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The mental health of Ukrainian refugees: a narrative review

Emily Ellis[1], Cassie Hazell[1], Oliver Mason[1,*]

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Abstract

There are currently over 6.5 million Ukrainian refugees worldwide and this number is growing. Previous research has highlighted refugees' vulnerability and increased risk of developing mental health problems, and there has been a growing body of research focusing on Ukrainian refugees specifically since the Russo-Ukrainian war began in February 2022. The aim of this review is to explore the current literature on the mental health of Ukrainian refugees. A systematic search was carried out and identified 21 relevant papers that met inclusion criteria. Common themes were generated using narrative synthesis principles across the included papers. Four themes were identified: (1) General Psychological Distress, (2) Common Mental Health Problems, (3) PTSD and Trauma, and (4) Coping and Resilience. This review sheds light on the current mental health of Ukrainian refugees and highlights a number of risk and mitigating factors in relation to specific mental health conditions. Implications for future research, interventions, and support are discussed, and the strengths and limitations are considered.

Keywords: *Ukrainian, refugee, mental health*

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1. Introduction

In February 2022, Russia launched a full-scale invasion of Ukraine under the guise of a "special military operation" to "demilitarise and denazify Ukraine" [1]. Coinciding with the military invasion, numerous Ukrainian government websites, banking websites, and other essential websites were targeted by cyber-attacks, rendering them unusable. The Centre for Preventive Action states that since 2022, Ukraine has endured long-range missile strikes that target not only military assets but also public and civilian residential areas, including high-rise residential buildings and hospitals in many large cities [2]. Amnesty International [3] reports that due to the Russo-Ukrainian war, civilians have suffered from indiscriminate attacks and that there is growing evidence to suggest Russian military engaged in war crimes such as torture, executions, and sexual violence. As of February 2024, statistics show that approximately 22,000 civilians have been killed since February 2022, approximately 3 million people are internally displaced within Ukraine, and a further 6.5 million have left Ukraine for their own safety [2].

The UN Refugee Agency reports that many Ukrainian nationals have fled to neighboring countries for safety and to seek protection, due to the massive number of civilian casualties within Ukraine and the destruction of civilian infrastructure [4]. The Ukrainian government declared martial law following the full-scale invasion, which meant that most men between the ages of 18 and 60 years could not leave Ukraine and could potentially be called to join the military [5]. As a result of this, the majority of Ukrainian refugees are women (47%) and children (33%) [6]. It is estimated that over 6 million Ukrainian refugees have been registered in Europe alone, with a further 500,000 registering in countries outside of Europe [6]. At the time of writing, Poland and Germany have the highest recorded number of Ukrainian refugees, with over 1 million registered in each country [6]. The Czech Republic, Spain, and the United Kingdom have all recorded upward of 190,000 Ukrainian refugees each, with this number continuing to grow [6].

Research has shown that war can have long-lasting, transgenerational consequences for people's mental health [7]. War-related stressors can impact mental health in both short term and long term among internally displaced people, refugees, and asylum seekers [8]. Indeed, it has been shown that the prevalence of mental health disorders increases in civilians during war and armed conflict and continues to persist after the war or conflict has ceased [9]. Mental health disorders such as post-traumatic stress disorder (PTSD), depression, anxiety, and substance misuse have been shown to be the most common in civilians who have experienced war [7]. From a psychological perspective, the chronic traumatic stress (CTS) model may explain such high levels of these mental disorders among the refugee population and identifies symptoms of depression, anxiety, and PTSD as psychological outcomes of traumatic events [10]. The CTS model emphasizes on the cultural origins

[1]Department of Psychology, Faculty of Health and Medical Science, University of Surrey, Guildford, Surrey GU2 7XH, United Kingdom.
*email: o.mason@surrey.ac.uk

of refugees, pre- and post-migration stressors, and separates out post-migration challenges from daily living challenges that refugees may face [11]. Importantly, the CTS model accounts for both pre- and post-migration factors when formulating the mental health of refugees [11].

Refugees, and asylum seekers specifically, have also been shown to have increased vulnerability in developing mental health disorders such as PTSD, depression, and anxiety [12]. The mental health risk among this population is due to various factors, such as the impact of war pre-displacement, events experienced during displacement, stressors experienced while resettling, and the ongoing trauma from witnessing the enduring conflict [13]. War-specific traumas can increase the prevalence of mental health disorders among refugees [14, 15]. Refugees who witnessed bombings, killings, torture, and sexual violence have a higher risk of developing depression, anxiety, and PTSD than those who did not have such experiences [16–18]. This is important to keep in mind about the current Russo-Ukrainian war, where many Ukrainian refugees have been exposed to such atrocities during the current war [2, 3]. Due to experiencing war-specific traumas, Ukrainian refugees may be at increased risk of developing serious mental health disorders such as depression and PTSD.

Given the continuing Russo-Ukrainian war and a number of Ukrainian refugees in Europe, the UN Refugee Agency has recently drawn attention to increased challenges and worsening conditions for those residing in other countries, such as difficulties accessing housing and jobs, and inclusion difficulties when trying to access services in host countries [19]. They highlight that support for this population can be difficult, and even two years after the full-scale invasion, some Ukrainian refugees still have no access to their critical documentation [19]. To help support the mental health of Ukrainians, the International Federation of Red Cross and Red Crescent Societies (IFRC) has been working in collaboration with the European Health and Digital Executive Agency (HaDEA) to provide psychological first aid to Ukrainian nationals, both inside Ukraine and in other countries [20]. While this may prove beneficial initially, research has shown that the mental health impacts of war and armed conflict can be ongoing, long-lasting, and too severe to be addressed via first aid [7, 8]. Given that a large proportion of Ukrainian refugees will have experienced war-specific traumas, as mentioned above, the specific mental health needs of this population require further exploration to better inform countries and services on how to effectively support their mental health. Since the Russo-Ukrainian war began in 2022, there has been an increase in research exploring the mental health of Ukrainian refugees and there is a need to collate and synthesize this research. Given the small timeframe, this is a relatively new but growing literature base, and to the author's knowledge there has yet to be a review assessing the current state of the literature and synthesizing its findings.

Aims for this narrative review are as follows:

- To understand the prevalence of common mental health sequelae within the Ukrainian refugee population.
- To characterize the nature of these difficulties.
- To summarize what is known about the predictors of these difficulties.

2. Methods

2.1. Terminology

This paper will use the term "Russo-Ukrainian war", as this is the terminology used quite commonly in scientific journals.

The Russo-Ukrainian war has caused a massive influx of displaced Ukrainian nationals into neighboring countries, which has resulted in the European Union activating the Temporary Protection Directive [21]. This scheme allows externally displaced Ukrainian nationals to reside and gain work permits in EU countries until at least March 2025, without having to claim asylum through the usual government routes. Countries outside of the European Union, including Norway, Switzerland, and the United Kingdom, have introduced their own similar protection schemes [22–24]. In the United Kingdom, the Homes for Ukraine scheme grants displaced Ukrainian nationals temporary refugee status and the right to stay in the United Kingdom for up to three years [22]. For the purpose of this narrative review, the term "Ukrainian refugee" is used to define any person who has left their home country of Ukraine due to the war/Russian invasion and is currently living in another country.

2.2. Search strategy

This study employed a systematic search strategy to identify relevant literature across three databases: Scopus, PsycINFO, and Web of Science. The search was conducted in February 2024. The search terms "refugee*", "war", "Ukrain*", "mental health", "wellbeing", and "PTSD" were identified from the studies by Mihajlovic et al. [25], Rizzi et al. [26], and LekaviCiute [27]. A search string, comprising of Boolean operators and wildcard strategies, was developed using the keywords identified above, and search criteria were limited to titles and abstracts. The final search string was ("mental health" OR wellbeing OR PTSD) AND (Ukrain*) AND (Refugee* OR war). Published empirical research was searched for from February 2022 (the start of the invasion) until the date of searching.

