms from the 12-Item General Health Questionnaire (GHQ-12); the lack of social support (aOR = 2.6; 95% CI = 1.3–5.3), language barrier (aOR = 2.3; 95% CI = 1.01–5.2) and B_{12} deficiency (aOR = 1.8; 95% CI = 1.01–3.4) were associated with such symptoms. The findings demonstrate the need for reproductive health and psychosocial services (Şimşek et al., 2018). If one asks an average Syrian woman why she is depressed, she will likely answer that she is alienated and away from her family (Ahmed et al., 2017). A gripping problem may be that – in a cultural sense - in many countries, childbearing is considered a fundamental aspect of womanhood: married couples are "blessed" with having children, and the idea of attributing pregnancy to depressive symptoms may seem inappropriate to women in this context (Fellmeth et al., 2018).

The process of becoming a mother can negatively affect women's health and well-being when it occurs simultaneously with fleeing a country, which requires adaptation to a changing environment (Korukcu et al., 2018). If a mother is stressed during pregnancy, her child is at significantly higher risk for emotional or cognitive problems, including increased risk for attention-deficit/hyperactivity disorder, anxiety, and language delay. A study comparing the neuromotor skills of pregnant refugees' children fleeing during the cyclone Aila disaster to the population of resident children hosting these pregnant refugees found that neurodevelopmental impairment (NDI) was three times more prevalent among refugee children (21.3%) compared to indigenous children (7.4%) (p = 0.0001; odds ratio, OR = 3.83, 95% CI = 2.16–5.21). In particular, expressive language (p = 0.002; OR = 2.86, 95% CI = 1.46–5.57) and gross motor skills (p = 0.007; OR = 2.27, 95% CI = 1.22–4.20) were the most affected areas of impairment (Khan et al., 2016).

War poses a particularly difficult challenge for pregnant refugees. Violence, chaos, and lack of adequate medical care increase the risk to the health and life of the mother and unborn child. Access to prenatal care, safe conditions, and humanitarian assistance are key to protecting such women during conflict. Traditional postpartum practices are often related to diet and nutrition, not being alone after giving birth, resting, getting help with household chores, and avoiding leaving the house for 40 days after giving birth (Korukcu et al., 2018); meanwhile, in some cases, women in war zones are discharged within two days after giving birth to avoid the danger of shelling and bombing. Women in the war zones in Syria have also opted to give birth by caesarean section for safety reasons (Henry et al., 2020).

Access to medical care in the home country and its impact on the course of pregnancy

Pregnant women fleeing conflicts face challenges in accessing prenatal care and hygienic living conditions (Daynes, 2016; Joarder et al., 2020). Data collected from 23,040 patients at Doctors of the World clinics in 25 cities across Europe show that more than half (54.2%) of pregnant women surveyed did not have access to prenatal care (Daynes, 2016). To access healthcare, a potential patient must first be able to identify a healthcare need and be aware of possible management options. This ability depends largely on the notions of health or illness, which are often culturally conditioned (Henry et al., 2020).

Prior to admission, none of the patients received any information about sexual and reproductive health during migration or adequate/complete prenatal care (Banks et al., 2016). One in five patients gave up seeking medical care or treatment due to difficulties including financial and language barriers, administrative problems, and lack of knowledge or understanding of their rights (Daynes, 2016; Henry et al., 2020; Korukcu et al., 2018). The prolonged length of postnatal hospital stay among infants of asylum-seeking mothers may reflect their mothers' reduced prenatal care (median of three days for refugee women vs. two days for female residents of the country, p = 0.002) (van Enter et al., 2017; Sturrock et al., 2021). In addition, inadequate prenatal care related to the situation of refugee women is associated with increased adjusted odds of preterm delivery and very preterm preeclampsia (<37 weeks: correlation 1.18 [1.02–1.36] and <34 weeks: correlation 1.41 [1.15–1.72]) compared to the local population (Norwegian study) (Korukcu et al., 2018). These findings point to the need to increase awareness of and access to antenatal and gynaecological care, and to improve the availability of midwives to provide these services in a culturally sensitive manner (Sturrock et al., 2021).

