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Psycho-rehabilitation adaptation of pregnant women and mothers in the postpartum period who experienced traumatic events during the war

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Abstract

Background: Primary care and mental health services for pregnant and postpartum moms are facing increased difficulties as a result of the war in Ukraine.

Objective: To review and identify the available literature and conduct a study in order to determine psychological rehabilitation adaptation of pregnant women and mothers in the postpartum period who experienced traumatic events during the war in Ukraine

Methodology: In order to assess the effects of this condition, data was gathered. The existence of risk factors, such as a change in lifestyle associated with being a refugee and rehabilitation, is the most important factor associated with PTSD in pregnant and postpartum moms.

Results: Observational studies suggest that the symptoms of PTSD may be improved by coping self-efficacy therapies.

Conclusion: Further study is required to examine these components in greater detail and to suggest additional rehabilitation strategies.

Keywords: war in Ukraine; pregnant women, new mothers, post-traumatic stress disorder.

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Introduction

Those who survive the horrors of war, or the abuse have an increased likelihood of developing trauma-spectrum conditions such as post-traumatic stress disorder or PTSD. Particularly, traumatic stress can contribute to abnormalities in the neuroendocrine system as well as the immunological system, which increases the likelihood of developing physical disorders. It's possible that traumatic events can have an influence not only on psychological but also on physiological aspects of the following generation; in other words, acute stress may have transgenerational repercussions [1]. Since the commencement of Russia's war against Ukraine on February 24, 2022, the majority of immigrants are women and children from all throughout Ukraine. The exact number of pregnant and postpartum women who are war refugees is still unclear. According to the UN Population Fund, around 265,000 Ukrainian women were expecting babies at the point of the war and 80,000 pregnant were expected to give birth during the next three months. There were 293,400 babies born in Ukraine in 2020 [2]. The time from gestation to one year after giving birth is known as the perinatal period, and it is a delicate time. It is estimated that 1 in 5 women

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may have a perinatal mental illness [3, 4], with depression, emotional problems, and PTSD as the major diagnoses. The onset and recurring of psychological illnesses are high. The war trauma, along with the accompanying stress, worry, and instability, may have a variety of adverse reactions. Some of them may be long-lasting, for both women and their newborn children. According to the research conducted by Monk et al. [5], postpartum and pregnant women who are experiencing distress (which can be defined in regards to perceived anxiety, life situations, distress, and nervousness) have a greater likelihood of having an effect on the development of infant and fetal brain function. According to the research published by Marcos-Nájera et al. in 2020 and Monk et al. in 2019, maternal anxiety and high levels of maternal depression appear to raise the risk of probable mental illnesses even in children [5, 6]. In light of this justification, it is essential to increase the knowledge and comprehension of the factors that would contribute to meet the requirements of war refugee women in terms of their mental health throughout the pregnant and postpartum periods. The Riseup-PPD project is a Cost Action (18138) that was established by the Horizon 2020 Framework Program of the European Union. It was created with the intention of promoting guiding principles in the mental health of mothers during challenging circumstances. Despite the fact that Riseup-PDD was first designed for this reason, the program is still interested in exploring the needs and problems that women face during the per partum period, particularly in the face of unfavorable situations. This is the situation for Ukrainian women who are currently suffering as a direct result of the conflict in their country. As a consequence of this, Riseup-PDD has come together once more to provide their support to the aforementioned narrative review and to further the cause of promoting highly recommendable in perinatal psychological health [7].

Research Problem

Women who are pregnant and have been forced to leave their country exhibit a lot of reactive and personal worry. Responsive anxiety was 3.3 times greater and individual anxiety was 2.6 times higher in domestically displaced pregnant women compared to pregnant and postpartum moms who were not forcibly displaced [8]. According to the research, those who have experienced war are more likely to experience responsive and individual anxiety, depressive symptoms, postural instability, sleeplessness, and preterm labor [9]. Therefore this problem has been a sole focus of this project.

Research Focus

The purpose of this study is to provide an in-depth analysis of the most recent concerns and problems about prenatal psychological health in refugee women.

Research Aim

On the basis of this narrative review, the purpose of this project is to present a consensus regarding the main lines of action related to the assessment, intervention, and acclimatization of pregnant women and mothers in the postpartum period who suffered significant trauma during the war in Ukraine.

