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Review

Mental health in refugee children

Cecilie Dangmann¹, Ragnhild Dybdahl^{4,5} and Øivind Solberg^{2,3}

Abstract

Almost half of the world's forcibly displaced population are children, most commonly originating from Syria, Iraq, and Afghanistan. Health disparities are well documented, especially for mental health, but not consistent across groups, time or context. Despite high exposure to trauma and stress, refugee children also show remarkable resilience. An ecological model of refugee health including both risk and resilience factors is therefore recommended. The model also includes the dynamic inter-relationship of past traumatic experiences, ongoing daily stressors and the disruptions of basic systems affecting both the individual and families as a whole, offering a framework to better understand the health disparities and appropriate interventions for refugee children.

Addresses

¹ Inland Norway University of Applied Sciences, Faculty of Health and Social Sciences, Hamarvegen 112, 2418 Elverum, Norway

² Norwegian Church Aid, Department of International Programmes, Box 7100, St. Olavsplass, 0130 Oslo, Norway

³ Swedish Red Cross University College, Department of Health Science, Box 1059, 141 21 Huddinge, Sweden

⁴ Norwegian Institute of Public Health, Department of Global Health, POB 222-Skøyen, 0213 Oslo, Norway

⁵ University of Bergen, Center for Crisis Psychology, Møllendalsbakken 9, 5009 Bergen, Norway

Corresponding author: Dangmann, Cecilie (cecilie.dangmann@inn.no)

Current Opinion in Psychology 2022, **48**:101460

This review comes from a themed issue on **Immigration**

Edited by **Amanda Venta**, **Alfonso Mercado** and **Melanie Domenech-Rogriguez**

For a complete overview see the [Issue](#) and the [Editorial](#)

Available online 24 August 2022

<https://doi.org/10.1016/j.copsyc.2022.101460>

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Keywords

Children, Refugees, Forced migration, Mental health, Psychosocial support, Socioeconomic determinants.

Introduction

By the end of 2021, the number of forcibly displaced people reached almost 90 million. The majority originates

from just five countries, with Syria and Afghanistan reporting the highest numbers [1]. Most are internally displaced or hosted by neighbouring countries, often low- and middle-income countries close to zones of armed conflict [1]. However, the number of first-time asylum applicants in Europe is also increasing, with applicants mainly from Syria, Afghanistan, and Iraq [2]. Half of the worldwide displaced population and about one third of the asylum applicants in Europe, are children below the age of 18 [1,2]. UNICEF estimates that conflict, violence and other crises left a record 36.5 million children displaced from their homes at the end of last year [3]. Many children arrive unaccompanied by a caregiver, but the proportion varies by country; in 2021, 3% of all children arriving in France were unaccompanied, 40% in Norway and Sweden, but in Bulgaria over 80% were unaccompanied [2].

Forced migration is seen as a global threat to mental health and refugee children are considered particularly vulnerable, as the context of displacement will affect all parts of their life and happens at crucial times of their physical, emotional, social and cognitive development [4]. Refugee children are uprooted from home, friends and family, many have travelled long and hazardous journeys and spent long periods in transit or camps. Many have experienced potentially traumatic events such as war, disaster, violence and death, and lack basic resources such as shelter, food and healthcare [5]. Although resettlement means safety and new opportunities, it also involves new challenges as the children adjust to a new life somewhere else [6]. Consequences are therefore not only immediate, it may also affect their development, future health and wellbeing [4,6].

In this article we review some of the recent literature on health consequences of forced migration, focussing mainly on mental health and general wellbeing, describing both risk and resilience factors through the lens of an ecological model of refugee health. Lastly, we review current evidence on interventions. Naturally, much of the recent literature in the field includes children from Syria, Afghanistan and Iraq, which might not be representative for other groups such as Ukrainian children. A disproportionate amount of research is also conducted in high-income countries, despite the majority of refugees living in middle or low-income countries. In this article, the term “refugee children” refers

to all forcibly displaced children, regardless of them crossing borders, cause of displacement or their legal status (e.g. internally displaced, stateless, asylum-seeker, recognised refugee status).

The health of refugee children

A health disadvantage for refugee children is well documented, especially with regards to mental health [7]. However, refugee children are not a homogenous group and this disadvantage is not consistent across all groups. In fact, recent reviews describe a wide range of prevalence rates for different types of mental distress such as post-traumatic stress disorder (PTSD), depression and anxiety (see Table 1) that vary with age, gender, measurement type, country of origin and settlement [8,9]. In line with this, a recent study conducted by our research group in Sweden, showed a PTSD prevalence nearly twice as high (56%) for minors from Afghanistan compared to rates found in minors from Syria (34%), largely explained by more minors from Afghanistan arriving unaccompanied [10]. Despite these variations, estimated prevalence rates for refugee children are still much higher than in other child populations (see Table 1) [11,12].

