



Assessing the Health Risks and Well-being of Indian Migrants in GCC Countries: A Systematic Literature Review

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ABSTRACT :

The objective is to assess the well-being of Indian migrants in Gulf Cooperation Council (GCC) nations, identify the primary factors contributing to their health issues, and propose recommendations based on the study's outcomes. The literature review encompassed publications on the health status of Indian migrants in GCC countries found in electronic databases such as Scopus, NCBI PubMed, MEDLINE, Anthropology Plus, Embase, APA PsycInfo, SOCIndex, and CINAHL, covering the period from inception to April 10, 2023. Data extraction was conducted using a standardized form, and the study compared the percentage of reported health issues across different countries. Among the 18 studies meeting inclusion criteria, 20.2% addressed the health status of Indian migrants in the United Arab Emirates (UAE), 17.9% focused on Saudi Arabia, and 15.5% covered the remaining GCC countries (Bahrain, Kuwait, Oman, and Qatar). The scientific literature on the health status of Indian migrants, as published by researchers, is limited and lacks depth. These findings should alert researchers in the field of public health and prompt both the governments of India and the GCC nations to formulate policies ensuring the well-being of migrants.

Keywords: GCC countries, migrant workers, Indians, health issues, diseases

1. INTRODUCTION

The Gulf Cooperation Council (GCC) is a coalition of six Arab nations, namely the United Arab Emirates (UAE), Saudi Arabia, Oman, Kuwait, Bahrain, and Qatar. These GCC states rank among the world's leading oil-producing countries. The presence of abundant crude oil in these nations has facilitated a significant transformation from rural to modern urban communities. Rapid urbanization and robust economic development in these countries have led to substantial population growth. Geographical similarities contribute to shared cultural, religious, social, economic, and political backgrounds across all these nations [1]. (Hickup *et al.*, 2016).

The primary goal of the union of Arab countries was to foster regional development through the unity, coordination, and integration of the six nations [2]. (Cooperation council for the Arab states of the gulf, 2012). Additionally, the GCC countries share objectives aimed at creating uniform regulations in areas such as social, religious, economic, and health affairs [3]. (Alzahrani, 2020). In the past decade, the GCC nations have experienced significant benefits from their abundant reserves of oil and natural gas, leading to their transformation into ultramodern metropolises boasting the world's highest GDP per capita [4,5]. (Kronfol *et al.*, 2013; Shihab, 2001). Consequently, these countries have emerged as some of the most modern and industrialized nations globally, attracting a substantial number of tourists from around the world.

The swift urbanization and industrial development in the Gulf Cooperation Council (GCC) countries have led to a substantial influx of millions of individuals migrating from their countries of origin in pursuit of improved employment opportunities and fair wages [6]. (de Diego-Cordero *et al.*, 2021). Typically, these migrants find themselves at the lower end of the economic hierarchy, requiring strenuous labor [7]. (Banerjee, 2022). In some instances, migrants engage in precarious employment without formal contracts ensuring regular pay, leading to heightened uncertainty and the risk of job loss, compelling them to accept positions with inherent risks [8]. (Moyce & Schenker, 2018). Research indicates that individuals facing challenges such as physical and verbal abuse, sexual assault, exploitation, mistreatment, and violations of labor laws at their destination are significantly more prone to experiencing physical and mental health issues. The unpredictable nature of migration introduces unique health-related challenges, and migrants encounter difficulties accessing healthcare facilities due to factors such as bias, linguistic and cultural barriers, low socioeconomic status, and ambiguous legal standing [9]. (Zelege *et al.*, 2011).

