Worldwide scientific production in dental public health. Why it matters for the reduction of oral health inequalities?

According to the latest Global Burden of Disease Study, oral diseases have remained as the most prevalent for nearly two decades in most regions of the world. The study's results show that almost half of the world's population suffered from some oral disease in 2017.[1] This is a major public health problem that has not been adequately addressed by decision makers and academia, mainly in developing countries, even though a number of preventive-promotional measures are known to exist that would allow good oral health.

The design and implementation of strategies aimed at the population cannot depend on the intuition or expertise of decision makers, but must be based on the best possible scientific evidence, ensuring their effectiveness and a significant reduction in oral disease rates.[2,3] However, national oral health strategies and programs are sometimes designed without considering the evidence or in the absence of local evidence. Therefore, the implementation of such actions, while showing some improvement in health indicators, fail to meet the oral health needs of the population.[4]

Dental public health is the specialty of dentistry responsible for epidemiological surveillance, policy design, and oral health prevention and promotion among the population, and therefore research and development in this field are central to reduce the burden of oral diseases and inequalities in oral health.[5] However, a rehabilitative, high-tech, interventional, specialized, individual approach is predominant in high-income countries, not addressing the early stages of oral diseases; this approach increases inequalities instead of reducing them, since a portion of the population lacks access to this type of services. On the other hand, in low- and middle-income countries (LMICs), the dental practice is inadequate, unaffordable and not accessible

to the entire population due to the insufficient supply of services offered at the community level, and to social, individual, and health systems factors, in contravention of the Sustainable Development Goals, especially the one that reads "leaving no one behind".[6]

A PubMed search on scientific production in dental public health by region through the search strategy: "oral health[mesh] OR oral health[tiab] OR dental[tiab] OR bucal[tiab] AND ("public health"[tiab] OR "public policy"[tiab]) OR (Public Health Dentistry[mesh] OR "Public Health Dentistry"[tiab])", combined with filters made by Jahangir et al,[7] clearly shows that most scientific output on the subject belongs to Europe and Russia with 56% of the production (16,719 documents), secondly the United States and Canada with 6,945 documents (23.3%), followed by Latin America with 3,450 (11.6%), India 1,798 (6,02%) and China 944 (3.2%). It should be noted that Brazil accounts for 59% of production in Latin America.

Our results place Latin America in a better position than India and China in terms of production in dental public health, yet production is scarce considering that this is a region with deep social inequalities and low levels of oral health care. One of the region's main problems is access to oral health services and therefore to basic preventive and recovery treatments, usually in people living in poverty and extreme poverty; the dental services portfolio offered by the public health system is also limited.[7] These needs must be properly monitored and studied in order to design effective strategies and policies to meet them.

On the other hand, global production in dental public health appears to be concentrated in developed regions, such as North America and Europe, with a positive impact on their health policies, favoring the implementation of preventive measures among the population, which results in a reduction of their epidemiological indices of oral diseases over the years.[8] These results, while beneficial to the population living in these regions, within the concept of global oral health, produce even greater inequality.

That being said, more scientific production is needed globally, mainly in LMICs like those of Latin America. Only in this way dental public health can be properly addressed by decision-makers, starting with the creation of evidence-based policies that have a positive impact on oral health indicators, so that needs and gaps can be overcome, meeting the Millennium Development Goals.

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