EMPHNET's Research Digest

A Systematic Review of the Burden of Access to Services for and Perceptions of Patients with Overweight and Obesity in Humanitarian Crisis Settings

Introduction

Excess body weight, encompassing overweight and obesity, is recognized as a global health emergency, Equaling 2.8% of the world's GDP and contributing to 4 million deaths annually. The World Health Organization (WHO) identifies it as a major risk factor for non-communicable diseases (NCDs), which claim over 15 million lives prematurely each year. Moreover, excess body weight has been associated with increased morbidity and mortality from infectious diseases, as evidenced during the COVID-19 pandemic.

Humanitarian crises, such as violence, persecution, and natural disasters, have displaced over 82 million people globally, with the majority internally displaced within their own countries. In many regions, particularly in Africa and the Middle East, NCDs, including obesity, are becoming more significant contributors to death and disability. Although NCDs in humanitarian settings have been largely neglected in the past, the growing intersection of these issues has sparked calls for increased research and improved management. While progress has been made in addressing other NCDs like diabetes and cardiovascular diseases, obesity has not received the same level of focused attention.

This review, published in PLOS ONE, titled, "A Systematic Review of the Burden of Access to Services for and Perceptions of Patients with Overweight and Obesity in Humanitarian Crisis Settings," aims to fill this gap by examining the prevalence, incidence, and management of overweight and obesity in populations directly affected by humanitarian crises, as well as exploring patient perceptions and changes in adiposity over time.

Methodology

The systematic review followed PRISMA 2020 guidelines, utilizing the SWiM extension. Eligibility criteria focused on non-pregnant civilian adults affected by humanitarian crises, with studies published from 2011 onwards. Conference proceedings, letters, and opinion pieces were excluded, while reports from NGOs were included if they described data collection methods.

The primary outcomes assessed were the prevalence, incidence, and changes in adiposity over time, as well as the cascade of care for obesity. The Secondary outcomes included barriers to treatment access and integration of weight management in health promotion programs.

Searches were conducted across five databases, including grey literature from relevant organizations. Data collection involved extracting information such as study types, population characteristics, and outcome measures. Risk of bias (ROB) was assessed using a modified Hoy et al. tool, and a narrative synthesis was conducted due to heterogeneity across studies.

Results

A total of 481 full-text reports were assessed for eligibility. Ultimately, 56 reports from 45 studies were included in the review. Among the included studies, 17 reports related to conflict situations, 16 to long-standing refugee situations, 13 to natural disasters, and 10 addressed mixed exposures. Several crises were the focus of multiple studies, with the Great East Japan Earthquake, the Syrian internal conflict, and the Palestinian situation among the most frequently studied. Geographically, most reports came from USA (12 reports) Japan (10 reports), Syria (9 reports), Palestine (6 reports), and Iraq (6 reports).

In terms of study settings, 35 reports were from high-income countries (HICs), 20 from low- and middle-income countries (LMICs), and one report covered both settings. Data collection occurred after the onset of a natural disaster, ranging from four months to four years after the disaster, or during ongoing refugee or resettlement processes.

Displacement was a key factor in 40 reports, while 4 considered non-displaced populations, and 10 included both displaced and non-displaced individuals. Sample sizes varied widely, with the largest study including 444,356 participants and the smallest only 28. Notably, only 8 studies reported measures of spread for population-level or subgroup estimates. Although studies may have included children, data extraction was limited to adults. Age ranges varied, and while most studies included both men and women, a few focused solely on men or women.

Prevalence of Overweight and Obesity

The prevalence of overweight and obesity was reported in 47 studies using WHO-recommended BMI cut-offs, while 9 studies used non-standard definitions. Across whole populations, the combined prevalence of overweight and obesity in conflict EMR countries ranged from 22.0% in Yemen to 82.8% in Jordan, and in long-standing refugee situations from 14.1% to 64.1% in Palestine. Studies with low internal ROB reported combined prevalence estimates ranging from 6.4% in LMICs to 65% in HICs. Studies from the Middle East exhibited wide ranges, with overweight ranging from 12.4% to 38.3%, and obesity from 0% to 52.7%.

Prevalence of Overweight and Obesity in Subgroups

Subgroup prevalence estimates for overweight, obesity, and their combination varied widely, with the largest range seen in the combined category. Conflict situations resulted in the widest range of estimates, while mixed exposures, including studies conducted as part of pre- and post-immigration health checks, showed narrower ranges. Notable high prevalence rates were found among West African women and older populations in Japan and Palestine. In terms of gender, several studies found higher obesity rates in women, while overweight prevalence was more variable across sexes. Additionally, all studies noted that overweight and obesity prevalence increased with age.

Changes Over Time and With Displacement

Ten studies reported changes in the prevalence of overweight and obesity over time, with the majority noting an increase, particularly among displaced populations in HICs. Of those that reported an increase, one study on Iraqi refugees found that refugee populations experienced significant weight gain within the first year of relocation to the USA, and another found that for every additional year refugees lived in the USA, the risk of being overweight or obese increased by 23% among men and 18% among women when adjusted for confounders. As for the significance of displacement, reports from the Great East Japan Earthquake indicated that BMI increased more significantly among displaced or evacuated populations compared to those who were not displaced or evacuated.

Other Outcomes

Few studies examined outcomes beyond prevalence. Reports from the Middle East indicated poor dietary habits, including low fruit and vegetable intake and low levels of physical activity in refugee populations. Alternative measures of adiposity, such as waist circumference, were infrequently used, and recorded in only 13 studies. There were no papers reporting on the cascade of care for obesity.

Conclusion

Overweight and obesity are increasingly common in crisis-affected populations, although the prevalence varies depending on the setting. Enhanced data reporting, especially during prolonged crises, could provide more accurate estimates and help identify when and where interventions are needed. However, significant gaps remain in understanding the cascade of care for obesity, with few efforts made to address this issue in humanitarian contexts. The lack of qualitative research also limits our understanding of effective interventions, underscoring the need for studies on cultural norms and care strategies. In displaced populations, weight gain tends to rise with prolonged stays in host countries, this indicates that service providers should anticipate obesity and related complications in protracted crises. Despite this, interventions targeting obesity remain limited, compounded by challenges in data collection, infrastructure, and NCD management. Preventive measures are vital but are often neglected in the immediate crisis response.

Shmeisani, Abdallah Ben Abbas Street, Building No 42,
P.O.Box: 963709, Postal Code: 11196 Amman, Jordan
Tel: +962-6-5519962
Fax: +962-6-5519963
www.emphnet.net
info@emphnet.net