The migration process is fraught with numerous challenges, encompassing alterations in diet, living conditions in the Gulf Cooperation Council (GCC) country, financial constraints, working conditions, accessibility to affordable healthcare, accommodation in the destination country, and limited physical activity [10,11]. (International organization for migration, 2008 & Davies *et al.*, 2011). These challenges significantly heighten health vulnerabilities among migrants in the new environment. Beyond the mentioned obstacles, the absence of robust social networks plays a crucial role in migrant health, often leading to mental health disorders and depression [12,13]. (Hargreaves *et al.*, 2019 & Hasan *et al.*, 2021). Research indicates a prevalence of work-related injuries and suicide among migrants in GCC countries [14]. (World health organization, 2004). Furthermore, there is an observed increase in the

burden of non-communicable diseases, including diabetes, heart disease, cancer, and high blood pressure, among migrants in these countries [15]. (Petreski, 2016). Poor working conditions and the lifestyle in the destination country can exert a substantial impact on the health of migrants, occasionally prompting them to return to their home countries. The precarious nature of their work, coupled with the elevated risk of job loss and the lack of social networks, renders migrants more susceptible to health issues such as diabetes, cardiovascular diseases, obesity, smoking-related ailments, cancer, hypertension, and psychiatric disorders compared to non-migrants [16]. (Quandt *et al.*, 2013).

India maintains a robust economic relationship with the Gulf Cooperation Council (GCC) countries, characterized by significant levels of trade and investments [17]. (Mitra & Kasliwal, 2020). Currently, the expatriate community in the GCC nations has surged to approximately 9.3 million, surpassing the number of nationals. Among these expatriates, Indians constitute the largest group. The Indian expatriate population has played a pivotal role in the economic development of the GCC countries and serves as a major source of remittances to their home country [18]. (United nations population division, 2023). About 30 percent of the expatriate population consists of skilled workers, with the majority being blue-collar workers. However, the COVID-19 outbreak has presented considerable challenges to migrants due to the employment system in the GCC nations [19]. (Supporting Indian workers in the gulf, 2020). The pandemic led to the closure of numerous businesses and the enforcement of lockdown measures, causing widespread panic and financial hardships that have taken a toll on the psychological well-being of migrants. In response to these challenges, some GCC countries have implemented positive measures, including a wage protection system and various anti-discrimination regulations [20]. (Pricewaterhousecoopers, 2023).

Ensuring the health of migrants is crucial and should be prioritized, regardless of their race, age, or income level. Many migrants face challenges in accessing healthcare due to factors such as bias, linguistic and cultural barriers, low socioeconomic status, and uncertain legal standing [8]. (Moyce & Schenker, 2018). Therefore, the primary objective of this study is to review publications addressing the health issues of Indian migrants in the Gulf Cooperation Council (GCC) countries and provide recommendations based on the study's findings. To accomplish this, the conventional Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) is employed to systematically identify and analyze relevant sources and documents. The study sourced documents from databases including Scopus, NCBI PubMed, MEDLINE, Anthropology Plus, Embase, APA PsycInfo, SOCIndex, and CINAHL for comprehensive analysis. The primary contributions of this study are outlined as follows: identifying studies discussing the health status of Indian migrants in GCC countries, analyzing the factors contributing to the migrants' suboptimal health status, and proposing potential solutions to enhance the health status of Indian expatriates in the GCC countries.

2. METHODS

This study employs the established Preferred Reporting Items for Systematic Review and Meta-Analysis (PRISMA) methodology to systematically identify relevant sources and documents for the scoping process. The study is structured into distinct phases that collectively contribute to the comprehensive findings and recommendations derived from state-of-the-art publications. These phases encompass the identification phase, screening phase, eligibility phase, and inclusion phase. Each phase plays a crucial role in the systematic and rigorous approach employed to gather, evaluate, and incorporate pertinent information into the study's overarching analysis and recommendations.

2.1 Identification Phase

During this phase, the selection of electronic databases housing indexed articles is a critical step for conducting article searches and extractions. A range of electronic databases, including Scopus, NCBI PubMed, MEDLINE, Anthropology Plus, Embase, APA PsycInfo, SOCIndex, and CINAHL, were chosen for the search process. To identify pertinent studies for inclusion in this review, search strings were formulated to explore the aforementioned databases. Various search strategies were developed, such as "Indian Health Status," "Indian Migrants in GCC Countries," "Indian Expatriates in GCC Countries," "Gulf Cooperation Council (GCC)," "Challenges of Indian Expatriates in GCC," and "Indian Migrant Workers in GCC." Additionally, other sources were explored to gather a collection of relevant studies. The search spanned from the inception of the databases to April 10, 2023, and the reference lists of the identified articles were compiled for subsequent screening and potential inclusion in the analysis list.