Health education and prevention

Health education and access to information on family planning and contraception are key to ensuring the health and safety of pregnant refugees. Young people have very limited knowledge about health issues, with only one in five correctly answering at least one question about reproductive health (Salisbury et al., 2016). Refugees and forcibly displaced women are extremely vulnerable to negative sexual and reproductive health outcomes, mainly due to a lack of knowledge about sexual and reproductive health issues such as menstruation, menopause, sexually transmitted diseases, and cervical screening (Joarder et al., 2020).

According to one study (Sturrock et al., 2021), more than half of displaced women (55.8%) were in related relationships, including marriages with their brothers' children. The practice of consanguineous marriage is a culturally preferred form of marriage in most Arab countries, as it is believed to strengthen family ties and promote family stability (Getachew et al., 2018). Local and culturally sensitive health education programs and genetic counselling should be implemented in accordance with the World Health Organization (WHO) recommendations to minimise the negative health consequences of parental consanguinity on the health of children (Sturrock et al., 2021).

Knowledge about pregnancy management and contraception is crucial for pregnant refugees. A large proportion of married adolescent girls do not have any access to existing family planning services because their husbands or family members do not consent to using them because of traditional beliefs and stigmatisation of sexual and reproductive health issues. Unmarried adolescent girls may have difficulty accessing contraception (Riggs et al., 2016; Tousaw et al., 2018). Women in low- and middle-income countries who experience unintended pregnancies are 25–39% less likely to use prenatal, delivery, and postpartum services (Mishkin et al., 2022).

An important but difficult topic to analyse thoroughly is HIV infection. Late HIV diagnosis was the main reason for pregnant women's late presentation to medical care in Munich (Singer et al., 2019). Many HIV-infected women made up false stories to keep their HIV status a secret. All interview participants came from countries where HIV is associated with major stigma. After giving birth, women suffered psychologically since bottle-feeding was a radical departure from their way of being and understanding their role as women (Saab et al., 2020).

Preventive healthcare for pregnant refugees is a significant challenge. Often, there is no access to basic medical care, vaccinations, and appropriate diagnostics, which increases the risk of complications for both the mother and child. Many sexual and reproductive health centres have a limited number of essential items such as blood tests, urinalysis kits, and tetanus vaccination (Joarder et al., 2020). The median number of prenatal ultrasounds at maternity hospitals among asylum-seeking women was one, compared to three in the control group (Sturrock et al., 2021). Among 2,598 pregnant women in Thailand, the Philippines and Malaysia, only 11% had heard or read about toxoplasmosis (van Enter et al., 2017). It is thus important to provide them with comprehensive healthcare, including regular check-ups, health education, and appropriate vaccinations, so as to minimise the risk of complications and ensure healthy pregnancy outcomes.

Supporting refugee women and offering them adequate medical care and health education can help improve their well-being and health, as well as reduce the risk of pregnancy complications and increase the chances of a healthy birth.

DISCUSSION

Refugee women must confront an array of issues, ranging from changes in family dynamics, getting used to a new environment, fear for their safety, lack of necessary support, and isolation from family members to coping with such extreme experiences as violence and abuse, or even molestation and forced prostitution (Ahmed et al., 2017; Daynes, 2016; Yücel et al., 2019). As a result, refugee women were found to have a high prevalence of PTSD, depression, sleep disorders, anxiety, and schizophrenia (Daynes, 2016; Joarder et al., 2020; Korukcu et al., 2018; Nilsen et al., 2018). Statistics of mental disorders in pregnant refugee women are much worse than in the general pregnant population, where, for example, 37% of women report symptoms of depression, while in pregnant refugee women the proportion reaches about 90%. (Iliadou et al., 2019; Kaufmann et al., 2022). In most cases, refugee women come from poor countries, where maternity care is not provided. Consequently, countries hosting refugee women need to place special emphasis on the health education of refugee women, and expect extended hospitalisation of patients after delivery (van Enter et al., 2017). It is also important to keep in mind the cultural differences between the country offering medical assistance and the refugee woman's country of origin, which necessitates education on preventive healthcare, increasing her awareness of the importance of vaccination for infectious diseases for both the mother and the foetus, and the importance of informing medical personnel about current and infections, such as HIV, which a large percentage of refugee women are afraid to admit (Saab et al., 2020).

