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Climate Change Induced Migration and Its Association with Oral Health Related Quality of Life

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Abstract

Climate change is a significant event that has a direct and indirect impact on public health. In addition to droughts, sea level rise, and glacier melt, social and environmental factors that influence health are also impacted by climate change**.** Every year, millions of people are forced to leave their homes due to climate change which has an indirect influence on their social well-being and health. The impact of this movement brought on by climate change is significant, affecting not only the general public's health but also their quality of life in terms of their oral health. It is critical to address the effects of climate-induced migration as well as the migrant population's awareness of oral health issues as public health professionals and policymakers, and in accordance with the fundamental level of prevention. This article also discusses how oral health literacy, cultural beliefs, and migration patterns affect migrants' ability to acquire good oral health in their new environment.

Keywords

Acculturation, oral health literacy, oral health utilization, cultural beliefs, migrants, climate change

Introduction

In consequence of climate change, devastating droughts and floods occur, extreme weather occurs, natural resources are destroyed, including lands, soil and water resulting in severe live hood conditions

famine and starvation thus, forcing people to leave their homelands making them an environmental refugee. The Intergovernmental Panel on Climate Change **(IPCC)** warned in **1990** that human migration could be the most significant single impact of climate change, with millions of people potentially forced to leave their homes due to coastline erosion, coastal flooding, and agricultural disruption. Also, as a result of this, refugees and migrants continue to be among society's most vulnerable citizens, commonly facing xenophobia, discrimination, poor living, housing, and working situations, and little access to health services, despite frequently occurring physical and mental health problems **[WHO]**. Thus, the phenomena of migration, which encompasses emotional, social, and economic upheaval, may have a negative impact on migrants' quality of life and, as a result, on their general health and dental health[1]**.** The migrant community prioritises social considerations over the need to care for their overall health, which makes them more likely to develop dental disorders and other health problems**.** Additionally, due to the lower educational attainment of the migrant community, a greater prevalence of dental caries and a higher level of CPI (Community Periodontal Index) were linked to that group [2]**.**

Climate Change Inducing Migration

Currently, it is believed that climate change has a greater driving impact on migration than the economies and political situations in the countries of origin [3]**.**

Climate drivers are of two types

1. Climate process
2. Climate events

Climate processes

Include slow-moving effects like sea level rise, salinization of farmland, desertification, escalating water scarcity, and food poverty. It is undeniable that sea level rise makes some coastal regions and small island states inhabitable. On the other side.

Climate Events

Are sudden, severe dangers such monsoon floods, glacial lake outburst floods, storms, hurricanes, and typhoons. These significantly speed up and dramatically evict people from their land.

Climate change is already affecting migration patterns around the world and will increasingly continue to do so in the future - The UN projects 200 million climate refugees by 2050

Migration and Oral Health

Migration history is closely linked to poor oral health outcomes, such as a higher incidence of untreated caries, severe periodontitis, and a higher rate of missing teeth, all of which are connected to a negative quality of life in terms of oral health[3]**.** Due to lack of employment opportunities, disparities in oral health beliefs and practices, difficulty understanding the spoken language of the host population, difficulty meeting their needs, and difficulty comprehending oral health education in the migrated areas, migrants will have difficulty accessing dental care services. Oral hygiene practices were relatively poor among migrants compared to the host population. The most frequently cited causes were that immigrant parents were unable to watch over their children while they brushed their teeth, that they overindulged in giving their kids sugary foods, that they attended fewer meetings where dental information was presented, and that they had little

knowledge of or belief in the oral health care system in the host country[4]. Also, it has been generally observed that migrants from low- and middle-income countries are more likely to have poor oral health when they move to high-income countries like the USA, Canada, Australia, and Europe. This has been shown by a systemic review on inadequate oral health knowledge, attitudes, and practises among South Asian migrants, which is mainly influenced by culture, social norms, and religion**[5].**

Migrants' oral health status, may be impacted by situations such as difficulty understanding spoken language, various cultural customs, work issues, low socioeconomic level, and lack of medical insurance[6].Most studies found that compared to the host community, migrants had a greater propensity for emergency treatment and less regular visits to private dentists[7]. Aside from that, migrants frequently reside in underserved communities with low physician-to-population ratios[8]. As a result, the migratory population is prevented from using dental services when they are in need, which also causes them to be less interested in preventive care than in emergency treatments. According to certain investigations, racial and ethnic migrant communities have significant disparities in the healthcare system, including access to dental care, utilisation of services, and unmet dental care needs, particularly among adolescents**[9].**