Studies also report high levels of somatic complaints such as headaches, stomach aches or dizziness [13,14], often interpreted as idioms of distress or ‘somatisation’ [15]. Sleep problems are also common and are closely connected to trauma and parental care [16]. Younger children may also suffer from substantial distress, but most studies include only children six years or older. Distress in pre-school children may be expressed differently, often as non-specific behavioural and emotional reactions (e.g. including traumatic events in play rituals, developing new fears, clinginess, low frustration tolerance, aggressiveness, sleep, eating or attachment problems) [17,18]. Moreover, trauma and stress in childhood has been shown to affect developmental processes, and some studies describe how forced migration is linked to working memory, emotional processing [19–21] and to future educational attainment and employment rates [22,23]. Longitudinal studies show a gradual decline in distress over time [24]. However, this decline is not uniform, instead several trajectories are described. The majority of children show

few or no symptoms, a significant majority show gradual recovery, while another group becomes increasingly worse and a small group remains chronic [25–27].

Much of the research to date on mental health in refugee children has focused mainly on post-traumatic stress, anxiety and depression, with less focus on other mental health conditions, grief, existential issues and wellbeing. Despite difficult circumstances, the majority of refugee children follow resilient trajectories and have good mental health. Measuring wellbeing and positive health outcomes should therefore complement descriptions of distress. Recent findings suggest that although psychological and physical wellbeing is reduced, satisfaction with family relations and school environments is high [28,29]. Studies also report more prosocial behaviour, such as getting along better with adults, being more helpful and sharing [30,31]. Increasingly, studies also find high levels of PTSD co-existing with relatively good levels of functioning [31,32]. In sum, the concurrence of PTSD and resilience infers critical scrutiny of the construct and vocabulary of PTSD as part of the refugee experience, as it may not capture more complex and culturally varied responses to extreme circumstances. Moreover, due to the great variability in descriptions and consequences, a holistic and long-term perspective is needed when considering the health of refugee children.

Ecological models of risk and resilience

In recent years the field of refugee research has moved from an individualised trauma-focus, to broader ecological frameworks considering risk and resilience factors at many levels, related to the different phases of displacement (pre-migration, transit and resettlement) [6,33–35]. Examples of individual level factors are age, gender or time since displacement, or personal factors such as self-efficacy, emotion regulation and coping strategies. Examples of family level factors are family functioning and parental health, household economy or parental education. Local community factors could be location (camps, institutions, rural/urban), safety, social support and quality of the neighbourhood, school environment and peer relationships. Also, wider societal factors such as acceptance, discrimination and cultural differences are important, but resettlement conditions

Table 1

Mental distress in refugee children.

Type of distress	Refugee children in Europe (mainly self-report) [8]	Refugee children worldwide (clinical assessment only) [9]	Comparisons
PTSD	19%–53%	23%	Children exposed to trauma: 16% [11]
Depression	10%–33%	14%	Worldwide prevalence in children: 3% [12]
Anxiety	9%–32%	16%	Worldwide prevalence in children: 7% [12]

(such as detention, prolonged waiting times for applications, only receiving temporary protection, living illegally and without rights in a country) have the strongest influence on health and wellbeing [5,35–37]. In this section we look closer at some of these factors and their proposed mechanisms through the lens of an ecological model.

Traditionally, research has focussed on traumatic events before or during flight, as these are well-established risk factors for mental distress. As an example, studies reveal how Syrian children have experienced several traumatic events—such as bombing, shooting, violence and death—that are closely linked to high levels of PTSD symptoms [38–41]. However, many refugee children continue to experience stress also after resettlement, related to language problems, poor social support, economic strain, discrimination and prolonged application processes [5,41]. These represent low-grade and long-term stress that both directly and indirectly influence mental health and wellbeing [42]. Ecological models highlight this dynamic interaction between past experiences and daily stress [43] and propose several mechanisms of interaction, for example how the process of recovery after traumatic events is supported by resilience factors (e. g. acceptance in the receiving communities, safety, freedom to pursue education and work), or conversely, how recovery is hampered by daily stress depleting coping resources [6,43]. Also explored is how previous trauma lowers individual tolerance to daily stressors or how symptoms of distress (e. g. anxiety and avoidance) actually create stressful situations [41,42].

Children are dependent on caregivers, and parental health is closely linked to children's health [44,45]. The most explored mechanism is how parental distress leads to harsher parenting strategies (e.g. spanking) [21,45,46]. Others describe more complex pathways where environmental factors, such as poverty, force parents to work and leave children unsupervised, or how unsafe surroundings lead to increased parental control [46]. Children who are unaccompanied are at higher risk of exploitation and trafficking, report more traumatic events, daily stress and mental health problems [10,47–49]. Despite some heterogeneity, poorer outcomes for unaccompanied children are highly consistent across settlement contexts and origin [50]. Despite being separated, familial ties remain crucial also for unaccompanied children's wellbeing, motivation and meaning-making, especially the thought of their mothers [51]. It is important to note that the label “unaccompanied” might hide a complexity of other important relations, as many minors travel with adults who are not their legal guardians or reunite with their families along the journey.