The refugee women's places of residence, in turn, must offer access to quick and emergency medical assistance, and opportunities to take care of their pregnancy on their own, and undertake efforts to upgrade their skills, so that they will not be socially excluded in the future, and be ready for motherhood in a new country and a new society.

CONCLUSION

The results of the systematic review presented above illustrate the complexity and difficulty involved in the problem of effectively providing medical assistance to pregnant refugees. They also highlight that pregnant women fleeing their own country represent a very specific patient group. The healthcare strategy for pregnant refugee women should

DOI: 10.15557/PiPK.2023.0025

be comprehensive and based not only on obstetric care, but also on psychological assistance, health education, and assimilation into the rest of society. We believe that a modern and practical approach to providing a comprehensive care package to pregnant refugees will allow the country that helps them in crisis to gain new valuable citizens – both the mother and her newborn offspring.

Conflict of interest

The authors report no conflict of interest.

Author contributions

Original concept of study: JK. Collection, recording and/or compilation of data: JK. Analysis and interpretation of data: JK, AG, MK, NK, KK. Writing of manuscript: JK, AG, MK, NK, KK. Critical review of manuscript: JK, MS. Final approval of manuscript: JK, MS.

Piśmiennictwo

Ahmed A, Bowen A, Feng CX: Maternal depression in Syrian refugee women recently moved to Canada: a preliminary study. BMC Pregnancy Childbirth 2017; 17: 240.

van den Akker T, van Roosmalen J: Maternal mortality and severe morbidity in a migration perspective. Best Pract Res Clin Obstet Gynaecol 2016; 32: 26–38.

Banks T, Kang J, Watts I et al.: High hepatitis B seroprevalence and risk factors for infection in pregnant women on the Thailand-Myanmar border. J Infect Dev Ctries 2016; 10: 384–388.

Daynes L: The health impacts of the refugee crisis: a medical charity perspective. Clin Med (Lond) 2016; 16: 437–440.

Dopfer C, Vakilzadeh A, Happle C et al.: Pregnancy related health care needs in refugees – a current three center experience in Europe. Int J Environ Res Public Health 2018; 15: 1934.

van Enter BJD, Lau YL, Ling CL et al.: Seroprevalence of *Toxoplasma gondii* infection in refugee and migrant pregnant Women along the Thailand-Myanmar border. Am J Trop Med Hyg 2017; 97: 232–235.

Fellmeth G, Plugge EH, Nosten S et al.: Living with severe perinatal depression: a qualitative study of the experiences of labour migrant and refugee women on the Thai-Myanmar border. BMC Psychiatry 2018; 18: 229.

Fisher J, Cabral de Mello M, Patel V et al.: Prevalence and determinants of common perinatal mental disorders in women in low- and lower-middle-income countries: a systematic review. Bull World Health Organ 2012; 90: 139G–149G.

Getachew M, Abay M, Zelalem H et al.: Magnitude and factors associated with adherence to Iron-folic acid supplementation among pregnant women in Eritrean refugee camps, northern Ethiopia. BMC Pregnancy Childbirth 2018; 18: 83.

Gewalt SC, Berger S, Szecsenyi J et al.: "If you can, change this system" – pregnant asylum seekers' perceptions on social determinants and material circumstances affecting their health whilst living in state-provided accommodation in Germany – a prospective, qualitative case study. BMC Public Health 2019; 19: 287.

Henry J, Beruf C, Fischer T: Access to health care for pregnant Arabic-speaking refugee women and mothers in Germany. Qual Health Res 2020; 30: 437–447.

Howard LM, Molyneaux E, Dennis CL et al.: Non-psychotic mental disorders in the perinatal period. Lancet 2014; 384: 1775–1788.

Iliadou M, Papadakaki M, Sioti E et al.: Addressing mental health issues among migrant and refugee pregnant women: a call for action. Eur J Midwifery 2019; 3: 9.

Joarder T, Sutradhar I, Hasan MI et al.: A record review on the health status of Rohingya refugees in Bangladesh. Cureus 2020; 12: e9753.