2.3. Inclusion and exclusion criteria

Studies where the population was specifically Ukrainian refugees, and that explored mental health outcomes among this population, were included. Studies were excluded if they were published before the Russo-Ukrainian war began (February 2022), if the population was any other group outside of Ukrainian refugees, or if the paper was non-empirical, such as editorial or opinion reviews. Due to the language limitations of the researcher, only studies written in English were included.

2.4. Screening

Studies identified using the above search string were downloaded to a reference management system to begin the screening process. After the removal of duplicates, titles and abstracts were screened according to the inclusion and exclusion criteria provided above. Following this, the remaining full texts of the studies that could be accessed were screened.

2.5. Data extraction and analysis

Narrative synthesis principles [28] were used for data extraction as this method would allow the collation of results from all studies included in the review. In order to identify themes or

common areas of mental health covered, the included studies were read twice and their objectives, descriptive characteristics, analysis methods, and general findings and conclusions were extracted and organized into table format (**Table S1**, Supplementary materials). This information, along with the relationships between and within studies [28], was explored to highlight common or recurring themes within the included studies. Identified themes were discussed and revised in supervision where necessary. A quality screening was not deemed appropriate given the highly heterogeneous nature of the intended literature that was produced rapidly in the context of war and mass displacement. In addition, quality screenings would not usually be presented within a narrative review [29]. The potential impact of this decision could introduce bias into the results; however, given that this is an emerging literature base, and, as mentioned, current studies are highly heterogeneous, the use of a quality screening tool in this instance may result in reduced studies being included in this review, which could impact the results and overall picture of the state of Ukrainian refugees' mental health.

3. Results

The systematic search strategy across the three databases generated a total of 667 papers, which were downloaded to a reference management system. Once duplicates were removed (N = 252), 415 papers remained, and their titles and abstracts were reviewed to assess if they met the inclusion criteria. During this process, a further 379 papers were removed, which resulted in 36 remaining papers that met the inclusion criteria based on their title and abstract. A further 15 were excluded once the full papers were read, which left 21 papers that met the inclusion criteria for this review. **Figure 1** shows the study selection and exclusion flowchart.

Table S1, Supplementary materials shows the characteristics of the final 21 studies. As per the inclusion criteria, all studies were published from February 2022 onward. Seventeen studies used quantitative methods, two studies used qualitative methods, and two studies employed mixed methods. Both adult and child populations were included, with thirteen studies using an adult sample, five studies using solely child and adolescent samples, and three studies that included both adult and child populations in their participant samples. Eleven studies measured depression outcomes, ten studies measured anxiety outcomes, seven studies measured PTSD and trauma, and seven studies measured general distress and/or well-being. Four studies explored coping and resilience. There was a wide range of outcome measures used within the 21 studies as demonstrated in **Table S1**, Supplementary materials; however, the Patient Health Questionnaire (PHQ-9) and General Anxiety Disorder Questionnaire (GAD-7) were used more frequently than other outcome measures.

3.1. Narrative synthesis

The narrative synthesis highlighted specific areas of mental health and themes that were common within the included studies: (1) *General Psychological distress*, (2) *Common Mental Health Problems*, (3) *PTSD and Trauma*, and (4) *Coping and Resilience*. These were present for both adult and child Ukrainian refugees and will be discussed within the context of both.

3.1.1. General psychological distress

Seven studies spoke about "mental well-being", "stress", "psychological distress", and "psycho-emotional disturbances". These concepts were combined to give an overview of general psychological distress. Studies exploring these concepts used outcome measures including the World Health Organization—Five Well-being Scale (WHO-5), the Mental Health Inventory (MHI-5), the Kessler Psychological Distress Scale (K6), the Symptom Checklist (SCL-90-R), General Health Questionnaire (GHQ-12), Refugee Health Screener (RHS-15), and Subjective Unit of Distress Scale (SUDs).

Since the Russo-Ukrainian war began in February 2022, there has been a widespread increase in reported symptoms of stress among Ukrainians, particularly Ukrainian refugees [30]. In fact, in recent studies, the majority of Ukrainian refugees reported "severe" levels of stress highlighting the impact of war [30, 31]. Female Ukrainian refugees have been found to have poorer mental health outcomes than male refugees and tend to have higher levels of overall distress than males [32–34]. While the majority of research has focused on distress in adults, children and young people have also been shown to experience high levels of general psychological distress [35]. Adolescent Ukrainian refugees were found to experience ongoing distress and were burdened by specific worries relating to the ongoing war in their home country, their family and friends, and their personal future, suggesting the need for further psychological support [34].

There is a clear link between psychological distress, mental well-being, and quality of life. Ukrainian refugees have been shown to have lower mental well-being and higher levels of psychological distress than Ukrainians still living in Ukraine including those who have been internally displaced within Ukraine [31–33], which impacts their quality of life. The literature identified in this review suggests that this could be linked to levels of support: despite there being a number of official support schemes in European countries aimed at Ukrainian refugees, research has found that Ukrainians who did not leave their country received more support than those who did [31]. In fact, Ukrainian refugees were more likely to receive support from friends and family, whereas Ukrainians who remained in Ukraine were likely to receive more government-based support alongside friends and family support, which could impact on reported levels of distress and quality of life [31, 33]. Ukrainian refugees who were not aware of government financial support and opportunities were also found to have lower mental well-being and higher distress levels than refugees who were aware of this support [32]. This suggests that professional support could therefore potentially alleviate distress levels and improve mental well-being. This is particularly important, given that the ongoing distress that Ukrainian refugees experience, even after they have settled in a new country, and the level at which their basic needs are satisfied at can impact their emotional regulation abilities [36].

3.1.2. Common mental health problems

A large proportion of the studies explored common mental health problems such as depression and anxiety, and these problems appear connected, influencing each other [37]. There is current evidence that there is a positive linear relationship between depression and anxiety among Ukrainian refugees [37]. That is, someone experiencing anxiety is also likely to be experiencing symptoms of depression at a similar level. In addition, there appears to be a reciprocal association between anxiety and

insomnia within Ukrainian refugees, in which increased anxiety leads to increased insomnia and vice versa [31]. Overall, there appear to be elevated levels of common mental health problems among Ukrainian refugees, which will now be discussed.