Several resilience factors, such as granted asylum, positive acculturation and coping strategies, school belonging,

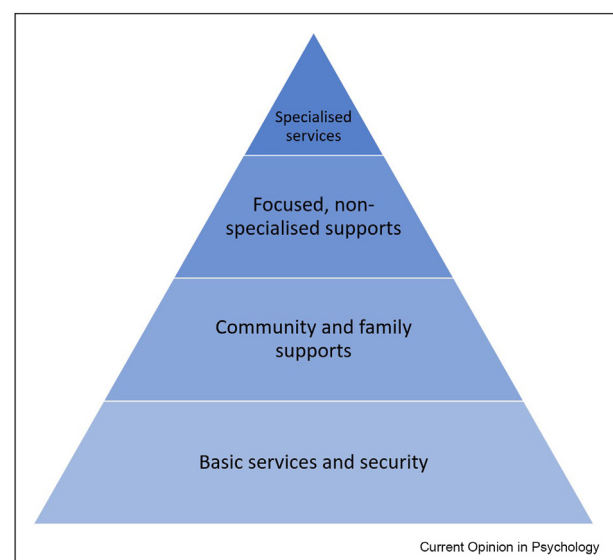
family and social support, have been identified as beneficial [5,35,52]. Other resilience factors, such as religion, cultural identity or avoidance behaviour has produced more mixed results [53]. This suggests that some resilience factors are beneficial in certain contexts like emergency situations, but not in others [54]. Additionally, other studies have found that individual level coping strategies can be protective for non-refugee groups, but not for refugee youth [55,56]. Thus, the general importance of resilience factors is evident, but the underlying mechanisms are more difficult to identify. Indeed, recent evidence supports a multiple resilience factor model where the total constellation and interaction of resilience factors promotes better functioning; there is not one specific driving factor [32,57].

Interventions

The grounding principle is that all interventions are founded on human rights, and that refugee children are first and foremost children, not refugees. Thus, all children have the right to access appropriate support and services, no matter where they come from or why they had to leave. Based on the ecological framework, a holistic approach is necessary to promote health and wellbeing in refugee children, targeting both risk and resilience factors at individual, family and societal levels [58]. The much-used *Inter-Agency Guidelines for Mental Health and Psychosocial Support* depict this approach in a pyramid of mental health and psychosocial support (see Figure 1) [59].

The pyramid shape illustrates how affected populations at large may benefit from basic services that are safe and appropriate, while recognising that a smaller proportion

Figure 1



Based on the Inter Agency Standing Committee intervention pyramid [59].

might require more focussed interventions or even clinical support.

In the bottom layer of the pyramid, *Basic services and security*, appropriate interventions depend on the context. In a humanitarian emergency these could be access to clean water and shelter, whilst during resettlement in a high-income country these could be to improve access to services through early health assessments [58] or relocating mental health services to schools [60]. Importantly, **how** essential services are delivered will determine if they are beneficial or in fact, harmful. Services also include economic support, asylum or resettlement policies, care services for unaccompanied minors and general rights and demands put on the individuals. Restrictive policies to deter further immigration could therefore increase daily stress and inflict further suffering for those who are already residents, and also affect public attitude and openness towards new residents [23,61]. There is currently a dearth of high-quality evidence for interventions at this level [53], however long-term studies have shown that a positive reception in a host country and low levels of discrimination predict low or improving rates of distress and better educational outcomes [22,27].

In the next layer of the pyramid, *Community and family supports*, interventions to strengthen supportive environments can be found. Parent-training programs are one example, their purpose is to strengthen positive parent–child interactions or treat parental symptoms [62,63]. Other interventions aim to improve teachers', social workers' or volunteers' intercultural competence and their capacities for trauma informed care, improve relations between schools and parents or peer support programs [64,65].

Variations of trauma-focused cognitive behavioural therapies (TF-CBT) are commonly used in the next *Focussed, non-specialised supports*-layer of the pyramid, and their aim is to alleviate symptoms, and increase individuals' coping capacities. These psychosocial interventions often use techniques from psychotherapy, but do not follow complete standard treatment protocols, and often include additional elements such as creative expressive techniques (e.g. drama, music), relaxation exercises, psychoeducation and counselling [65]. Interventions are often in groups, outside clinical settings (e.g. in schools or families) and run by non-specialised health personnel or teachers [59]. Effects are generally promising, but also show considerable heterogeneity including null and negative results, different results for older and young children, and for refugees and non-refugee migrant children [66]. This has prompted further research into the mediators and moderators of their effectiveness.

Finally, *Specialised services* at the top of the pyramid include clinical treatment for those with severe or complex trauma. General guidelines for PTSD in children recommend trauma-focused psychotherapy, such as TF-CBT and narrative exposure therapy (NET) [67]. However, there is uncertainty on the efficacy of these methods in refugee children and in some humanitarian settings it might not be appropriate [33,68].

Repeatedly, the daily stressors mentioned earlier are found to not only cause distress, but also reduce the effect of interventions by disrupting and exhausting personal resources [53,66,68]. On the other hand, positive relationships and support from family and environments are improving intervention outcomes [53,69]. In a novel study collating 11 datasets from different trials, improvement in daily function partly explained the effect of interventions on mental distress [70]. A recent trial with Syrian refugees in Lebanon showed how combining TF-CBT and a parent-training program had much better effect on both parental and child health as compared to only TF-CBT or the control group [71]. These all suggest that reducing daily stress and providing integrated, multi-level or stepped-care approaches with different levels of support are important investments in the future health of refugee children [59,72].