Research Questions

1. Which variables, both risk and preventive, have an effect on the mental health of pregnant women and new mothers during times of war?
2. What happens during labor and delivery, particularly, any potentially stressful incidents that may occur?
3. How are perinatal women's requirements for support and psychological rehabilitation services now being met in Ukraine and the host countries?

Research Methodology

General Background

The basic objectives of this narrative review are to firstly offer the author and the reader with a comprehensive overview of the topic and secondly to call attention to significant regions of study that have been conducted on the issue. Narrative reviews are useful tools for identifying issues with a study, as well as for helping to enhance and determine new areas for research. A narrative synthesis might give a first step in conducting an in-depth, methodical analysis of the data as well as organising it all in the appropriate mode. During the protocol stage, it was necessary to provide an explanation of the methods that were utilized in the process of carrying out the narrative synthesis. This is due to the fact that a narrative synthesis will be used to some degree, whether it be a significant or insignificant one, in an evaluation.

Instrument and Procedures

Methodical Approach to the Search engines

The literature search was conducted by using a variety of databases (for example, Medline, PubMed, and Google Scholar) with a combination of broad search terms, such as post-traumatic stress disorder OR prepartum ptsd

symptoms OR post birth severe anxiety disorder AND treatment OR psychological rehabilitation AND refugee mothers AND forced to relocate pregnant women AND psychological health of refugee such as new mothers/ pregnant women AND support and services for refugees.

Inclusion and Exclusion Criteria

Only studies that fulfilled all of the parameters indicates below were taken into consideration for inclusion: 1) an examination of the pregnant women who have escaped Ukraine as refugees; 2) studies of immigrants who were randomly assigned to receive treatment for PTSD; 3) whole content presented in English language; 4) the disclosure of these risk factors has an influence on the psychological health of pregnant and postpartum moms; 5) the requirements of perinatal women for assistance and psychological rehabilitation.

Data Analysis

The method of performing the analysis of the data began with the screening of the relevant details as the first stage. The next phase was the organization of the information that was collected into a table, which was then followed by the conclusion of the study. The articles that had been chosen for further consideration were then analysed one at a time in order to determine the overall concept that most successfully shows the relevance of the research subject.