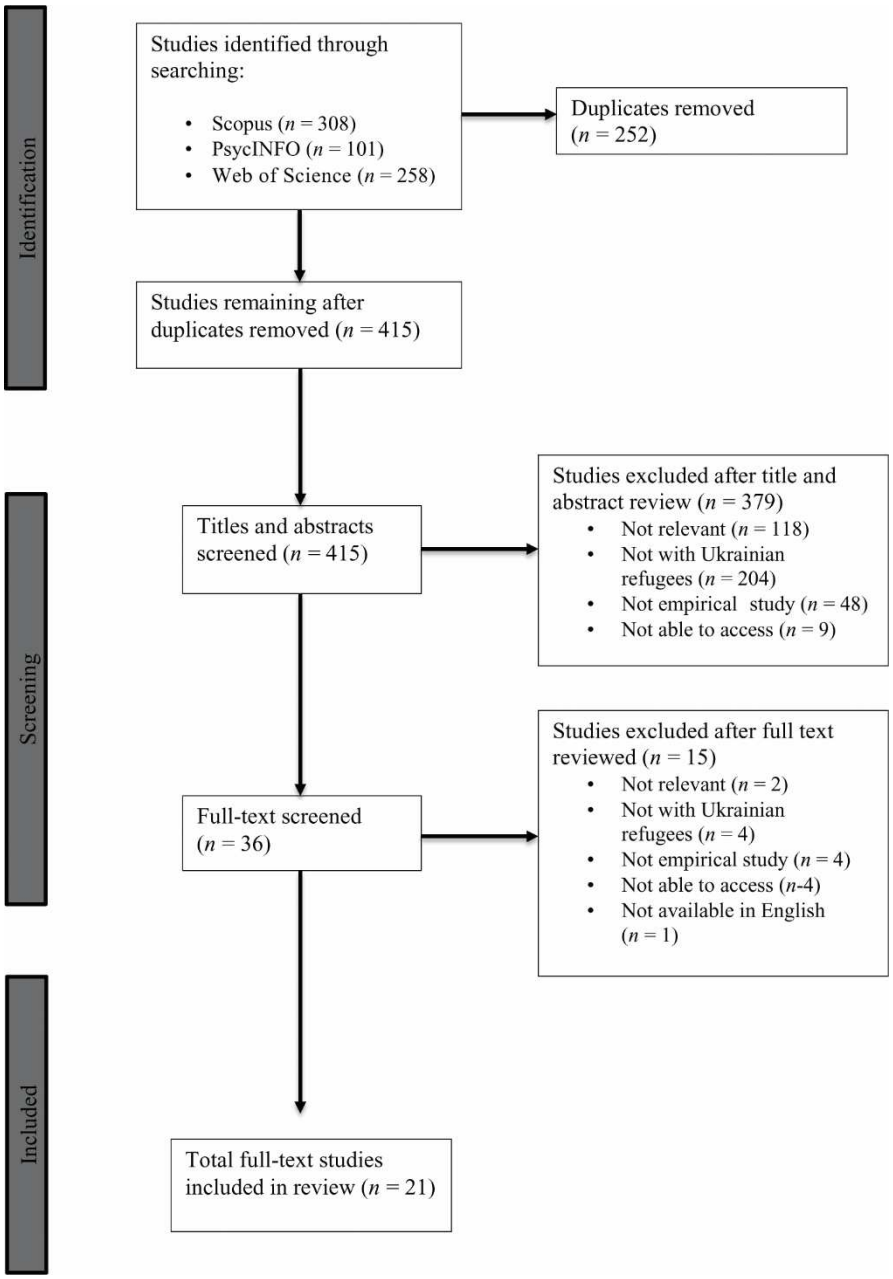

Figure 1 • Study selection and exclusion flow chart.

Depression: Eleven studies reported on depression among Ukrainian refugees. Interestingly, Barlattani et al. [38] have suggested that depressive symptoms can be overlooked among refugee populations in favor of trauma or PTSD symptoms but highlighted that symptoms of depression can manifest throughout the entire migration/refugee process. There is a high prevalence of depressive symptoms among the Ukrainian refugee population in both adults and children [32, 34]. Some studies report that as many as 70–85% of Ukrainian refugees experienced some level of depressive symptoms, ranging from mild to severe [31–33]. Levels of depressive symptoms appear to be somewhat consistent at around these levels irrespective of where Ukrainian refugees are displaced [31, 32, 35]. It is unclear whether there are any gender differences: some of the current literature has indicated that women may be more likely to experience higher depressive symptoms than men [33, 37]. Whereas other studies have suggested the opposite, and that men are more likely to experience higher levels of depressive symptoms [31]. While most studies found similar rates of depressive symptoms, there appears to be some variability between reported rates, which could be due to sampling differences. In addition to sample size, the majority of samples also have a significantly higher proportion of women than men, which means that some samples may not be representative of the wider Ukrainian refugee population. More worryingly, Ukrainian refugees appear not to recognize depressive symptoms in themselves, and a large proportion of them disagree that any of their current problems are signs of mental health issues [37]. Despite such high rates of symptoms of depression, perhaps because of a lack of self-identification, Ukrainian refugees do not often seek professional help either [37]. The reduced help-seeking has also been suggested to be because they are unaware of what support is available where they are [32, 37]. Interestingly, while adult Ukrainian refugees may struggle to identify they are not coping

and therefore not recognize the need for professional support, child Ukrainian refugees have been shown to value the importance of psychological support or counseling following their relocation and desire this [39]. Overall, the rates of depressive symptoms among Ukrainian refugees are unarguably high, and there are a number of different factors that appear to be associated with these high levels.

There is currently inconsistent evidence of the impact of age: some research has shown that those in the 18–34 years age bracket experience higher levels of depressive symptoms than other age groups [32, 37, 38]. However, a small number of studies have either found that age does not significantly influence rates of depressive symptoms [33, 40] or do not report results associated with age [30, 31, 41]. While it appears that being younger potentially increases symptoms of depression among adult Ukrainian refugees, this is not the case for child and adolescent Ukrainian refugees. In fact, the direction of the impact of age appears to be inverted among children and adolescents, with older children being more likely to experience more symptoms of depression than younger children [42].

Socio-economic factors seem to play a significant role in the rates of depression among Ukrainian refugees. Evidence has suggested that unemployed Ukrainian refugees are likely to experience more depressive symptoms or be diagnosed with depression than refugees who have secured employment, with rates as high as 88% for those unemployed, compared to 74% for Ukrainian refugees who are employed [32]. Simply being a refugee is a significant factor that can impact rates of depression. Some identified studies included Ukrainians still living in Ukraine, who were not classified as refugees, and compared outcomes between this population and that of Ukrainian refugees [31, 32]. In this instance, refugee status among Ukrainians increases the odds of depression [31] and Ukrainian refugees are 16% more likely to have depression than other non-displaced Ukrainians still living in Ukraine [32]. Events that happened during the war, before becoming a refugee, can also have a lasting effect on Ukrainian refugees. Having experienced the loss of a loved one due to the war and suffering from direct hostilities during the Russo-Ukrainian war significantly increased rates of depressive symptoms [31, 42]. Barlattani et al. [38] highlighted that there can also often be difficulties in one's migration journey and route to gaining refugee status, and this could impact one's overall health, which can continue to negatively impact them even once they have settled and been granted refugee status in a safe country. One's dissatisfaction with their overall health can also increase the odds of experiencing symptoms of depression [31]. All of these socio-economic factors can affect Ukrainian refugees' quality of life, which has also been shown to influence rates of depressive symptoms among Ukrainian refugees. However, it is important to remain cautious when interpreting this relationship at the current time. While quality of life has been shown to correlate with depression in Ukrainian refugees, the direction of this correlation remains unknown [33, 40].

Coping and resilience appear to be significant factors associated with the high rates of depressive symptoms among Ukrainian refugees [34, 42]. Low resilience was found to increase rates of depressive symptoms among both adult and child Ukrainian refugees [34, 40]. High personal resilience and, for children, high caregiver resilience among their parents were shown to mitigate some risk for symptoms of depression and were associated with lower reported levels of depressive symptoms [42]. Ukrainian refugees' experiences that have previously been discussed—pre-, during, and post-displacement—can also have an impact on which coping strategies they employ once resettled [42]. This is important as some coping strategies, such as emotional-orientated coping, have been shown to have a negative impact on mental health, specifically rates of depression [42].