2.2 Inclusion and exclusion criteria

The criteria for the inclusion of records in the analysis are outlined as follows: i) All articles published in the selected electronic databases (Scopus, NCBI PubMed, MEDLINE, Anthropology Plus, Embase, APA PsycInfo, SOCIndex, CINAHL, and other sources) from their inception to April 2023. ii) Studies focused on Indian migrants residing in any of the Gulf Cooperation Council (GCC) countries or Indian migrants who returned to their country of origin due to health challenges or economic factors affecting their health and well-being in the GCC countries. iii) Studies conducted on Indian migrants in GCC countries or those who returned during the COVID-19 outbreak.

Exclusion criteria encompass: i) Studies that specifically address migrants from other Asian countries in the Gulf Cooperation Council (GCC) countries. ii) Studies that concentrate on Indian migrants in countries outside the GCC, such as Spain, the United Kingdom, the United States of America, Canada, France, Germany, and other nations with Indian migrant populations.

2.3 Screening Phase

During this phase, the screened records undergo a thorough evaluation based on the article title, abstract, and full text to eliminate duplicates and studies that are not relevant. The initial results from the databases and other sources are scrutinized by reviewing titles and identifying duplicate articles, followed by the removal of irrelevant articles and those not meeting the inclusion criteria from the reference list. After a second screening to determine eligibility, the titles and abstracts of articles deemed eligible for inclusion are selected for a more comprehensive reading of the full text. Studies that do not align

with the study scope or inclusion criteria are excluded after further screening of the full-text articles. This meticulous process ensures that only relevant and eligible studies are included in the subsequent analysis.

2.4 Data Extraction

Data extraction and analysis were conducted using the final list of articles that met the inclusion and exclusion criteria. A structured extraction table was devised to organize the extracted data based on grouping strategies. The information was categorized into the following groups: the authors' names and publication years; the study's publication design; the specific GCC country where the Indian migrants under study reside; the nature of health issues or challenges experienced by the migrants; and the causes or factors contributing to these health issues. Additionally, another table was created to establish correlations between the GCC countries and the health issues encountered by Indian migrants. This index aids in reviewing the prevalence of health issues among Indian migrants in each of the six GCC countries.

3. RESULTS

From the search results, a total of 2,769 articles were initially identified from the chosen electronic databases (Scopus, NCBI PubMed, MEDLINE, Anthropology Plus, Embase, APA PsycInfo, SOCIndex, and CINAHL). After thorough screening, which involved the removal of duplicates and articles with titles outside the study scope, 2,120 articles were excluded from the reference list. Subsequent screening based on abstract and full text led to the exclusion of 611 articles during the abstract screening phase and an additional 20 articles during the full text screening. Following the rigorous application of inclusion and exclusion criteria, a total of 18 articles were deemed eligible and included in the final analysis (Figure 1).