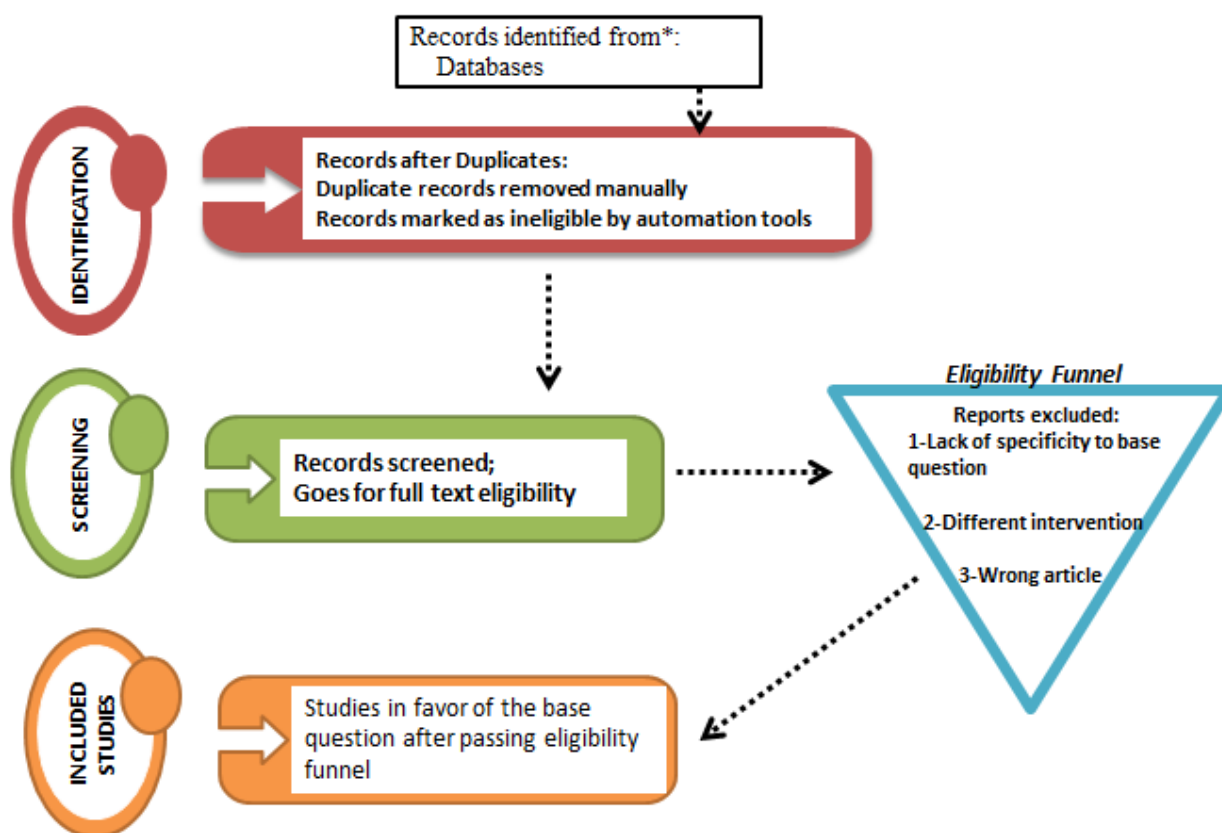


Figure 1. Graphical representation of extraction of information

Literature overview

The experience of war has a negative impact on maternal health due to stress levels and mental health. It is a factor that increases the likelihood of unfavourable outcomes during pregnancy and after delivery [10, 11]. There is a correlation between being exposed to war and having prematurely born babies and with a lower birth weight [12, 13]. Yet, direct exposure to the war is directly correlated to an increased risk of premature delivery, stillbirth, and early termination of pregnancy. During times of war, for instance, exposure to harmful substances such as chemicals, radioactivity, exhaust fumes, tainted water, or food can frequently lead to undesirable results [10]. In addition, the availability of health care facilities and medicines may be severely restricted in a conflict zone. It can make it exceedingly challenging for pregnant women to keep their follow-up medical visits. In addition, it may be difficult to locate a physician or midwife in the host nation and to keep up with the necessary number of medical appointments. In general, emigration and status as a refugee are additional risk factors for clinical depression during pregnancy and after delivery [14]. According to the findings of a comprehensive study, the incidence of postpartum depression

is significantly greater among migrant women, with rates that are 1.5 to 2 times higher compared to the overall population. Several earlier research [15, 16] also highlight additional major psychological issues such as post-traumatic stress disorders, depression, and psychosis as being more likely in immigrant and refugee women. The use of foreign methods, a lack of comprehension of available birthing alternatives, a lack of familiarity with technology, and difficulties communicating all contribute to the anxiety that refugee women experience during childbirth [17].

The prevalence of post-traumatic stress disorder (PTSD) was found to be 34.8% among pregnant women who had been forcibly displaced as a consequence of war in Ukraine [8], according to a study that was carried out in 2016 on a sample of pregnant women who had been displaced as a result of these operations. These women exhibited heightened indications of both responsive and personalized anxiety, as well as depressive symptoms, autonomic dysfunction, and sleeplessness [9]. According to the findings of a number of researchers [18], anxious and neurotic states are distinguished by high levels of both personal and reactive anxiety. The responsive anxiety is found to be 3.3 times more prevalent in pregnant women who've been internally displaced compared to pregnant women that weren't internally displaced, and individual anxiety is found to be 2.6 times more prevalent in pregnant women who were internally displaced compared to pregnant women that weren't forcibly displaced. For women who fell into this categorisation [9], the probability of having a pregnancy end prematurely and a greater specific weight of a variety of various somatic disorders were definitely factors that contributed to the difficult path that pregnancy and delivery took. Not just among communities who have been exposed to war may pregnancy and delivery provoke a recurrence of previously established mental health disorders or symptoms associated to previous traumatic experiences. For instance, Atzl et al. (2019) [19] found that early childhood trauma is connected with greater PTSD symptoms throughout pregnancy and after giving birth. This was found to be the case. Women who are refugees and have a history of experiencing trauma may already be carrying an additional weight. Existing mental health conditions are a risk factor for developing postpartum post-traumatic stress disorder (PTSD). According to the findings of a study carried out by van der Kolk (2014), persons who suffer from PTSD frequently do not seek therapy in order to shield themselves from upsetting memories [20]. According to the findings of other research [21], immigrant and refugee women have a difficult time obtaining the mental healthcare services they require. Although though everyone has access to medical care, these people frequently do not receive the treatment they require. Nevertheless, displaced Ukrainian war refugees face additional risk factors such as the loss of their previous way of life and their sense of safety, the separation from their partner or husband, the requirement to adapt to a new country and the possible difficulties that come along with it, the socioeconomic disadvantage, difficulties with communication due to language (for example, in the eastern part of Ukraine the Russian language was pervasive, whereas in the western part of Ukraine the most prevalent spoken language is Ukrainian), and fear regarding the future. The forced migration caused by the conflict may be distressing in many different ways, even for those who are not directly touched by it [7].