Kaufmann C, Zehetmair C, Jahn R et al.: Maternal mental healthcare needs of refugee women in a State Registration and Reception Centre in Germany: a descriptive study. Health Soc Care Community 2022; 30: 1608–1617.

Khan NZ, Muslima H, Shilpi AB et al.: Neurodevelopmental outcomes in children born to climate refugee mothers in Bangladesh: experiences from Cyclone Aila. Mymensingh Med J 2016; 25: 746–750.

Korukcu O, Aydın R, Conway J et al.: Motherhood in the shade of migration: a qualitative study of the experience of Syrian refugee mothers living in Turkey. Nurs Health Sci 2018; 20: 46–53.

Mishkin KE, Ahmed HM, Maqsood SS: Factors associated with experiencing lifetime intimate partner violence among pregnant displaced women living in refugee camps in Erbil, Iraq. Glob Public Health 2022; 17: 3455–3464.

Narain K, Rackimuthu S, Essar MY et al.: Call for solidarity: the war may be over in Afghanistan but the health crises continue. J Glob Health 2022; 12: 03002.

Nilsen RM, Vik ES, Rasmussen SA et al.: Preeclampsia by maternal reasons for immigration: a population-based study. BMC Pregnancy Childbirth 2018; 18: 423.

Rethlefsen ML, Kirtley S, Waffenschmidt S et al.; PRISMA-S Group: PRISMA-S: an extension to the PRISMA Statement for Reporting Literature Searches in Systematic Reviews. Syst Rev 2021; 10: 39.

Riggs E, Yelland J, Shankumar R et al.: 'We are all scared for the baby': promoting access to dental services for refugee background women during pregnancy. BMC Pregnancy Childbirth 2016; 16: 12.

Saab BR, Stevenson K, Chahrouri M et al.: Psychological distress among Syrian refugee women and a control group in an urban settlement in Beirut – a pilot study. Psychiatr Q 2020; 91: 915–919.

Salisbury P, Hall L, Kulkus S et al.: Family planning knowledge, attitudes and practices in refugee and migrant pregnant and post-partum women on the Thailand-Myanmar border – a mixed methods study. Reprod Health 2016; 13: 94.

Shrestha-Ranjit J, Patterson E, Manias E et al.: Effectiveness of primary health care services in addressing mental health needs of minority refugee population in New Zealand. Issues Ment Health Nurs 2017; 38: 290–300.

Şimşek Z, Yentur Doni N, Gül Hilali N et al.: A community-based survey on Syrian refugee women's health and its predictors in Şanliurfa, Turkey. Women Health 2018; 58: 617–631.

Singer K, Schulze-Sturm U, Alba-Alejandre I et al.: Impact of refugee influx on the epidemiology of late-presenting HIV-infected pregnant women and mother-to-child transmission: comparing a southern and northern medical centre in Germany. Infection 2019; 47: 847–852.

Sturrock S, Williams E, Dassios T et al.: Antenatal care and perinatal outcomes of asylum seeking women and their infants. J Perinat Med 2021; 49: 619–623.

Sudhinaraset M, Cabanting N, Ramos M: The health profile of newly-arrived refugee women and girls and the role of region of origin: using a population-based dataset in California between 2013 and 2017. Int J Equity Health 2019; 18: 158.

Tousaw E, Moo SNHG, Arnott G et al.: "It is just like having a period with back pain": exploring women's experiences with community-based distribution of misoprostol for early abortion on the Thailand-Burma border. Contraception 2018; 97: 122–129.

UNHCR: Global Compact on Refugees Indicator Report 2021. Available from: https://www.unhcr.org/global-compact-refugees-indicator-report/.

Vallejo-Martín M, Sánchez Sancha A, Canto JM: Refugee women with a history of trauma: gender vulnerability in relation to post-traumatic stress disorder. Int J Environ Res Public Health 2021; 18: 4806.

Winn A, Hetherington E, Tough S: Caring for pregnant refugee women in a turbulent policy landscape: perspectives of health care professionals in Calgary, Alberta. Int J Equity Health 2018; 17: 91.

Yücel A, Alataş N, Yücel H et al.: Newborn hearing screening results of refugees living in our city and the factors affecting the results. Int J Pediatr Otorhinolaryngol 2019; 123: 187–190.