Equity Versus Equality: A Spotlight on Health Inequalities

Authors: Anaya Malik, EMJ, London, UK

Citation: EMJ Diabet. 2023;11[1]:25-27. DOI/10.33590/emjdiabet/10303633. https://doi.org/10.33590/emjdiabet/10303633.

THE Primary Care Diabetes Europe (PCDE) study group shared the results of its educational projects focused on health inequalities in diabetes, in a symposium titled 'A Spotlight on Health Inequalities by Gender, Ethnicity, and Migration Status'. The session was presented at the European Association for the Study of Diabetes (EASD) 2023 Annual Meeting, chaired by Pinar Topsever, Acıbadem University School of Medicine, Istanbul, Türkiye, and PCDE Board Member.

Current guidelines and classifications for the risk of developing Type 2 diabetes (T2D) place primary emphasis on medical risk factors over aspects of social determinants of health and contextual factors. With the rising prevalence of multimorbidity, closely associated with the ageing population, the approach to most healthcare, medical research, and medical education still focuses on the single disease framework.

EXTERNAL VALIDATION OF DIABETES USING CARDIOVASCULAR RISK MODELS

Rimke Vos, University Medical Center (UMC) Utrecht, the Netherlands, presented the first of three studies conducted by the PCDE shared in this session. The study group challenged the single disease framework, and aimed to produce evidence on the importance of social determinants of health in clinical decision-making and risk prediction. There is a need to integrate this knowledge, Vos shared, into our treatment decisions and consider whether decision-making algorithms, initially designed for specific populations, are applicable to a diverse and multifaceted patient population.

Their research aimed to externally validate SCORE2-DM and evaluate the model performance within a socioeconomic and ethnic diverse group in The Hague, the Netherlands. The risk score was further stratified based on disposable household income, migration background, and origin. The study included 22,878 inhabitants, with 12,124 males and 10,754 females, equally distributed according to socioeconomic status. The median follow-up period extended to approximately 9 years, during which 2,193 cardiovascular events occurred. Overall, in regions with a low risk of cardiovascular events, SCORE2-DM showed strong predictive accuracy for identifying individuals with T2D at a high risk of cardiovascular events.

When stratified by socioeconomic status, there was an underestimation of risk among individuals with lower socioeconomic status, and an overestimation among those with higher socioeconomic status in both sexes. Additionally, females with an immigration background and high socioeconomic status experienced an underestimation of their cardiovascular risk.

> **"The data revealed the high prevalence of complications in minority populations."**

By combining both medical and social determinants of health and analysing the impact of ethnic minorities and low income, the study

group gained better insight into how applicable the algorithm was for the population. The large dataset used was a key strength of the study, confirmed Vos, although it lacked detail to differentiate between different immigration backgrounds.

DISPROPORTIONATE CARDIO RENAL EFFECTS IN ETHNIC POPULATIONS

Samuel Seidu, Chair of the PCDE Research Study Group, University of Leicester, UK, presented on ethnic disparities in the effects of glucagon-like peptide-1 receptor agonists and sodium-glucose co-transporter-2 inhibitors on cardiovascular and renal outcomes. The session highlighted the disproportionate cardio renal effects observed in ethnic populations, with a specific focus on the use of these new agents in Black individuals. Seidu also highlighted the challenges associated with recruiting diverse populations for clinical trials and the impact of limited statistical power. He shared data from the UK that showed a significantly higher prevalence of T2D among ethnic minority groups, with nearly 80% of individuals under the age of 60 affected, compared to less than 60% among the White population. These differences in T2D prevalence have consequences on the health and economic status of affected working populations, leading to disproportionate health inequalities.

The data presented by Seidu revealed the high prevalence of complications in minority populations and the suboptimal prescription of treatments. These findings underscore the importance of ensuring that clinical trials are representative of the diverse population proportionate to trial outcomes and the needs of the population.

GESTATIONAL DIABETES PREVALENCE IN VARYING SUBGROUPS

Francesc Xavier Cos Claramunt, Chairman of PCDE, and Autonoma University in Barcelona, Spain, reported on a study focusing on gestational diabetes (GD) complications among females accessing sexual and reproductive health care services in primary care in Catalonia, Spain.

GD is one of the most common pregnancy-related disorders. Its prevalence is increasing worldwide and is associated with complications in delivery, increasing maternal obesity, and

maternal age. Screening opportunities have increased in some countries, and countries may adhere to different diagnostic criteria for diabetes in pregnancy, including the International Association of Diabetes and Pregnancy Study Groups (IADPSG) criteria. Claramunt explained that existing studies are discordant with GD prevalence in association with socioeconomic status, largely due to the lack of a global consensus on the diagnostic criteria.

"Existing studies are discordant with GD prevalence in association with socioeconomic status."

Claramunt presented a study on the prevalence of GD in Catalonia, which did not demonstrate a significant increase in the prevalence of GD throughout a 10-year period (2010–2019). However, there were certain categories where increased prevalence was observed, particularly among younger females and those with specific birth characteristics.

The study suggested that females with a higher socioeconomic status had a lower prevalence of GD compared to those with lower socioeconomic status, with a 24% difference between the greatest extremes. Observation of higher prevalence of disease in particular subgroups garners attention on public health efforts to manage and prevent GD, with an emphasis on weight and obesity management.

SPOTLIGHT ON HEALTH INEQUALITIES

The presented studies critically challenge the importance of social factors of health, ethnicity, and socioeconomic status in clinical decision-making and healthcare research. They also highlight the need to address healthcare disparities among different populations, and ensure an approach to healthcare that addresses social factors, equitable trial recruitment, and access to healthcare services.

"The studies highlight the need to address healthcare disparities among different populations."