Research Results

When the inclusion criteria were taken into consideration, a total of 17 studies were found. Some studies shed light on the precarious situation that pregnant women find themselves in while they are migrants [22-26], while others emphasise the risk factors that are connected with it [11,27-33]. In the context of psychological rehabilitation and adaptation for pregnant women and new moms, a number of research have proposed the application of social cognitive theory in order to adjust the participants' behaviour in the event of a dispute [34-38]. (Table 1). But, in the future, there will need to be more research of this kind that are randomized and controlled to determine the requirements of pregnant women and mothers and to give the appropriate treatment for their emotional discomfort.

Table 1. The extracted information from screened studies

Highlight of the review	Extracted information from Analysis	References
As Vulnerable migrants	Every five women may acquire a mental problem during their pregnancy	[22, 23]
	Combat and relocation can damage mental health over time. Capacity for empathy and intuitive parenting can be weakened	[24, 25]
	28.2% are at an increased risk for postpartum depression	[26]
Risk factors of developing PSTD	Difficult pregnancy and delivery and bad birthing experiences	[11, 27]
	Armed warfare can also cause preterm birth and premature delivery	[11-13]
	Lack of medical professionals	[28]

	Adjustment to new lifestyle leads to elevated psychological distress.	[31-33]
	Perinatal consequences such as psychological health, maternal deaths, preterm delivery, and congenital anomalies are often more severe among migrant mothers	[29, 30]
Psychological rehabilitation adaptation	Social cognitive theory offers a helpful theoretical framework for analyzing psychological adaptability in people who have been exposed to traumatic experiences	[35]
	Subjective experience able to cope with exposure to possibly traumatic events	[36,37]
	Coping self-efficacy (CSE) works on individual behaviour	[36]
	Measurement of psychological adaptability for maintaining quality of life	[38]

Discussion

As Vulnerable migrants

Even in times when there is no active conflict, the perinatal period (which spans the time from pregnancy to the first year after the infant is delivered) is an especially precarious time. It is anticipated that one in every five women may acquire a mental problem during their pregnancy, which indicates that the risk of developing or experiencing a repeat of mental health issues during this time is rather significant [22, 23]. According to the research conducted by Chrzan-Dtoko et al., 2022, the most common diagnoses are anxiety, posttraumatic stress disorder (PTSD), and depression. The effects of conflict and migration may be very harmful, especially for new mothers and their young children. According to a number of studies, stressful events like as war or relocating to an unfamiliar location can have long-term harmful consequences on mental health, leading to an increased risk of depression as well as post-traumatic stress disorder (PTSD) [24, 25].

Pregnant and postpartum moms have been identified as particularly vulnerable members of the migrant community by mental health professionals who specialise in working with refugees. This is because pregnant women and recent mothers are "in a precarious situation in a foreign country, when the sense of inner homelessness can easily develop, and the capacity for empathy and intuitive parenting can be weakened," according to the aforementioned professionals. For instance, according to a study that was conducted in Syria during the conflict revealed that a significant proportion of mothers (28.2%) are at an increased risk for postpartum depression [26].

Risk factors of developing PTSD

Difficult Pregnancy

It's also crucial to understand that conflict might raise the likelihood of a difficult pregnancy and delivery and bad birthing experiences [11, 27]. Armed warfare can also cause preterm birth and premature delivery [11-13]. Yet, direct combat exposure raises the risk of preterm births, infant deaths, and miscarriages. For contrast, being exposed to a hazardous environment with pollution, radiation, exhaust fumes, or war-contaminated water or food might have harmful impacts [27]. Emerging studies have discovered that women who escaped from the war in Ukraine face significant modifications in their social position, including a loss of a choice of lifestyle, routine interaction with relatives and friends, economic difficulties, changes in perinatal healthcare coverage due to a lack of healthcare options, and having trouble finding a doctor or midwife who meets all their health needs [7]. These women also lack social support (friends, family) and are isolated as a result of their status as an immigrant (foreign refugee), which research has shown is a risk factor for numerous mental diseases during the postpartum period [28].