Anxiety: Ukrainian refugees have a higher risk of anxiety than Ukrainians who were not displaced due to the war [31]. Current rates of anxiety in this population are high, with one study reporting that over 50% of Ukrainian refugees currently experience severe levels of anxiety [30]. The severity levels of anxiety among Ukrainian refugees have increased following the Russo-Ukrainian war [30]. In fact, anxiety appears to be more common than other mental health problems in this population, specifically among children [35]. While rates of anxiety have increased for all Ukrainians since the Russo-Ukrainian war began, a higher proportion of Ukrainian refugees experience anxiety than non-displaced Ukrainians, and the Ukrainian refugee population is more likely to suffer from severe or extremely severe levels of anxiety [31, 43]. Regarding gender differences, similar patterns to those seen with depression emerge for anxiety also. On the one hand, some studies have shown female Ukrainian refugees experience higher levels of anxiety symptoms [33, 34], while on the other hand, other studies found male Ukrainian refugees had higher symptoms of anxiety [31]. Unlike depression, there appears to be no association with age and anxiety levels [33, 34, 43]. Despite there being no association with age, children and adolescents were shown to have specific worries that increased their level of symptoms of anxiety [34]. Not surprisingly, the content of these worries centered around the war in Ukraine, and children and adolescents were most worried about their own future, the expansion of the war, and their friends' and relatives' safety [34]. These worries resulted in a number of safety behaviors, such as checking the news for updates on the war in Ukraine frequently [34]. While these safety behaviors may temporarily reduce anxiety levels in the short term, they maintain ongoing anxiety in the long term.

Similar socio-economic patterns evident for depression emerge for anxiety also. Unemployment following the Russo-Ukrainian war increases the risks of developing anxiety among Ukrainian refugees, especially if one was employed prior to the full-scale invasion [31]. Ukrainian refugees have a higher frequency and severity of anxiety [30]; however, having a stable visa status may in fact mitigate some of this risk of developing anxiety [43]. Those who have secured a visa, or who do not need to worry about potentially having to leave the country they have resettled in sometime in the future, are less likely to experience clinical levels of anxiety [43]. The experiences prior to resettling in a host country have been shown to predict Ukrainian refugees' general predisposition to experiencing anxiety [42]. For example, those who experienced hostilities in their place of residence and the loss of a close relative after the Russo-Ukrainian war began were more susceptible to experiencing anxiety once they had resettled in a host country. Again, this emphasizes that Ukrainian refugees' prior experiences of migration may have a long-term negative impact on their mental health. As with depression, these socio-economic factors all affect Ukrainian refugees' quality of life. Unsurprisingly, higher quality of life scores correlates with lower anxiety scores [33].

Types of coping strategies have similar impacts on anxiety as they do for depression. Problem-solving, task-orientated, and social

support-orientated coping strategies reduce levels of anxiety, whereas coping strategies that are more emotion-orientated can increase levels of anxiety [42]. Ukrainian refugees who have a higher ability to use problem- or task-orientated coping skills may be able to distract from the uncontrollable factors they are faced with due to their situation and gain a sense of control over other areas of their situation [42].

3.1.3. Trauma and PTSD

Exploration of PTSD and experiences of trauma among Ukrainian refugees appears less researched than other mental health problems within the current literature, with only seven studies reporting on PTSD and trauma. The majority of Ukrainian refugees have experienced trauma in some form [35, 43, 44]. It is unclear if there is a gender difference in rates of PTSD among Ukrainian refugees, but a small number of studies (n = 2) reported no significant difference between genders [35, 44]. The most commonly reported specific traumatic events experienced include the experience of war, being displaced, losing a close family member, and seeing a dead body in their city/close to where they lived [35, 43]. While there seems to be a consensus that this population will have experienced some level of traumatic events, there seem to be significant differences in the estimates of clinical levels of PTSD among Ukrainian refugees. There is conflicting evidence within the current literature about rates of PTSD among Ukrainian refugees with some estimates ranging between 45% and 73% [34, 45, 46] and some as low as 5% [35]. This variance could be due to the range of different outcome measures used in each study. Indeed, the review conducted by Lev-Ari et al. [35] was the only study that acknowledged they were using the Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5) criteria to determine if individuals in their sample potentially had a diagnosis of PTSD. Other studies were unclear on the full criteria they used to determine levels of PTSD among their sample.

All studies investigating trauma and PTSD were conducted proximal to the traumatic events, within a year following the beginning of the Russo-Ukrainian war, and a large proportion of studies (57%) conducted their data collection within four months of when the Russo-Ukrainian war began. This may, in part, explain some of the variance in reported rates of PTSD among Ukrainian refugees. On the one hand, the timing of the research could potentially lead to an overestimation of rates of PTSD in Ukrainian refugees due to participants either being in the early stages of resettlement or still completing their journey to a host country and experiencing a high level of stress [34]. On the other hand, the figures could be an underestimation due to the potential of Ukrainian refugees experiencing delayed onset of PTSD [35]. So, while there is no doubt that Ukrainian refugees have experienced high levels of trauma, the actual prevalence of PTSD among this population is unclear.

There are a number of variables that influence rates of PTSD among this population. Since February 2022, parts of Ukraine have been a constant war zone, with ongoing active military operations. War refugees who flee their home country due to active military operations have been shown to have higher levels of PTSD than economic refugees who flee from countries with no ongoing military operations [44]. A large number of Ukrainian refugees have also been forcibly displaced due to the war and ongoing military operations, which is another significant factor linked to higher levels of PTSD [44]. This could be a result of further stressors that are a direct consequence of being forcibly displaced, such as losing their homes/homes being destroyed, having to take on extra responsibilities such as caregiving if displaced with other family members, and having additional financial burdens due to job losses [44]. Alongside these burdens, the journeys of Ukrainian refugees can be filled with uncertainty and add to the traumatic burden, further increasing the risk of developing PTSD [38]. In addition, many Ukrainian refugees will have had to leave close relatives and friends behind in Ukraine, which can result in feelings of guilt that they themselves are now in a safe place, but their family and friends may still be in danger [45].

Age appears to be another factor that influences rates of PTSD in Ukrainian refugees. Young adult and adolescent Ukrainian refugees are more likely to experience higher levels of PTSD than older generations [45]. Curiously, child Ukrainian refugees have relatively low rates of PTSD, despite experiencing high levels of trauma [35]. However, it has been suggested that child Ukrainian refugees may express their trauma in different ways and present with more broad mental health issues and general distress, rather than exhibiting specific PTSD symptoms [34, 35]. Another explanation for the low rates of PTSD in child Ukrainian refugees may be due to the delayed onset of PSTD, which has been observed in adults, but more specifically in children following traumatic events [35]. This means that potentially, a child Ukrainian refugee could go on to develop PTSD 6 months or more, after the traumatic events. This is an important factor to note, as it could result in the impact of trauma being overlooked in this population if specific clinical cut-offs are not reached for PTSD and children are assessed early on in their refugee journey/resettlement.

Interestingly, integration appears to mitigate PTSD among Ukrainian refugees to some extent [46]. Those who have resettled in neighboring countries, such as Poland and Hungary, of Ukraine have been found to have more positive integrative attitudes, which have been shown to have a positive relationship with PTSD [46]. The positive relationship between PTSD and positive integrative attitudes may be influenced in part due to the similarities in language between Ukrainian and Polish people, enabling Ukrainian refugees to learn the language quickly and therefore helping them in finding jobs and housing [46]. Indeed, gaining command of the host country's language has been found to be a protective factor among Ukrainian refugees, with female Ukrainian refugees showing more PTSD symptoms if they do not speak their host country's language [45]. Prior to the full-scale Russian invasion, many Ukrainians were already living in neighboring Poland, and there are many similarities between Polish and Ukrainian customs, which suggests Ukrainian refugees may have found it easier to integrate into society and find Ukrainian communities within Poland to help them resettle [46].

3.1.4. Coping and resilience

Alongside mental health outcomes in Ukrainian refugees, four studies within the identified literature also focus on coping strategies and resilience as separate from the aforementioned mental health outcomes in this population. Coping and resilience are strongly linked with one another, with effective coping strategies shown to increase resilience in Ukrainian refugees [47]. Adopting more adaptive coping strategies such as communication, promoting relationships with family and friends and problem-focused strategies have been shown to link with increased resilience within this population [47, 48]. Whereas less-effective coping strategies,

such as using pain relievers and sedatives, and emotion-focused coping are linked with lower levels of resilience among Ukrainian refugees and overall worse mental health outcomes [40, 42]. This highlights a potential problem for the future with this population as currently, many Ukrainian refugees are employing emotion-focused coping strategies [40, 42]. While emotion-focused strategies have been shown to be beneficial in coping with traumatic events in the short term, they may in fact increase negative outcomes of mental health in the long term as they do not address the root causes of stress [42].