Acculturation and Oral Health among Migrants

When immigrants are exposed to the new cultural beliefs and practices in the host country, they are prone to cultural shifts, which makes it difficult for them to follow the cultural norms of the host country in terms of oral health as well. However, when immigrants adapt to the new cultural standards, they become part of the acculturated population. Acculturation reveals two extreme potentials in migrant oral health, studies showed that People with high levels of acculturation had less tooth decay and periodontal disease overall, additionally, positive behaviour adaptation and accessibility to OH care providers were directly correlated with high acculturation status [10,11]. On the other hand, acculturation can also promote some adverse behavioral changes that may lead to poor oral health such as adapting to a cariogenic diet among immigrants [11]. According to a study that examined the disparities in acculturation levels among migrants**,** low acculturated immigrants frequently experience lower dental outcomes than their more acculturated peers because they may not know what to anticipate from healthcare facilities in their new country**[12].**

Oral Healthcare Utilization among Migrants

Among migrants the oral care utilization patterns needs to be addressed in three different ways: From the patient level, from the provider aspect and from the system aspect. Culturally specific perceptions and beliefs about oral health and illness, oral health literacy levels (including the capacity to locate, read, and comprehend oral health information), and lower awareness of the host country's current oral health care system are significant obstacles that need to be looked into from the perspective of the patient.A culturally sensitive approach is necessary both at the provider and system levels when dealing with the oral health issues that affect migrants, as well as when creating preventive programmers or giving them dental care[13].

By increasing the number of public community dental clinics, it is possible to improve minority migrant groups' access to dental care. This will help address differences in cultural attitudes

toward oral health behaviour and encourage the use of dental services. In order to bridge the cultural gap between patients and dentists, community health clinics can employ locals who are well-equipped to recognise and understand the various cultural traditions in the community [14]. The study on migrant moms' experiences with dental services found that emergency care rather than preventive oral health care is the main reason why migrant women and their children visit dental services. Lack of understanding of where and how to acquire such services, expense, language obstacles, waiting lists, and unpleasant dental experiences were some of the impediments to timely access to dental care that were thought to exist [15]. Also, dental staff rarely struck up a conversation with patients because of the language barrier and minimal/no enquiries that would have opened up a discussion concerning the patients' current oral health issues were asked of the patients [15].

Sociodemographic Factors and Migrants' Oral Health

An analysis of South Asian migrants' beliefs about oral health revealed that these migrants' poor oral health and access issues to dental care are related to their sociodemographic and socioeconomic traits, including low income, low education, language barriers, religious affiliation, and cultural practices from their country of origin [16]. Additionally, among South Asian migrants, gender, religion, and cultural customs have a significant impact on oral health literacy and prevention practices [16]. According to a comparative study on the oral health problems affecting migrants, there is a lack of good oral health among them as well as a higher prevalence of caries, periodontal disorders, and poor oral hygiene [17]. These characteristics strongly indicate that oral health education programmer and prevention techniques be conducted in accordance with the capabilities and individual attitudes of the immigrant and ethnic minority, taking their beliefs and disbeliefs into account **[18]**. According to a study that looked at the factors preventing migrants from using dental treatment, among migrant women, a lack of trust in the dentist and difficulties communicating their needs effectively were the two biggest obstacles to getting the care they needed **[19]**. In some countries, legal entitlement is frequently a barrier to treatment for refugees and asylum seekers, but organizational factors and a lack of provider experience also affect their access to care **[20]**.

Improving Oral Health Utilization among Migrants

Low oral health literacy is a significant contributor to the disparity in oral health care utilisation across patients, despite the fact that there are many other factors at play. We can greatly increase their literacy about dental care by employing simpler educational tactics including education videos, oral care pamphlets, and public health initiatives, especially those delivered in their own local community language and staffed by their own local community members. From a dental professional's perspective regardless of the patient's ethnic or cultural backgrounds, effective communication and empathy skills serve to create successful professional-patient interactions in the sector of oral health[21]. In order to effectively treat their patients and remove any potential barriers to care, oral health professionals working in multicultural settings must be aware of the role that culture plays in interactions with patients. They also need to be able to effectively communicate with

members of culturally and linguistically diverse communities and understand how cultural norms affect health behaviors [21]. To bridge the knowledge gap between their existing knowledge and practice, refugees need to be better informed about the connection between oral and general health as well as the significance of routine preventive dental exams even when they are pain-free or experiencing acute problems [22]. Lay communicators were better able to explain oral health words and concepts to participants in a way that they could grasp. Additionally, having trained lay representatives strengthens the community's ability to deliver future trainings at a reasonable cost [23].

Conclusion

Migration induced oral health quality has been a significant concern. Immigrants from the low socio-economic background are frequently more prone to poor dental health. Employment of local community staffs and lay educators, migrant friendly legislation actions and medical insurance may be useful in enhancing the immigrants access to dental care. Thus, in addition to emergency care, receiving preventive dental treatment will also improve.

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