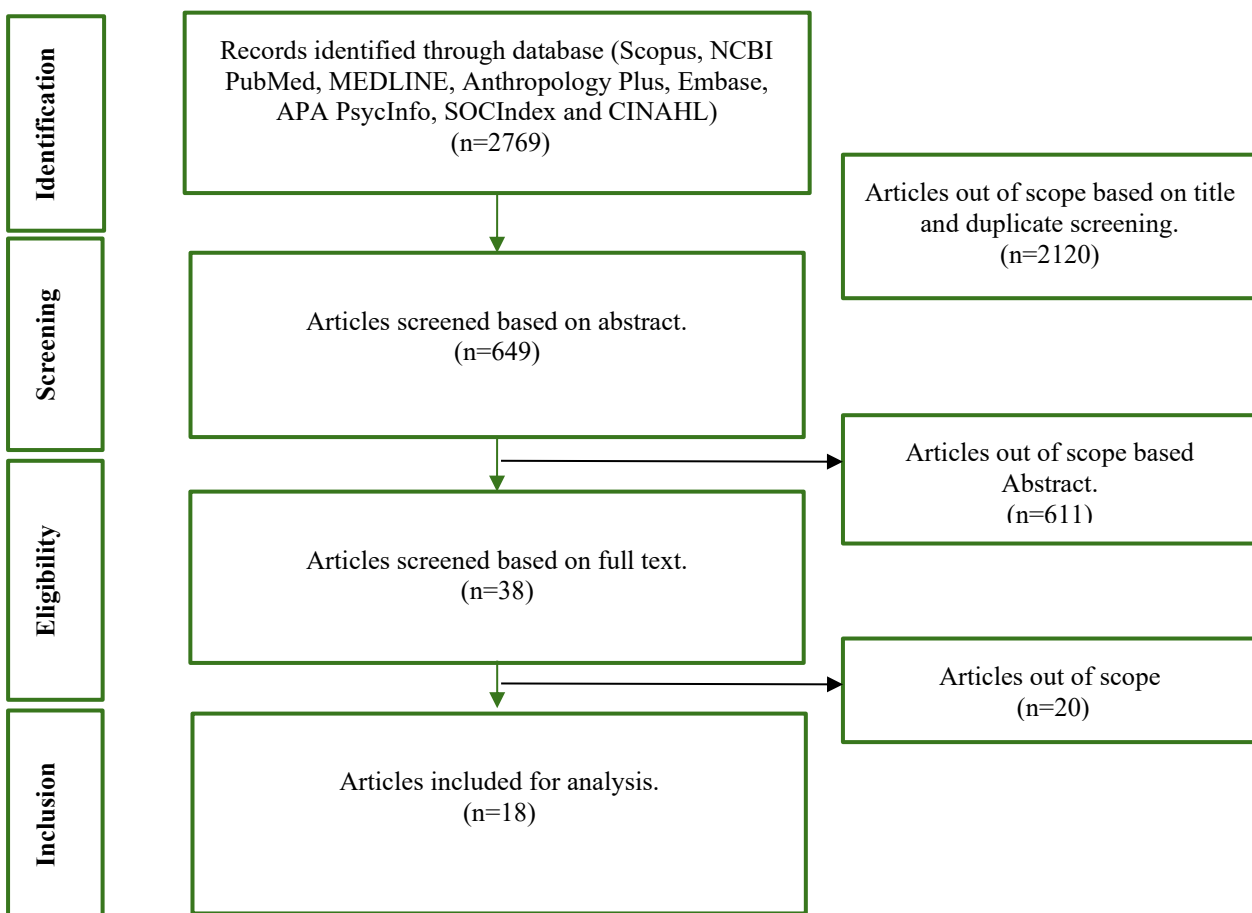


Figure 1. Flowchart of the article identification process

Table 1. Summary of the health status of Indian migrants in Gulf Cooperation Council (GCC) countries

References	Publication Design/Population	GCC Country	Health Issue	Causes
Banerjee, (2022) [7]	Cross Sectional/ n=330 Indian migrants interviewed	Saudi Arabia, Kuwait, Oman, Qatar and Bahrain	Physical Injury	Age, Worst living and working condition.