4. Discussion

The aims of this review are to estimate the rates of common mental health difficulties within Ukrainian refugees, characterize the nature of these difficulties, and summarize what is known about predictors of these difficulties. The estimated prevalence of mental health disorders by Ukrainian refugees is higher than the WHO prevalence estimates of mental disorders in conflict settings [49]. Ukrainian refugees were found to have high levels of common mental health problems, such as depression and anxiety. However, PTSD rates among this population remain unclear. In terms of coping, Ukrainian refugees appear to use a variety of strategies; however, many currently employ emotion-focused coping strategies, which can benefit in the short term, however, may in fact perpetuate mental health problems in the long term. There are numerous risk factors present for depression and anxiety, and importantly, integration appears linked to these mental health problems, with successful integration mitigating other risk factors and reducing mental health problems.

A national study conducted jointly with the World Health Organization (WHO) and the Ministry of Health in 2019 in Ukraine, before the Russo-Ukrainian war found approximately 80% and 60% of the population presented with a complete absence of depression and anxiety, respectively [50]. This review found that rates of both depression and anxiety have significantly increased since then following the beginning of the Russo-Ukrainian war, to the point where less than 5% of Ukrainian refugees now present with a complete absence of depression and/or anxiety symptoms [30]. This highlights the significant impact the war in Ukraine has had on the mental health of Ukrainian refugees and the ongoing mental health difficulties they experience, even after resettling. Indeed, it is important to note that the war is still ongoing and has a continuing impact on refugees. As mentioned previously, adolescent Ukrainian refugees have shown increased anxiety in relation to the ongoing war, specifically around family still living in Ukraine, and the expansion of the war, potentially resulting in World War III [34]. In addition, this review also found that adult Ukrainian refugees may experience ongoing guilt after leaving family members behind and anxiety about their safety [45]. This raises questions on how to best support the mental health of Ukrainian refugees, given that the war is ongoing and will continue to add extraordinary levels of stress and trauma to Ukrainian refugees. Interestingly, there appears to be a discrepancy between the published prevalence of mental health problems of Ukrainian refugees and the number of these problems encountered in the field. The WHO found that only 10% of Ukrainian refugees living in Poland reported that their emotions and stress were negatively impacting their daily functioning [51]. The reasons for this discrepancy are unclear but could relate to lower levels of mental health awareness found among Ukrainian refugees [37]. Irrespective of the reasons for this discrepancy, there is a clear need for published research by organizations working directly with Ukrainian refugees in the field to gain a clearer picture of the prevalence of mental health problems in this population.

While this review highlighted the pre-displacement risk factors for mental health problems, it also emphasized the importance of integration and resettlement post-displacement. Ukrainian refugees who found employment in their host country were found to experience less symptoms of depression [32], which highlights the importance of employment opportunities for Ukrainian refugees once resettled. A large proportion of Ukrainian refugees have high levels of education and qualifications, which has aided them in securing employment quickly once they arrive in a host country [52]. In addition, access to government-based support, including financial support, in a host country can increase mental well-being and decrease levels of overall distress among Ukrainian refugees [32, 33]. Within the United Kingdom, Ukrainian refugees can apply for financial support in the form of universal credit [53]; however, this can be a difficult and long process for some as many Ukrainian refugees have lost access to important documentation they may need for applications to such schemes [19]. Learning to speak the host country's language has also been shown to be a protective factor among Ukrainian refugees [45] and can potentially aid Ukrainian refugees in securing employment and housing [46]. All of these factors influence how well Ukrainian refugees integrate and resettle into a host country, with successful integration being shown to mitigate some mental health problems [46]. This is important given how much damage the war in Ukraine has caused [54], which could result in Ukrainian refugees having to stay in host countries for significantly longer than they initially planned and not being able to return home to Ukraine. In addition, another factor influencing mental health problems within Ukrainian refugee populations and related to integration is visa status [43]. Having a stable visa status and not having to worry about returning to Ukraine in the near future were shown to be less likely to develop anxiety [43]. This stresses the need for transparent and quick visa processes in host countries, to help manage and potentially reduce ongoing anxiety among this population.

4.1. Future research and implications for intervention and support

These findings together paint a complex picture of Ukrainian refugees' mental health. The body of literature focusing on Ukrainian refugees is growing quickly. Currently, much of the available literature focuses on broad or multiple mental health topics; however, there appears to be emerging literature that has begun to narrow its focus to specific areas, which previously literature identified.

This review has highlighted several gaps in the current literature that will now be discussed. First, a large proportion of the current literature is quantitative, and this review found only four papers that used either purely qualitative or mixed methods. Quantitative methodology can produce outcome data that are factual and can be generalized to large populations [55]. Given that the Russo-Ukrainian war began in 2022, it makes sense that the majority of the initial research utilized quantitative methodology, which provided a reliable overview of the mental health of Ukrainian refugees. As the body of literature has expanded since 2022, there is now a distinct lack of Ukrainian refugee voices and experiences within this. Future research utilizing qualitative

methodologies is recommended to provide rich and detailed information outside of statistical numbers and to ensure the experiences of Ukrainian refugees are heard.

Second, there is a question mark over how representative samples are within the current body of literature. While it is acknowledged that a larger proportion of Ukrainian refugees are women [19], some samples consist of an extremely high percentage of, if not all, female participants. Only one study [37] reported that their sample was representative of the Ukrainian refugee population within a specific host country. This raises questions about the generalizability of the current body of research outside of their sampling and highlights the need for more transparency and representative sampling within future research.

Third, research conducted in the initial aftermath of the Russo-Ukrainian war beginning is only reflective of that time point and cannot tell us about long-term mental health consequences. As described, refugee status is a significant factor contributing to various mental health difficulties, and it is possible that the impacts of this transition stage, to refugee status, have inflated mental health difficulties among this population in the first instance [34]. This illustrates the need for longitudinal studies with this population, to provide a more in-depth understanding of Ukrainian refugees' mental health over time and determine how best to support them when resettling. Longitudinal studies will also explore the long-term impacts of being a refugee and investigate potential intergenerational impacts with time.

As most of the current body of literature is relatively recent and focused on exploring the current state of Ukrainian refugees' mental health, there appears to be a lack of research exploring potential interventions and how best to support this population. This raises the question of how mental health services can support Ukrainian refugees. As we have found, the mental health of this population has been severely impacted by the war in Ukraine and there is a clear need to address this. Future research developing, implementing, and evaluating the effectiveness of interventions is desperately needed to enable countries to adequately support Ukrainian refugees. Based on the results of this review, depression and anxiety are high among this population. The National Institute of Health and Care Excellence (NICE) recommends self-guided help, cognitive behavioral therapy (CBT), behavioral activation, and counseling for those displaying symptoms of depression [56] and CBT and applied relaxation for anxiety [57]. Further research exploring the efficacy of these interventions within the Ukrainian population may help identify which approach has the best results.

This review also demonstrated that mental health awareness and help-seeking among Ukrainian refugees are lacking [37] and suggested this could be a result of not knowing what help is available in their host country or due to low mental health literacy [32]. This raises questions on how to improve mental health awareness and knowledge of local services available to Ukrainian refugees. Interestingly, a recent systematic review found that social-capital-based interventions are effective in reducing various mental health difficulties in the refugee population and can provide information about local resources to refugees [58], which highlights a potential opportunity for more community-based psychology approaches when supporting Ukrainian refugees in gaining awareness of their mental health.