Adjustment in new lifestyle

The individual's ability to adjust to their new life within host nation is another aspect that might pose a threat to their mental health. According to Heslehurst et al. (2018), immigrants and undocumented immigrants in the host nation confront everyday challenges. Not understanding the native dialect and being inexperienced with the local way of life and health practices might cause additional burdens and hazards for mental and physical health. According to systematic reviews, perinatal consequences such as psychological health, maternal deaths, preterm

delivery, and congenital anomalies are often more severe among migrant mothers [29, 30]. According to the findings of a research conducted in Germany, 87.4% of the pre- and postpartum migrants experienced medical difficulties or high-risk conceptions [31-33].

Psychological rehabilitation adaptation

It is imperative that measures be taken in order to protect and monitor prenatal mental health in reaction to the current war in Ukraine [34]. The social cognitive theory offers a helpful theoretical framework for analysing psychological adaptability in people who have been exposed to traumatic experiences [35]. The idea of coping self-efficacy (CSE), that refers to an individuals' behavioural capacity to deal successfully with obstacles in life, is ingrained in this theoretical framework. CSE refers to an individual's perceived capacity for dealing efficiently with life's obstacles [36]. The term "trauma-related cognitive and social adaptation" is used in the context of traumatic stress to refer to a subjective experience that they are able to cope with exposure to possibly traumatic events. This involves the handling of the event itself, of post - traumatic stress living difficulties, and of distress diagnoses, as well as the ability to resume one's regular life [36, 37]. The hypothesis proposes that trauma-related CSE may be used as a measurement of psychological adaptability, especially an individual's capacity for self-regulation and goal-directing [36]. It has been demonstrated that exposure to trauma related CSE is associated with decreased incidence of PTSD symptoms both immediately after an emotional event [35] and for up to ten years after a disaster [34, 38].

An eye to future

Primary care and psychological hospitals across Europe are facing additional difficulties because of the war in Ukraine. Creating a thorough characterization of psychological distress in this target population should be the first essential step. The most common mental illnesses in the perinatal period are depression and anxiety, but PTSD is a significant issue connected to the effects of war and migration as well [39, 40, 4]. It is imperative to carry out further study on the occurrence and treatment of mental health issues during the perinatal period. It would be beneficial to undertake preventative strategies to help expectant moms, but it may also have a very favourable effect on the children [41]. According to Tuovinen et al. (2020), a rise in inflammatory markers in the pregnant woman is substantially correlated with maternal sadness and anxiety. There is a larger chance of neurodevelopmental delay in the progeny because of these more biomarkers. It is true that mothers and new-borns are interrelated and that taking good care of one necessitates taking care of the other, even if the fetal programming concept is still being researched and the results are conflicting [42].

Conclusions and Implications

According to the findings of this research:

- 1- Any fifth woman may experience a mental health issue while pregnant.
- 2- Over time, relocation and war can harm mental health.
- 3- Difficult labour and delivery, as well as negative childbirth experiences can leads to PTSD.
- 4- Preterm birth and premature delivery can both result from war is the risk factor of PTSD.
- 5- Another risk factor of PTSD is the absence of medical personnel.
- 6- Elevated psychological anguish results from lifestyle changes that need adjustment.
- 7- In migrant mothers, perinatal effects like mental health, maternal mortality, premature birth, and foetal defects are frequently more severe.
- 8- A useful theoretical framework for examining psychological adaptation in individuals who have been exposed to traumatic situations is provided by social cognitive theory.
- 9- The ability of the subject to handle experience to potential war.
- 10- CSE (coping self-efficacy) influences personal conduct.
- 11- Psychological adaptation is a needed assessment for preserving the life quality.

Declarations

Author contributions: All authors have sufficiently contributed to the study and agreed with the results and conclusions.

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Ethical statement: This study does not require IRB approval as it does not involve human subjects/data.

Declaration of interest: No conflict of interest is declared by authors.

Data sharing statement: Data supporting the findings and conclusions are available upon request from the corresponding author.

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