Khan & Arokkiaraj, (2021) [21]	Review/ n= 65 reverse Indian migrants	Saudi Arabia, Kuwait, Oman, Qatar, UAE, Bahrain	COVID-19	Lack of sanitary shelter, lack of isolation and inadequate ill-treatment facilities.
David <i>et al.</i> , (2023) [22]	Cross sectional/ n= 25 participants	United Arab Emirates	Breast Cancer	Old age
Neethu & Helan, (2021) [23]	Comparative cross sectional/ n= 384 returned Indian migrants	Saudi Arabia, Kuwait, Oman, Qatar, UAE, Bahrain	Cancer, Heart disease, asthma and allergies	Bad climate, chemical pollution, bad lifestyle and food habits, Job and family related stress and smoking and drinking habit.
Raza, (2021) [24]	Cross sectional/ n=12 wives of Indian migrants	Saudi Arabia, Kuwait, Oman, Qatar, UAE, Bahrain	Stress, Psychological pressure, reproductive issues and fever	Loneliness, fear and insecurity due to absence of husband who lives in GCC country.
Rafiuddin & Kalpana, (2022) [25]	Cross sectional/ n=410 participants	Saudi Arabia and United Arab Emirates (UAE)	Difficulty concentrating, digestion issues, tight feeling in chest, High blood pressure, cardiovascular disease, Insomnia, diabetes, metabolic arthritis, and hypertension	Poverty, poor access to health facilities and unemployment.
Ranjan & Bisht, (2020) [26]	Review/ n=15 articles	Saudi Arabia, Kuwait, Oman, Qatar, UAE, Bahrain	COVID-19	Hash working condition, poverty, limited access to health facilities and living condition.
Ansari, (2020) [27]	Cross sectional/ n= 100 Indian migrants	Saudi Arabia, Kuwait, Oman, Qatar, UAE, Bahrain	General health issues	Hash working and living condition, lack of basic amenities like good drinking water, sanitation facilities and access to health facilities.
Ansari & Rahman, (2021) [28]	Cross sectional/ n= 100 indian migrants	Saudi Arabia, Kuwait, Oman, Qatar, UAE, Bahrain	COVID-19 and Other related health conditions	Poor working conditions, hash working condition, lack of access to health facilities.
Khan <i>et al.</i> , (2021) [29]	Cross sectional/ n=180 migrant workers	Kingdom of Saudi Arabia	Anxiety, depression and stress	The outbreak of COVID-19.
Sivadas, (2021) [30]	Cross sectional/ n=50 migrants from Kerela	Saudi Arabia, Kuwait, Oman, Qatar, UAE, Bahrain	COVID-19	The outbreak of COVID-19, poor medical assistance and lack of proper medical treatment.
Shahab, (2021) [31]	Review/ 21 articles	Saudi Arabia, Kuwait, Oman, Qatar, UAE, Bahrain	Stress	Overwork, harassment and violation of rights, work without holidays, lack of health care and poor accommodations.

Fazli & Faridi, (2022) [32]	Cross sectional/ n=62 indian expatriates	Saudi Arabia, Kuwait, Oman, Qatar, UAE, Bahrain	Mental and well-being	The outbreak of COVID-19
Pallathadka, (2020) [33]	Cross sectional/ n=848 respondents	United Arab Emirates (UAE)	Depression, stress, and anxiety.	Isolation, workplace distress, and worries.
Kumar <i>et al.</i> , (2020) [34]	Cross sectional/ n=98 migrant laborers	GCC Countries	Depression and Anxiety	COVID-19 outbreak
Mohammed & Kosalram, (2022) [35]	Cross sectional/ n= 410 migrants	Saudi Arabia, Kuwait, Oman, Qatar, UAE, Bahrain	Psychological stress, physical stress, diabetes, cardiovascular, hypertension and metabolic arthritis	Overwork, difficulty in their task.
Khan & Arokkiaraj, (2021) [21]	Cross sectional/ n=65 reverse migrants	Saudi Arabia, Kuwait, Oman, Qatar, UAE, Bahrain	COVID-19	COVID-19 outbreak, place to live with food, water, and poor access to health facilities.
Zachariah, (2004) [36]	Cross sectional/ n= 12 respondents	United Arab Emirates	Anxiety	Global crises

Table 2. Demographic Issues of the Indian Migrants in GCC Countries

GCC Country	Number of Health Issues reported in reviewed articles	Percentage
Bahrain	13	15.5%
Kuwait	13	15.5%
Oman	13	15.5%
Qatar	13	15.5%
Saudi Arabia	15	17.9%
United Arab Emirates (UAE)	17	20.2%

Table 1 presents a synopsis of the health condition of Indian migrants in GCC nations along with the factors contributing to the health difficulties encountered by these migrants. Table 2 outlines demographic issues concerning Indian migrants in the Gulf Cooperation Council (GCC) countries. A comparative analysis of the percentage of publications addressing health challenges faced by Indian migrants reveals that the United Arab Emirates (UAE) garnered the highest level of attention from researchers. The Kingdom of Saudi Arabia, being the second GCC country with the largest Indian migrant population, follows as the second-largest percentage of concern for researchers. Meanwhile, other GCC countries (Bahrain, Kuwait, Oman, and Qatar) exhibit similar percentages of concern among researchers.