Lastly, as mentioned, the prevalence of mental health disorders in Ukrainian refugees appears to be higher than the WHO prevalence estimates of mental disorders in conflict settings [49]. Within the parameters of this study, it is difficult to ascertain why this might be; however, some of the risk factors discussed may have a continuing influence on current estimates, for example, the continuing impact from the ongoing war, post-immigration and integration difficulties, and lower levels of mental health awareness among Ukrainian refugees. The timing of studies may also have influenced this discrepancy, with studies being rapidly produced in the early stages of the war, in order to attempt to identify and address the needs of this population. Nevertheless, further research is needed to clarify this discrepancy and determine the potential reasons for it.

4.2. Strengths and limitations

The identified studies in this review have numerous strengths and limitations. Sample sizes between studies differed drastically, with some reporting a large sample size of over 1,000 participants [32, 37] whereas others reported less than 100 participants [34, 35, 38], and only one study reported a power calculation as to the desired sample size [44]. As mentioned, this level of variance in sample size raises questions about the generalizability of the research findings to the whole Ukrainian refugee population. Studies reported outcomes as suggested diagnoses, self-reported symptoms, and abnormal scores on outcome measures. The majority of studies spoke of anxiety and depression as putative diagnoses and for some it was unclear if the authors were considering depression and anxiety in their samples as established diagnoses. In this respect, the narrative analysis of this review also addresses depression and anxiety as putative diagnoses, which could have influenced the results and potentially led to an overestimation of rates, and therefore is a current limitation of this review. Future studies could additionally use these outcome measures to screen for possible diagnoses that are then confirmed according to either the DSM-5 [59] or the International Statistical Classification of Diseases and Related Health Problems (ICD-10) [60]. It is also unclear if studies used outcome measures that had been validated for Ukrainians. Only one study [38] explicitly reported that the batteries of outcome measures they used were validated for use with people whose first language is Ukrainian. This is problematic in that we cannot be clear that the outcome measures used in other studies were valid and that they provided accurate results. Third, all the current literature employs a cross-sectional design, which has both strengths and limitations. In terms of strengths, a cross-sectional methodology can be used when researchers want to explore multiple variables in a short amount of time [61], which is beneficial given the current context and the need to identify the mental health impacts of the Russo-Ukrainian war on Ukrainian refugees. However, it is beyond the scope of a cross-sectional design to explore changes over time or address causality, which highlights a need for research employing longitudinal designs in the future [61]. Lastly, it is pertinent to note that much of the current literature focusing on adult Ukrainian refugees shows a gender bias toward female participants within their sampling. This may be explained by the larger proportion of female Ukrainian refugees, due to fighting-age males being conscripted and restrictions placed on them with regard to traveling outside of Ukraine [5]. It is essential to keep this in mind when interpreting gender differences within the current literature due to how unbalanced the samples are. With regard to child and adolescent Ukrainian refugees, there appears to be more of an even sampling between

male and female participants, which could be due to male participants being too young to be affected by martial law, and conscription duties.

It is also important to note the strengths and limitations of a narrative review methodology. In this instance, the use of a narrative review methodology has allowed the synthesis of the disparate recent literature. Given the broad nature of our research aims, the use of narrative synthesis has been advantageous in telling the overall story of Ukrainian refugees' mental health [28], identifying the current state of the literature, and highlighting areas of interest that require further research. However, a narrative review methodology is not without its limitations and has received criticism for not being systematic enough [62]. In addition, previous narrative reviews are rarely transparent in disclosing their methods and search strategies to the readers, which makes it difficult to reproduce the search for future literature [62]. In order to address this limitation, this review employed a systematic search strategy and has been transparent in reporting this. Alongside a systematic search strategy, this review also included explicit inclusion and exclusion criteria for identified papers in a bid to reduce bias within the search. Despite these measures, it remains important to acknowledge the subjectivity of the extracted data and how this information was synthesized. It is also important to note that the inclusion of studies published in English and the exclusion of all non-English studies will inevitably lead to bias. Due to the language abilities of the authors, this was unavoidable. While the conclusions from this review provide an initial broad overview of the current literature and identify further areas of research, it is important to view them through a critical lens due to the limitations discussed above.

5. Conclusions

To conclude, the overall mental health of Ukrainian refugees has been severely impacted by the Russo-Ukrainian war and the full-scale Russian invasion. Ukrainian refugees are at an increased risk of developing numerous mental health issues, which impact their quality of life. Specifically, Ukrainian refugees have higher than expected levels of depression and high levels of anxiety. In addition, while they have experienced various traumatic events, not just related to war, but also in their journey as a refugee, levels of PTSD among Ukrainian refugees remain unclear at the current time and need further exploration. Given that the war is ongoing, Ukrainian refugees appear to be using more emotion-focused coping skills to manage resettlement and their mental health, which may be beneficial in the short term but has negative drawbacks in the long term. Concerningly, Ukrainian refugees appear to not recognize symptoms of mental health and may not actively seek professional help or support.

Abbreviations

AAS: Acculturation Attitudes Scale

AUDIT: Alcohol Use Disorders Identification Test

BAI: Beck Anxiety Inventory

BDI: Beck Depression Inventory

BRS: Brief Resilience Scale

CATS: Child and Adolescent Trauma Screen

CBCL: Child Behavior Checklist

CERQ: Cognitive Emotion Regulation Questionnaire

CDI-2: Children's Depression Inventory

CYRM-R: Child and Youth Resilience Measure-Revised

DASS-21: Depression and Anxiety Stress Scale

DERS-18: Difficulties in Emotional Regulation Scale

DSM-5: Diagnostic and Statistical Manual of Mental Disorders, fifth edition

EUROHIS-QOL: European Health Interview Survey-Quality of Life

FFQ: Food Frequency Questionnaire

FWS: Fear of War Scale

GAD-7: General Anxiety Disorder Questionnaire

GHQ-12: General Health Questionnaire

IES: Impacts of Events Scale

ISI: Insomnia Severity Index

ITQ: International Trauma Questionnaire

JSR: Coping Questionnaire

K6: the Kessler Psychological Distress Scale

LEC-5: Life Events Checklist

MHI-5: the Mental Health Inventory

PCL-5: Post-Traumatic Stress Disorder Checklist

PC-PTSD-5: Primary Care PTSD Screen

PHQ-9 and PHQ-4: Patient Health Questionnaire

PRQ-2000: Personal Resource Questionnaire

PTSD-RI-5: Post-Traumatic Stress Disorder Reaction Index

RHS-15: Refugee Health Screener

SBM: Short Burnout Measure

SCL-90-R: the Symptom Checklist

SRH: Self-Reported Health Questionnaire

STAI-C: State-Trait Anxiety Inventory—Child Version

SUDs: Subjective Unit of Distress Scale

VAS: Art Therapy Satisfaction Measure

WHO-5: World Health Organization, Five Wellbeing Scale

WHODAS-12: WHO Disability Assessment

YCPC: Young Child PTSD Checklist

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The authors declare no conflict of interest.