Conclusion

In general, studies show that refugee children have a health disadvantage, but these disadvantages are not consistent across all groups and contexts. Nonetheless, reported prevalence of PTSD, anxiety and depression suggest that many of these children are at risk requiring intervention. Unaccompanied minors report the highest risk of health problems due to more exposure and less support. Several interrelated factors reduce or improve refugee children's health. An ecological framework best describes these dynamic and multi-level factors and how to target these in interventions. Future studies need to adopt a comprehensive view of mental health in both descriptions and interventions, moving beyond the narrow focus of PTSD, depression and anxiety. Current research mainly describes refugee children's mental health, the next step is to act on this knowledge.

Authors' contribution

C.D. reviewed the literature, wrote the first draft and finalised the manuscript.

Ø.S. was the invited author and initial contact for the journal. Ø.S. planned the writing process and developed the main conceptual idea for the article in collaboration with C.D., then reviewed and edited all iterations of the manuscript.

R.D. contributed to the conceptualization of the article, reviewed literature and edited all iterations of the manuscript.

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Conflict of interest statement

Nothing declared.

Data availability

No data was used for the research described in the article.

References

Papers of particular interest, published within the period of review, have been highlighted as:

* of special interest

1. UNHCR: *Global Trends report 2021*. Geneva, Switzerland: United Nations High Commissioner for Refugees; 2022.
 2. Eurostat: *Statistics explained. Annual asylum statistics*. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Annual_asylum_statistics.
 3. UN: *UN News: Global perspective, Human stories*. United Nations; 2022. <https://news.un.org/en/story/2022/06/1120642>.
 4. WHO: *World mental health report: transforming mental health for all*. Geneva: World Health Organization; 2022.
 5. Scharpf F, Kaltenbach E, Nickerson A, Hecker T: **A systematic review of socio-ecological factors contributing to risk and protection of the mental health of refugee children and adolescents**. *Clin Psychol Rev* 2021, <https://doi.org/10.1016/j.cpr.2020.101930>.
- The seminal work of Mina Fazel and colleagues on Mental health of displaced and refugee children resettled in high-income countries: risk and protective factors (2012) has been cited well over a thousand times. This is a new systematic review that picks up where Fazel left, reviewing the evidence from the 10 years following the first review. It includes 63 studies and results from the more recent crises in Syria and Afghanistan.
6. WHO: *World report on the health of refugees and migrants: summary*. Geneva: World Health Organization; 2022.
- This recent report is the first to offer a global review of health and migration and calls for urgent and concerted action to support refugees and migrants across the world and to radically reorient health systems to respond to a world increasingly in motion.
7. WHO: *Report on the health of refugees and migrants in the WHO European Region: No public health without refugees and migrant health*. Denmark: World Health Organization. Regional Office for Europe; 2018.
 8. Kien C, Sommer I, Faustmann A, Gibson L, Schneider M, Krczal E, Jank R, Klerings I, Szelag M, Kerschner B, et al: Prevalence of mental disorders in young refugees and asylum seekers in European countries: a systematic review. *Eur Child Adolesc Psychiatr*, <https://doi.org/10.1007/s00787-018-1215-z>.
 9. Blackmore R, Gray KM, Boyle JA, Fazel M, Ranasinha S, Fitzgerald G, Misso M, Gibson-Helm M: **Systematic review and meta-analysis: the prevalence of mental illness in child and adolescent refugees and asylum seekers**. *J Am Acad Child Adolesc Psychiatry* 2020, <https://doi.org/10.1016/j.jaac.2019.11.011>.
 10. Solberg Ø, Nissen A, Vaez M, Cauley P, Eriksson A-K, Saboonchi F: **Children at risk: a nation-wide, cross-sectional study examining post-traumatic stress symptoms in refugee minors from Syria, Iraq and Afghanistan resettled in Sweden between 2014 and 2018**. *Conflict Health* 2020, <https://doi.org/10.1186/s13031-020-00311-y>.
- This study is one of the few with a representative sample of more than 2500 refugee children, 12–18 years, recently resettled in Sweden. One article reports on PTSD: Large differences between groups were found for PTSD prevalence, with unaccompanied minors from Afghanistan reporting the highest levels. The other reports on health-related quality of life (HRQoL) in the same group and found significantly lower levels of HRQoL compared to European references, especially for the eldest age group, those with poor economy and those living without close relatives.
11. Alisic E, Zalta AK, van Wesel F, Larsen SE, Hafstad GS, Hassanpour K, Smid GE: **Rates of post-traumatic stress disorder in trauma-exposed children and adolescents: meta-analysis**. *Br J Psychiatry* 2014, **204**:335–340, <https://doi.org/10.1192/bjp.bp.113.131227>.
 12. Polanczyk GV, Salum GA, Sugaya LS, Caye A, Rohde LA: **Annual Research Review: a meta-analysis of the worldwide prevalence of mental disorders in children and adolescents**. *JCPP (J Child Psychol Psychiatry)* 2015, <https://doi.org/10.1111/jcpp.12381>.
 13. Jensen TK, Skar A-MS, Andersson ES, Birkeland MS: **Long-term mental health in unaccompanied refugee minors: pre- and post-flight predictors**. *Eur Child Adolesc Psychiatr* 2019, **28**: 1671–1682, <https://doi.org/10.1007/s00787-019-01340-6>.
- One of the few longitudinal studies following refugees after resettlement, this study includes 47 unaccompanied refugees 5 years after resettlement in Norway. After 5 years, many still experienced clinical levels of symptoms, and the level of daily stress was an important predictor. The authors conclude that help to manage the daily stress, and long-term support is important to ensure their wellbeing and integration.
14. Hamdan-Mansour AM, Abdel Razeq NM, AbdulHaq B, Arabiat D, Khalil AA: **Displaced Syrian children's reported physical and mental wellbeing**. *Child Adolesc Ment Health* 2017, **22**:186–193, <https://doi.org/10.1111/camh.12237>.
 15. Worthman CM: **Shared and local pathways in suffering and resilience: keeping the body in mind**. *Transcult Psychiatr* 2019, **56**:775–785, <https://doi.org/10.1177/1363461519862700>.
 16. Richter K, Baumgärtner L, Niklewski G, Peter L, Köck M, Kellner S, Hillemacher T, Büttner-Teleaga A: **Sleep disorders in migrants and refugees: a systematic review with implications for personalized medical approach**. *EPMA J* 2020, **11**: 251–260, <https://doi.org/10.1007/s13167-020-00205-2>.
 17. Slone M, Mann S: **Effects of war, terrorism and armed conflict on young children: a systematic review**. *Child Psychiatr Hum Dev* 2016, **47**:950–965, <https://doi.org/10.1007/s10578-016-0626-7>.
 18. Ünver H, Çeri V, Perdahlıo Fiş N: **An overview of the mental and physical health status and post-migration psychosocial stressors of refugee toddlers and preschoolers**. *J Child Adolesc Psychiatr Nurs* 2021, **34**:335–342, <https://doi.org/10.1111/jcap.12340>.
 19. Mueller SC, Unal C, Saretta M, Al Mughairbi F, Gómez-Odrozola J, Calvete E, Metin B: **Working memory and emotional interpretation bias in a sample of Syrian refugee adolescents**. *Eur Child Adolesc Psychiatr* 2021, **30**:1885–1894, <https://doi.org/10.1007/s00787-020-01656-8>.
 20. Mirabolfathi V, Schweizer S, Moradi A, Jobson L: **Affective working memory capacity in refugee adolescents**. *Psychol Trauma Theory Res Pract Policy* 2020, <https://doi.org/10.1037/tra0000552>.
 21. Peltonen K, Gredebäck G, Pollak SD, Lindskog M, Hall J: **The role of maternal trauma and discipline types in emotional processing among Syrian refugee children**. *Eur Child Adolesc Psychiatr* 2022, <https://doi.org/10.1007/s00787-022-01962-3>.
 22. Borsch AS, de Montgomery CJ, Gauffin K, Eide K, Heikkilä E, Smith Jervelund S: **Health, education and employment outcomes in young refugees in the Nordic countries: a systematic review**. *Scand J Publ Health* 2019, **47**:735–747, <https://doi.org/10.1177/1403494818787099>.
 23. Dunlavy A, Gauffin K, Berg L, De Montgomery CJ, Europa R, Eide K, Ascher H, Hjern A: **Health outcomes in young**