4. DISCUSSION

From the overview of the health conditions of Indian migrants in the Gulf Cooperation Council (GCC) countries and the factors contributing to their health challenges, as outlined in Table 1, it is evident that these migrants grapple with various health issues. These include physical injuries, COVID-19, cancer, heart disease, asthma, allergies, psychological stress, physical stress, diabetes, cardiovascular disease, hypertension, stress, anxiety, metabolic arthritis, and other associated health concerns. The distribution of these health issues as a percentage is illustrated in Figure 2 below.

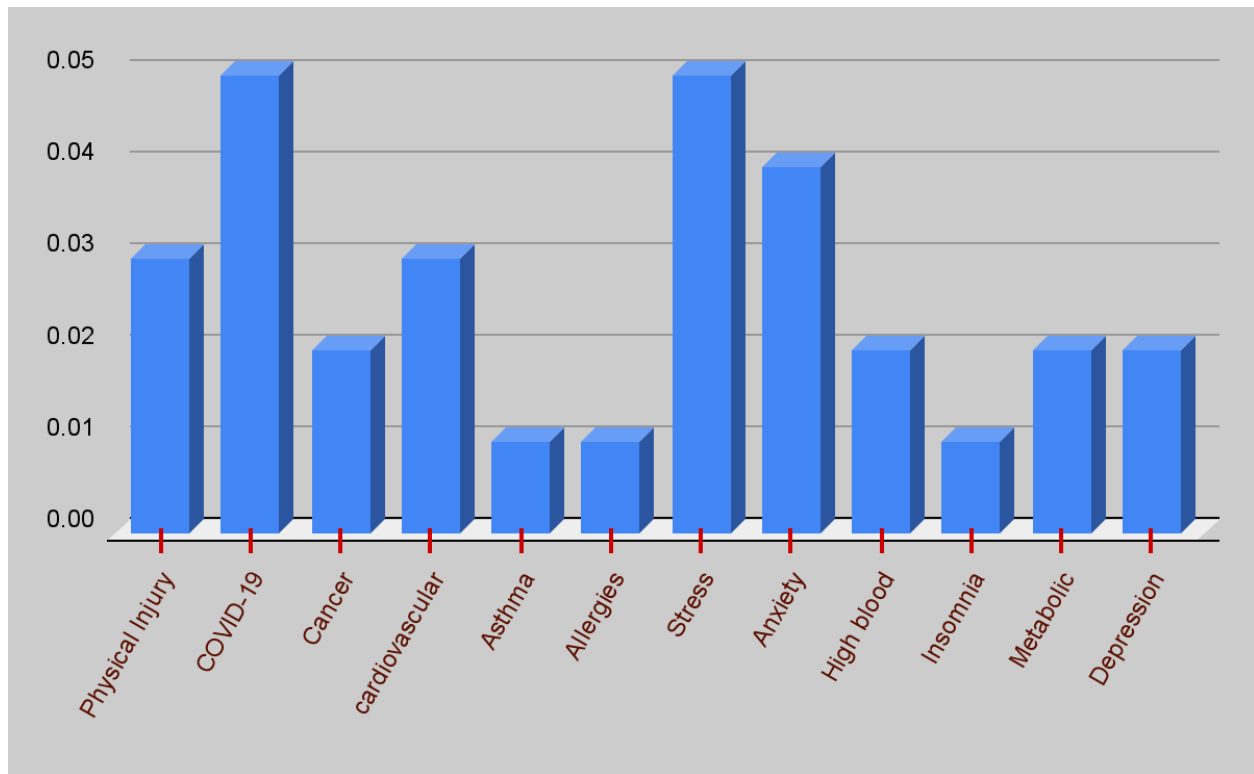


Figure 2. Distribution of health status of Indian migrants in GCC countries

According to the figure 2, COVID-19 and stress emerge as the predominant health issues reported in the publications analyzed in this study. The surge of the COVID-19 virus, beginning in late 2019 and impacting over 200 countries in 2020, has posed a significant global health challenge. This virus, with its ever-evolving variants, has affected millions of people worldwide. India, home to one of the largest international migrant communities, experienced substantial impacts nationally and internationally. The vulnerability of the Indian community in GCC countries was exacerbated by the nature of their work and living conditions [6, 21, 26, 30]. The study's findings reveal that Indian migrants in GCC countries endure challenging working and living conditions, residing at the bottom of the economic hierarchy. Engaged in precarious jobs with high risks and meager salaries, these migrant workers often struggle to afford a basic standard of living. Many reside in company-provided camps or share cramped accommodations in dormitories. The crowded living conditions in these camps and accommodations have heightened the susceptibility of migrants to the novel COVID-19 virus. Furthermore, the study indicates that migrant workers face obstacles in accessing healthcare facilities, attributed to issues such as discrimination, language barriers, and economic hardships [6].

Conversely, Indian migrants grapple with significant stress and anxiety stemming from the repercussions of the COVID-19 outbreak, challenges in their tasks, global crises, and excessive workloads at their workplaces [21, 30]. This stress is particularly heightened by the adoption of lockdown strategies by numerous countries, including the Gulf Cooperation Council (GCC) nations, to curb the spread of the novel COVID-19 virus. This approach, while effective in controlling the virus, has had substantial economic consequences surpassing those of previous global economic downturns. The lockdown measures resulted in widespread job loss among migrant workers, with some experiencing salary cuts throughout the duration. As the economic crisis induced by COVID-19 persists, migrants confront profound financial difficulties, leading to feelings of depression [34]. Those who received reduced salaries during the lockdown period expressed anxiety about potentially facing the same plight as their counterparts who lost their jobs and salaries due to the economic crisis triggered by COVID-19. In addition to economic challenges resulting from the lockdown, certain migrant workers encounter difficulties related to living conditions, work environments, and dietary factors, contributing to heightened levels of stress and anxiety [6].

