

# Neurodevelopmental problems of unaccompanied refugee and migrant children: a new challenge for pediatric neurologists



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As highlighted by the United Nations High Commissioner for Refugees (UNHCR <https://www.refworld.org/docid/540ef77c4.html>), a growing number of unaccompanied and separated children have recently entered Europe. In 2012, 13 320 children asked for asylum in the European Union, rising to 90 000 in 2015. These children abandon their countries of origin for a variety of reasons, such as fleeing from persecution, war, exploitation, or poverty. Some are sent by their families; others may have decided to leave of their own accord in the hopes of finding employment and better education.

Unaccompanied children are certainly an at-risk population, as they face traumatic events, consequences of war in their country of origin, often dangerous journeys of exile, as well as the difficulties they encounter when they arrive in Europe.

In situations of forced displacement, parents and caregivers find it difficult to care adequately for their children because of lack of livelihood or access to essential services (<https://www.refworld.org/docid/540ef77c4.html>). Parental distress, abrupt changes in daily life, sudden separation from family, friends,

and familiar places, and other child protection risks have a negative effect on children's well-being. The uncertainty that displaced and refugee children encounter can damage their neurodevelopmental processes. For this reason, it is crucial to identify the physical, social, and psychological issues that can have a negative impact on their well-being and development.

As reported by Minhas et al.,<sup>1</sup> refugee children have particular health needs, such as immunization catch-up, screening for infectious diseases and nutritional deficiencies, as well as mental health and trauma support. However, they also need developmental evaluation, education, and assessment which should be integrated into the health services provided to refugees.

Refugee pediatric patients exhibit neurological disorders only partly due to cultural differences; headaches and seizures, or seizure-like symptoms, are frequent complaints. While they manifest a high number of psychiatric diagnoses, neurological problems that require immediate hospital admission are less frequent.<sup>2</sup>

Reducing immediate and long-term risks to their neurodevelopment, improving their mental health and psychosocial well-being, and sustaining their resilience, requires specific skills of well-trained pediatric neurologists.<sup>3</sup>

As part of its 47th congress held in Paris earlier this year, the Société Européenne de Neurologie Pédiatrique (SENP) reminded us that neurodevelopment is a continuous phenomenon that goes from the prenatal period beyond the age of 18 years. The SENP highlighted the crucial role of the environment on neurodevelopment, especially nutrition and stress conditions.

The SENP is involved in the care of vulnerable children particularly when they present mental or motor deficits or disorders of the nervous system. As such, the SENP is dedicated to sharing its expertise, particularly in countries most affected by the arrival of refugee and migrant children, to protect their well-being and to provide them with access to the care they need.<sup>4</sup>

The SENP considers it a moral and ethical duty to take a stand on the plight of unaccompanied children and assist them whenever its expertise is necessary. Hence, the SENP warns the political authorities of European countries about the psychological<sup>4</sup> and physical<sup>5</sup> suffering of these children and the imperative need to evaluate and respond.

## REFERENCES

1. Minhas RS, Graham H, Jegathesan T, Huber J, Young E, Barozzino T. Supporting the developmental health of refugee children and youth. *Paediatr Child Health* 2017; **22**: 68–71.
2. Brinckmann MP, van Noort BM, Leithner C, Ploner CJ. Neurological emergencies in refugees. *Front Neurol* 2018; **9**: 1088.
3. Rice J. Advocacy for refugee children with disabilities. *Dev Med Child Neurol* 2017; **59**: 669.
4. Zamani M, Zarghami A. The refugee and immigration crisis in Europe: urgent action to protect the mental health of children and adolescents. *J Adolesc Health* 2016; **58**: 582.
5. Mateen FG, Carone M, Haskew C, Spiegel P. Reportable neurologic diseases in refugee camps in 19 countries. *Neurology* 2012; **79**: 937–40.