- adulthood among former child refugees in Denmark, Norway and Sweden: a cross-country comparative study.** *Scand J Publ Health* 2021, <https://doi.org/10.1177/14034948211031408>.
24. Tam SY, Houlihan S, Melendez-Torres GJ: **A systematic review of longitudinal risk and protective factors and correlates for posttraumatic stress and its natural history in forcibly displaced children.** *Trauma Violence Abuse* 2017, **18**:377–395, <https://doi.org/10.1177/1524838015622437>.
 25. Keles S, Idsøe T, Friberg O, Sirin S, Oppedal B: **The longitudinal relation between daily hassles and depressive symptoms among unaccompanied refugees in Norway.** *J Abnorm Child Psychol* 2017, **45**:1413–1427, <https://doi.org/10.1007/s10802-016-0251-8>.
 26. Müller LRF, Gossmann K, Hartmann F, Büter KP, Rosner R, Unterhitzberger J: **1-year follow-up of the mental health and stress factors in asylum-seeking children and adolescents resettled in Germany.** *BMC Publ Health* 2019, <https://doi.org/10.1186/s12889-019-7263-6>.
 27. O'Donnell AW, Paolini S, Stuart J: **Distinct trajectories of psychological distress among resettled refugees: community acceptance predicts resilience while low ingroup social support predicts clinical distress.** *Transcult Psychiatr* 2022, <https://doi.org/10.1177/13634615221098309>.
 28. Dangmann C, Solberg Ø, Steffenak AKM, Høye S, Andersen PN: **Health-related quality of life in young Syrian refugees recently resettled in Norway.** *Scand J Publ Health* 2020, **48**: 688–698, <https://doi.org/10.1177/1403494820929833>.
 29. Solberg Ø, Sengoelge M, Johnson-Singh CM, Vaez M, Eriksson A-K, Saboonchi F: **Health-related quality of life in refugee minors from Syria, Iraq and Afghanistan resettled in Sweden: a nation-wide, cross-sectional study.** *Soc Psychiatr Psychiatr Epidemiol* 2021, <https://doi.org/10.1007/s00127-021-02050-8>.
- This study is one of the few with a representative sample of more than 2500 refugee children, 12–18 years, recently resettled in Sweden. One article reports on PTSD: Large differences between groups were found for PTSD prevalence, with unaccompanied minors from Afghanistan reporting the highest levels. The other reports on health-related quality of life (HRQoL) in the same group and found significantly lower levels of HRQoL compared to European references, especially for the eldest age group, those with poor economy and those living without close relatives.
30. Nilsen SA, Kvestad I, Randal SB, Hysing M, Sayyad N, Bøe T: **Mental health among unaccompanied refugee minors after settling in Norway: a matched cross-sectional study.** *Scand J Publ Health* 2022, <https://doi.org/10.1177/14034948221100103>.
 31. Spaas C, Verelst A, Devlieger I, Aalto S, Andersen AJ, Durbeej N, Hilden PK, Kankaanpää R, Primdahl NL, Opaas M, et al.: **Mental health of refugee and non-refugee migrant young people in European secondary education: the role of family separation, daily material stress and perceived discrimination in resettlement.** *J Youth Adolesc* 2022, **51**:848–870, <https://doi.org/10.1007/s10964-021-01515-y>.
- This article describes mental health and wellbeing in 889 refugee and 483 non-refugee migrants participating in a large trial spanning 5 European countries. This allowed comparison of refugee and non-refugee migrants across 5 European host countries. In addition to high trauma in refugee youth they found high trauma rates also in non-refugee youth, discrimination being a shared strong influence on health and differences in mental health for refugee youth according to what country they lived in.
32. Dangmann C, Solberg Ø, Myhre Steffenak AK, Høye S, Andersen PN: **Syrian refugee youth resettled in Norway: mechanisms of resilience influencing health-related quality of life and mental distress.** *Front Public Health* 2021, <https://doi.org/10.3389/fpubh.2021.711451>.
 33. Silove D, Ventevogel P, Rees S: **The contemporary refugee crisis: an overview of mental health challenges.** *World Psychiatr* 2017, **16**:130–139, <https://doi.org/10.1002/wps.20438>.
 34. Miller KE, Jordans MJD, Tol WA, Galappatti A: **A call for greater conceptual clarity in the field of mental health and psychosocial support in humanitarian settings.** *Epidemiol Psychiatr Sci* 2021, <https://doi.org/10.1017/S2045796020001110>.