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References

1. Walker N. Conflict in Ukraine: a timeline (current conflict, 2022 – present); 2023 Oct. 18 [cited 2024 Feb 5]. Available from: https://commonslibrary.parliament.uk/research-briefings/cbp-9847/
2. Centre for Preventive Action. War in Ukraine; 2024 March 5 [cited 2024 Feb 5]. Available from: https://www.cfr.org/global-conflict-tracker/conflict/conflict-ukraine
3. Amnesty International. Ukraine 2022; 2022 [cited 2024 Feb 5]. Available from: https://www.amnesty.org/en/location/europe-and-central-asia/ukraine/report-ukraine/
4. UNHCR. Ukraine situation; 2024 [cited 2024 Feb 7]. Available from: https://reporting.unhcr.org/operational/situations/ukraine-situation
5. Piccoli GB, Brunori G, Gesualdo L, Kalantar-Zadeh K. The impact of the Russian–Ukrainian war for people with chronic diseases. Nat Rev Nephrol. 2022;18(7):411–2. https://doi.org/10.1038/s41581-022-00574-z
6. UNHCR. Ukraine Refugee Situation. 2024 [cited 2024 Feb 7]. Available from: https://data.unhcr.org/en/situations/ukraine
7. Rozanov V, Frančišković T, Marinić I, Macarenco MM, Letica-Crepulja M, Mužinić L, et al. Mental health consequences of war conflicts. In: Javed A, Fountoulakis KN, editors. Advances in psychiatry. Cham: Springer International Publishing; 2019. p. 281–304. https://doi.org/10.1007/978-3-319-70554-5_17
8. Carpiniello B. The mental health costs of armed conflicts—a review of systematic reviews conducted on refugees, asylum-seekers and people living in war zones. Int J Environ Res Public Health. 2023;20(4):2840. https://doi.org/10.3390/ijerph20042840
9. Kanter E. The impact of war on mental health. In: Levy BS, Sidel VW, editors. War and public health. Oxford, New York: Oxford University Press; 2008. p. 51–68.
10. Fondacaro K, Mazzulla E. The chronic traumatic stress framework: a conceptual model to guide empirical investigation of comprehensive treatments for refugees and survivors of torture. Torture. 2018;28(1):58–69. https://doi.org/10.7146/torture.v28i1.105477
11. Idemudia E, Boehnke K. Theoretical explanations of migrations, mental health, wellbeing and posttraumatic stress disorder. In: Idemudia E, Boehnke, K, editors. Psychosocial experiences of African migrants in six European countries. Cham: Springer; 2020. p. 51–88.
12. Hameed S, Sadiq A, Din AU. The increased vulnerability of refugee population to mental health disorders. Kans J Med. 2018;11(1):20. doi: 10.17161/kjm.v11i1.8680
13. Davidson GR, Murray KE, Schweitzer R. Review of refugee mental health and wellbeing: Australian perspectives. Aust Psychol. 2008;43(3):160–74. https://doi.org/10.1080/00050060802163041
14. Bogic M, Njoku A, Priebe S. Long-term mental health of war-refugees: a systematic literature review. BMC Int Health Hum Rights. 2015;15:1–41. https://doi.org/10.1186/s12914-015-0064-9
15. Shannon PJ, Vinson GA, Wieling E, Cook T, Letts J. Torture, war trauma, and mental health symptoms of newly arrived

Karen refugees. J Loss Trauma. 2015;20(6):577–90. https://doi.org/10.1080/15325024.2014.965971

16. Steel Z, Chey T, Silove D, Marnane C, Bryant RA, Van Ommeren M. Association of torture and other potentially traumatic events with mental health outcomes among populations exposed to mass conflict and displacement: a systematic review and meta-analysis. JAMA. 2009; 302(5):537–49. https://doi.org/10.1001/jama.2009.1132
17. Singhal S. Early life shocks and mental health: the long-term effect of war in Vietnam. J Dev Econ. 2019;141:102244. https://doi.org/10.1016/j.jdeveco.2018.06.002
18. Betancourt TS, Keegan K, Farrar J, Brennan RT. The intergenerational impact of war on mental health and psychosocial wellbeing: lessons from the longitudinal study of war-affected youth in Sierra Leone. Confl Health. 2020;14: 1–8. https://doi.org/10.1186/s13031-020-00308-7
19. UNHCR. Ukraine Refugee Situation. 2024 [cited 2024 Feb 7]. Available from: https://data.unhcr.org/en/situations/ukraine
20. European Health and Digital Executive Agency (HaDEA). EU4Health projects improving the mental health of Ukrainian refugees; 2023 May 22 [cited 2024 Feb 7]. Available from: https://hadea.ec.europa.eu/news/eu4health-projects-improving-mental-health-and-wellbeing-ukrainian-refugees-2023-05-22_en#:~:text=Through%20a%20contribution%20agreement%20under,Ukrainian%20refugees%20in%20impacted%20countries
21. Council of the European Union. Council Directive 2001/55/EC of 20 July 2001 on minimum standards for giving temporary protection in the event of a mass influx of displaced persons and on measures promoting a balance of efforts between Member States in receiving such persons and bearing the consequences thereof; 2001. Available from: https://eur-lex.europa.eu/eli/dir/2001/55/oj
22. Department for Levelling Up, Housing and Communities. Homes for Ukraine. Gov.Uk; 2022. Available from: https://apply-to-offer-homes-for-ukraine.service.gov.uk/
23. State Secretary for Immigration. Information for refugees from Ukraine; 2023 Dec 28 [cited 2024 Feb 14]. Available from: https://www.sem.admin.ch/sem/en/home/asyl/ukraine.html
24. The Norwegian Directive of Immigration (UDI). Protection for those who have fled Ukraine; 2022. Available from: https://www.udi.no/en/information-ukraine-and-russia/situation-in-ukraine/stay-in-norway/protection-asylum-in-norway/
25. Mihajlovic A, Segalite L, Lawler A. Mental health disparities of Ukrainian children exposed to war: a narrative review. World Soc Psychiatry. 2022;4(2):63–8. doi: 10.4103/wsp.wsp_20_22
26. Rizzi D, Ciuffo G, Landoni M, Mangiagalli M, Ionio C. Psychological and environmental factors influencing resilience among Ukrainian refugees and internally displaced persons: a systematic review of coping strategies and risk and protective factors. Front Psychol. 2023;14:1–20. https://doi.org/10.3389/fpsyg.2023.1266125
27. Lekaviciute, G. Mental health of refugees: a literature review. Biol Psychiatry Psychopharmacol. 2023;25(1):9–13. Available from: http://biological-psychiatry.eu/wp-content/uploads/2023/08/JBPP_v25iss1.pdf
28. Popay J, Roberts H, Sowden A, Petticrew M, Arai L, Rodgers M, et al. Developing guidance on the conduct of narrative synthesis in systematic reviews. J Epidemiol Community Health. 2006;59(Suppl 1):A7. Available from: http://jech.bmj.com/content/vol59/suppl_1/
29. Siddharth S, Gayatri B. Writing and appraising narrative reviews. J Clin Sci Res. 2021;10(3):169–72. https://doi.org/10.4103/jcsr.jcsr_1_21
30. Lytvynenko O, König LM. Investigation of Ukrainian refugees' eating behavior, food intake, and psychological distress: study protocol and baseline data. Appl Psychol Health Well-Being. 2023. https://doi.org/10.1111/aphw.12477
31. Boiko DI, Shyrai PO, Mats OV, Karpik ZI, Rahman MH, Khan AA, et al. Mental health and sleep disturbances among Ukrainian refugees in the context of Russian-Ukrainian war: a preliminary result from online-survey. Sleep Med. 2024; 113:342–8. https://doi.org/10.1016/j.sleep.2023.12.004
32. Asanov AM, Asanov I, Buenstorf G. Mental health and stress level of Ukrainians seeking psychological help online. Heliyon. 2023;9(11):E21933. https://doi.org/10.1101/2022.08.19.22278660
33. Buchcik J, Kovach V, Adedeji A. Mental health outcomes and quality of life of Ukrainian refugees in Germany. Health Qual Life Outcomes. 2023;21(1):23. https://doi.org/10.1186/s12955-023-02101-5
34. Catani C, Wittmann J, Schmidt TL, Wilker S, Neldner S, Neuner F. School-based mental health screenings with Ukrainian adolescent refugees in Germany: results from a pilot study. Front Psychol. 2023;14:1146282. https://doi.org/10.3389/fpsyg.2023.1146282
35. Lev-Ari RK, Aloni R, Ari AB. Children fleeing war-exploring the mental health of refugee children arriving in Israel after the Ukraine 2022 conflict. Child Abuse Negl. 2024;149. https://doi.org/10.1016/j.chiabu.2023.106608
36. Shyroka A, Senyk O, Zavada T, Vons O, Kornadt AE. "Should I stay or should I go?" Relationships between emotion regulation and basic needs satisfaction of parents displaced in Ukraine and abroad (during the first 6 months of the Russian invasion of Ukraine). J Educ Cult Soc. 2023; 14:269–87. doi:10.15503/jecs2023.1.269.287
37. Guerrero Z, Melicharová H, Kavanová M, Prokop D, Škvrňák M, Kunc M, et al. Mental health conditions and help-seeking among Ukrainian war refugees in Czechia: a cross-sectional study. Psychiatry Res. 2023:329:115552. https://doi.org/10.1016/j.psychres.2023.115552
38. Barlattani T, Renzi G, D'Amelio C, Pacitti F. Acute depressive reaction as a consequence of war trauma exposure: a case report of a Ukrainian refugee. Rivista di psichiatria. 2023; 58(5):237–40. https://doi.org/10.1708/4113.41073
39. Toros K, Kozmenko O, Falch-Eriksen A. 'I just want to go home, is what I need' – voices of Ukrainian refugee children living in Estonia after fleeing the war. Child Youth Serv Rev.