 35. Arakelyan S, Ager A: **Annual Research Review: a multilevel bioecological analysis of factors influencing the mental health and psychosocial well-being of refugee children.** *JCPP (J Child Psychol Psychiatry)* 2020, **62**:484–509, <https://doi.org/10.1111/jcpp.13355>.
- This systematic, integrative review is an example of how researchers might operationalize Bronfenbrenner's bioecological theory in the field of mental health in refugee children, offering an explanatory mechanism to make sense of a broad and multidisciplinary field. It includes a compelling list of well-researched factors impacting development in four broad categories: individual factors; familial factors; community factors and institutional and policy factors. They also include three crucial elements many other researchers miss: the element of time, the importance of proximal processes and child agency, offering alternative explanations to those often found in literature.
36. Fazel M, Reed RV, Panter-Brick C, Stein A: **Mental health of displaced and refugee children resettled in high-income countries: risk and protective factors.** *Lancet* 2012, **379**: 266–282, [https://doi.org/10.1016/S0140-6736\(11\)60051-2](https://doi.org/10.1016/S0140-6736(11)60051-2).
 37. Suárez-Orozco C, Motti-Stefanidi F, Marks A, Katsiaficas D: **An integrative risk and resilience model for understanding the adaptation of immigrant-origin children and youth.** *Am Psychol* 2018, **73**:781, <https://doi.org/10.1037/amp0000265>.
 38. Dehnel R, Dalky H, Sudarsan S, Al-Delaimy WK: **Resilience and mental health among Syrian refugee children in Jordan.** *J Immigr Minor Health* 2021, <https://doi.org/10.1007/s10903-021-01180-0>.
 39. Giordano F, Cipolla A, Ragnoli F, Brajda Bruno F: **Transit migration and trauma: the detrimental effect of interpersonal trauma on Syrian children in transit in Italy.** *Psychol Inj Law* 2019, **12**:76–87, <https://doi.org/10.1007/s12207-019-09345-x>.
 40. Kandemir H, Karataş H, Çeri V, Solmaz F, Kandemir SB, Solmaz A: **Prevalence of war-related adverse events, depression and anxiety among Syrian refugee children settled in Turkey.** *Eur Child Adolesc Psychiatr* 2018, **27**: 1513–1517, <https://doi.org/10.1007/s00787-018-1178-0>.
 41. Dangmann C, Solberg Ø, Andersen PN: **Health-related quality of life in refugee youth and the mediating role of mental distress and post-migration stressors.** *Qual Life Res* 2021, <https://doi.org/10.1007/s11136-021-02811-7>.
 42. Hou WK, Liu H, Liang L, Ho J, Kim H, Seong E, Bonanno GA, Hobfoll SE, Hall BJ: **Everyday life experiences and mental health among conflict-affected forced migrants: a meta-analysis.** *J Affect Disord* 2020, **264**:50–68, <https://doi.org/10.1016/j.jad.2019.11.165>.
- This meta-analysis included 59 studies describing daily stress after migration and the effect on mental distress and wellbeing. They found stronger effect sizes from combined stressors (interpersonal, material and subjective) for general distress and effect sizes were stronger for children. Daily stressors fully mediated the association of trauma with post-migration mental distress confirming the hypothesis in the ecological model of refugee distress (Miller & Rasmussen, 2017).
43. Miller KE, Rasmussen A: **The mental health of civilians displaced by armed conflict: an ecological model of refugee distress.** *Epidemiol Psychiatr Sci* 2017, **26**:129–138, <https://doi.org/10.1017/S2045796016000172>.
 44. Berg L, de Montgomery E, Brendler-Lindquist M, Mittendorfer-Rutz E, Hjern A: **Parental post-traumatic stress and psychiatric care utilisation among refugee adolescents.** *Eur Child Adolesc Psychiatr* 2021, <https://doi.org/10.1007/s00787-021-01827-1>.
 45. Bryant RA, Edwards B, Creamer M, O'Donnell M, Forbes D, Felmingham KL, Silove D, Steel Z, Nickerson A, McFarlane AC, et al.: **The effect of post-traumatic stress disorder on refugees' parenting and their children's mental health: a cohort study.** *Lancet Public Health* 2018, **3**:e249–e258, [https://doi.org/10.1016/S2468-2667\(18\)30051-3](https://doi.org/10.1016/S2468-2667(18)30051-3).
 46. Sim A, Fazel M, Bowes L, Gardner F: **Pathways linking war and displacement to parenting and child adjustment: a qualitative study with Syrian refugees in Lebanon.** *Soc Sci Med* 2018, **200**:19–26, <https://doi.org/10.1016/j.socscimed.2018.01.009>.
 47. Heenan RC, Volkman T, Stokes S, Tosif S, Graham H, Smith A, Tran D, Paxton G: **'I think we've had a health screen': new**