2024;158:107461. https://doi.org/10.1016/j.childyouth.2024.107461

40. Konstantinov V, Reznik A, Israelowitz R. Depression and quality of life among Ukrainian adults relocated to Russia. J Loss Trauma. 2023;28:493–503. https://doi.org/10.1080/15325024.2023.2216986
41. Barták M, Petruželka B, Ponomarenko M, Shuranova L, Rogalewicz V. Characteristics of alcohol use among migrants from Ukraine to the Czech Republic in the context of the war in Ukraine in 2022. KONTAKT – J Nurs Soc Sci Health Illness. 2023;25(2):124–30. https://doi.org/10.32725/kont. 2023.019
42. Urbański PK, Schroeder K, Nadolska A, Wilski M. Symptoms of depression and anxiety among Ukrainian children displaced to Poland following the outbreak of the Russo-Ukrainian war: Associations with coping strategies and resilience. Appl Psychol Health Well-Being. 2023. https://doi.org/10.1111/aphw.12510
43. Park S, Lee JS, Kim HJ, Lee H, Lee M, Kim SY, et al. Mental health screening for Korean Ukrainian refugee minors in the Republic of Korea: a cross sectional pilot study. Adolescents. 2023;3(1):141–52. https://doi.org/10.3390/adolescents3010011
44. Ben-Ezra M, Goodwin R, Leshem E, Hamama-Raz Y. PTSD symptoms among civilians being displaced inside and outside the Ukraine during the 2022 Russian invasion. Psychiatry Res. 2023;320. https://doi.org/10.1016/j.psychres.2022.115011
45. Długosz, P. War trauma and strategies for coping with stress among Ukrainian refugees staying in Poland. J Migr Health. 2023;8. https://doi.org/10.1016/j.jmh.2023.100196
46. Kovács J, Csukonyi C, Kovács KE, Liszka D, Walawender P. Integrative attitudes of Ukrainian war refugees in two neighboring European countries (Poland and Hungary) in connection with posttraumatic stress symptoms and social support. Front Public Health. 2023;11. https://doi.org/10.3389/fpubh.2023.1256102
47. Oviedo L, Seryczyńska B, Torralba J, Roszak P, Del Angel J, Vyshynska O, et al. Coping and resilience strategies among Ukraine war refugees. Int J Environ Res Public Health. 2022;19(20). https://doi.org/10.3390/ijerph192013094
48. Grabowska I, Jastrzebowska A, Kyliushyk I. Resilience embedded in psychological capital of Ukrainian Refugees in Poland. Migrat Lett. 2023;20(3):421–9. https://doi.org/10.47059/ml.v20i3.2887
49. Charlson F, van Ommeren M, Flaxman A, Cornett J, Whiteford H, Saxena S. (2019). New WHO prevalence estimates of mental disorders in conflict settings: a systematic review and meta-analysis. Lancet. 2019;394(10194):240–8. https://doi.org/10.1016/S0140-6736(19) 30934-1
50. Public Health Center of the MOH of Ukraine. National STEPS study in Ukraine; 2019 [cited 2024 Feb 21]. Available from: https://extranet.who.int/ncdsmicrodata/index.php/catalog/941
51. World Health Organisation. New research reveals how war related distress affects mental health of Ukrainian refugees in Poland; 2022 Dec [cited 2024 Apr 30]. Available from: https://www.who.int/europe/news/item/19-12-2022-new-research-reveals-how-war-related-distress-affects-mental-health-of-ukrainian-refugees-in-poland
52. Riabovolyk T, Androshchuk I, Pitel N. Employment of refugees from Ukraine during the war: problems and prospects. BJLP. 2022;3:70–8. https://doi.org/10.30525/2592-8813-2022-3-9
53. Department for Work and Pensions. Support for those fleeing the conflict in Ukraine; 2024. Available from: https://www.gov.uk/guidance/move-to-the-uk-if-youre-from-ukraine
54. Kyiv School of Economics. The total amount of damage caused to Ukraine's infrastructure due to the war has increased to almost $138 billion; 2023. Available from: https://kse.ua/about-the-school/news/the-total-amount-of-damage-caused-to-ukraine-s-infrastructure-due-to-the-war-has-increased-to-almost-138-billion/
55. Verhoef MJ, Casebeer AL. Broadening horizons: Integrating quantitative and qualitative research. Canadian J Infect Dis. 1997;8(2):65–6. https://doi.org/10.1155/1997/349145
56. National Institute for Health and Care Excellence. Depression in adults: treatment and management. (NICE Guideline NG222); 2022. Available from: https://www.nice.org.uk/guidance/ng222
57. National Institute for Health and Care Excellence. Generalised anxiety disorder and panic disorder in adults: management. (NICE Guideline CG113); 2020. Available from: https://www.nice.org.uk/guidance/cg113
58. Villalonga-Olives E, Wind TR, Armand AO, Yirefu M, Smith, Aldrich DP. Social-capital-based mental health interventions for refugees: a systematic review. Soc Sci Med. 2022;301. https://doi.org/10.1016/j.socscimed.2022.114787
59. American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th ed; 2013. https://doi.org/10.1176/appi.books.9780890425596
60. World Health Organization. International statistical classification of diseases and related health problems. 11th ed; 2019. Available from: https://icd.who.int/
61. Wang X, Cheng Z. Cross-sectional studies: strengths, weaknesses and recommendations. Chest. 2020;158(1S):S65–71. https://doi.org/10.1016/j.chest.2020.03.012
62. Green BN, Johnson CD, Adams A. Writing narrative literature reviews for peer-reviewed journals: secrets of the trade. J Chiropr Med. 2006;5(3):101–17. https://doi.org/10.1016/S0899-3467(07)60142-6
63. Kim SY, Lee JS, Choi H. The effects of art therapy on anxiety and distress for Korean-Ukrainian refugee: quasi-experimental design study. Healthcare. 2023;11(4): 466. doi: 10.3390/healthcare11040466. PMID: 36833000; PMCID: PMC9956358.
64. Mazhak I, Paludo, AC, Sudyn D. Self-reported health and coping strategies of Ukrainian female refugees in the Czech Republic. Eur Soc. 2023;26(2):411–37. https://doi.org/10.1080/14616696.2023.2203230