- offshore screening, new refugee health guidelines, new Syrian and Iraqi cohorts: recommendations, reality, results and review.** *J Paediatr Child Health* 2019, **55**:95–103, <https://doi.org/10.1111/jpc.14142>.
48. Höhne E, van der Meer AS, Kamp-Becker I, Christiansen H: **A systematic review of risk and protective factors of mental health in unaccompanied minor refugees.** *Eur Child Adolesc Psychiatr* 2020, <https://doi.org/10.1007/s00787-020-01678-2>.
 49. Müller LRF, Büter KP, Rosner R, Unterhitzberger J: **Mental health and associated stress factors in accompanied and unaccompanied refugee minors resettled in Germany: a cross-sectional study.** *Child Adolesc Psychiatr Ment Health* 2019, <https://doi.org/10.1186/s13034-019-0268-1>.
 50. Bamford J, Fletcher M, Leavey G: **Mental health outcomes of unaccompanied refugee minors: a rapid review of recent research.** *Curr Psychiatr Rep* 2021, <https://doi.org/10.1007/s11920-021-01262-8>.
 51. Dybdahl R, Sørensen T, Hauge HA, Røsvik K, Lien L, Eide K: **Same but different: meaning-making among refugee and non-refugee youths.** *Int J Migrat Health Soc Care* 2021, **17**: 433–448, <https://doi.org/10.1108/IJMHS-02-2021-0019>.
 52. Marley C, Mauki B: **Resilience and protective factors among refugee children post-migration to high-income countries: a systematic review.** *Eur J Publ Health* 2019, **29**:706–713, <https://doi.org/10.1093/eurpub/cky232>.
 53. Bosqui TJ, Marshoud B: **Mechanisms of change for interventions aimed at improving the wellbeing, mental health and resilience of children and adolescents affected by war and armed conflict: a systematic review of reviews.** *Conflict Health* 2018, **12**:15, <https://doi.org/10.1186/s13031-018-0153-1>.
- This novel umbrella review looks at effective mechanisms of change, instead of only whole interventions or outcomes. What part of interventions seem to have an effect? Only 4 mechanisms were supported by strong empirical evidence: strengthening family relationships, building caregiver capacity, personal problem-solving skills and therapeutic rapport.
54. Panter-Brick C, Hadfield K, Dajani R, Eggerman M, Ager A, Ungar M: **Resilience in context: a brief and culturally grounded measure for Syrian refugee and Jordanian host-community adolescents.** *Child Dev* 2017, **89**:1–18, <https://doi.org/10.1111/cdev.12868>.
 55. Seglem KB, Oppedal B, Roysamb E: **Daily hassles and coping dispositions as predictors of psychological adjustment.** *Int J Behav Dev* 2014, **38**:293–303, <https://doi.org/10.1177/0165025414520807>.
 56. Sleijpen M, van der Aa N, Mooren T, Laban CJ, Kleber RJ: **The moderating role of individual resilience in refugee and Dutch adolescents after trauma.** *Psychol Trauma Theory Res Pract Policy* 2019, **11**:732–742, <https://doi.org/10.1037/tra0000450>.
 57. Fritz J, de Graaff AM, Caisley H, van Harmelen A-L, Wilkinson PO: **A systematic review of amenable resilience factors that moderate and/or mediate the relationship between childhood adversity and mental health in young people.** *Front Psychiatr* 2018, <https://doi.org/10.3389/fpsy.2018.00230>.
 58. Hjern A, Kadir A: *Health of refugee and migrant children.* Copenhagen: World Health Organization Regional Office for Europe; 2018.
 59. Inter-Agency Standing Committee (IASC): *IASC guidelines on mental health and psychosocial support in emergency settings.* 2007, <https://doi.org/10.1037/e518422011-002>.
 60. Fazel M, Garcia J, Stein A: **The right location? Experiences of refugee adolescents seen by school-based mental health services.** *Clin Child Psychol Psychiatr* 2016, **21**:368–380, <https://doi.org/10.1177/1359104516631606>.
 61. Krasnik A, Jervelund SS, Rosenkrantz de Lasson A-K. *Coming of Age in Exile: health and socio-economic inequalities in young refugees in the Nordic welfare societies.* Copenhagen: University of Copenhagen, Department of Public Health; 2020.
- This is the report from a large Nordic study describing the results from several studies, methods and sites, including the use of register data in cross-comparison of several Nordic host-countries.
62. Gillespie S, Banegas J, Maxwell J, Chan A, Ali Saleh Darawsha N, Wasil A, Marsalis S, Gewirtz A: **Parenting interventions for refugees and forcibly displaced families: a systematic review.** *Clin Child Fam Psychol Rev* 2022, <https://doi.org/10.1007/s10567-021-00375-z>.
 63. Sim AL, Bowes L, Maignant S, Magber S, Gardner F: **Acceptability and preliminary outcomes of a parenting intervention for Syrian refugees.** *Res Soc Work Pract* 2021, **31**:14–25, <https://doi.org/10.1177/1049731520953627>.
 64. Stratford B, Cook E, Hanneke R, Katz E, Seok D, Steed H, Fulks E, Lessans A, Temkin D: *A scoping review of school-based efforts to support students who have experienced trauma.* *School Ment Health*; 2020, <https://doi.org/10.1007/s12310-020-09368-9>.
 65. Bennouna C, Khauli N, Basir M, Allaf C, Wessells M, Stark L: **School-based programs for Supporting the mental health and psychosocial wellbeing of adolescent forced migrants in high-income countries: a scoping review.** *Soc Sci Med* 2019, <https://doi.org/10.1016/j.socscimed.2019.112558>.
- This scoping review includes detailed descriptions of school-based programs useful for future implementation efforts.
66. Purgato M, Gross AL, Betancourt T, Bolton P, Bonetto C, Gastaldon C, Gordon J, O'Callaghan P, Papola D, Peltonen K, et al.: **Focused psychosocial interventions for children in low-resource humanitarian settings: a systematic review and individual participant data meta-analysis.** *Lancet Global Health* 2018, **6**:e390–e400, [https://doi.org/10.1016/S2214-109X\(18\)30046-9](https://doi.org/10.1016/S2214-109X(18)30046-9).
 67. Cohen J, Brent D, Friedman M: *Psychosocial interventions for posttraumatic stress disorder in children and adolescents - UpToDate.* UpToDate; 2022.
 68. Turrini G, Purgato M, Acarturk C, Anttila M, Au T, Ballette F, Bird M, Carswell K, Churchill R, Cuijpers P, et al.: **Efficacy and acceptability of psychosocial interventions in asylum seekers and refugees: systematic review and meta-analysis.** *Epidemiol Psychiatr Sci* 2019, **28**:376–388, <https://doi.org/10.1017/S2045796019000027>.
- This extensive review and meta-analysis includes 26 trials of psychosocial interventions and gives an updated insight into the effectiveness of these interventions.
69. Jordans MJD, Pigott H, Tol WA: **Interventions for children affected by armed conflict: a systematic review of mental health and psychosocial support in low- and middle-income countries.** *Curr Psychiatr Rep* 2016, **18**:9, <https://doi.org/10.1007/s11920-015-0648-z>.
 70. Purgato M, Tedeschi F, Betancourt TS, Bolton P, Bonetto C, Gastaldon C, Gordon J, O'Callaghan P, Papola D, Peltonen K, et al.: **Mediators of focused psychosocial support interventions for children in low-resource humanitarian settings: analysis from an Individual Participant Dataset with 3,143 participants.** *JCPP (J Child Psychol Psychiatry)* 2020, **61**: 584–593, <https://doi.org/10.1111/jcpp.13151>.
- This novel article re-analyses the collated datasets from 11 randomized controlled trials to explore mediators of interventions (or mechanisms of change) based on an ecological resilience framework. Functional impairment was the strongest mediator accounting for 30% of intervention effects. Proposed mediation by coping, hope and social support was not supported.
71. El-Khani A, Cartwright K, Maalouf W, Haar K, Zehra N, Çokamayı-Yölmaz G, Calam R: **Enhancing teaching recovery techniques (Trt) with parenting skills: rct of trt + parenting with trauma-affected Syrian refugees in Lebanon utilising remote training with implications for insecure contexts and covid-19.** *Int J Environ Res Publ Health* 2021, **18**, <https://doi.org/10.3390/ijerph18168652>.
 72. Fazel M, Betancourt TS: **Preventive mental health interventions for refugee children and adolescents in high-income settings.** *Lancet Child Adolesc Health* 2017, [https://doi.org/10.1016/S2352-4642\(17\)30147-5](https://doi.org/10.1016/S2352-4642(17)30147-5).