Migrants in the GCC countries frequently find themselves in precarious, strenuous, and unhygienic employment, necessitating extended work hours under challenging conditions for comparatively lower wages [6]. This strenuous workload imposes considerable physical stress on the workers and contributes to a lack of social connections. The absence of robust social networks among migrant workers can result in psychological stress and depression. The substandard lifestyle and working conditions further exacerbate the overall impact on the health status of these migrants.

Certain Indian migrants employed in the GCC countries find themselves working in industries dealing with heavy materials, toxic chemicals, and precarious objects, exposing them to potential dangers. Unfortunately, some of these workers experience physical injuries arising from accidental contact with hazardous chemicals or dangerous objects in their workplaces. The substandard lifestyle and working conditions of these migrants contribute to a lack of access to adequate health facilities, amplifying their health challenges. Many of them, compelled to work long hours, confront significant physical stress and depression. Additionally, some individuals develop allergies when exposed to the chemical materials utilized in the industries where they are employed.

Among Indian migrants in GCC countries, a spectrum of health challenges exists. Some grapple with anxiety, stress, and depression, while others contend with more severe conditions such as cardiovascular diseases, hypertension, insomnia, asthma, cancer, and metabolic issues. The study's findings attribute instances of cancer, asthma, and insomnia among migrants to factors such as their advanced age, the adverse climate in GCC countries, and exposure to

chemical pollution from industrial activities. Furthermore, inadequate lifestyle, unemployment, and challenging working conditions significantly contribute to the development of hypertension among migrant populations.

This study reveals that a significant majority of migrants face a multitude of health challenges, encompassing physical injury, COVID-19, cancer, heart disease, asthma, allergies, psychological stress, physical stress, diabetes, cardiovascular disease, hypertension, stress, anxiety, metabolic arthritis, and other related health issues [29, 31,33]. The root causes of these health issues are identified as the COVID-19 outbreak, demanding working conditions, poverty, suboptimal lifestyle, exposure to toxic chemicals in the workplace, inadequate accommodations, a lack of social networks, and limited access to health facilities [28,29]. Notably, certain health issues seem to act as catalysts for additional complications, rendering migrants more vulnerable to other health-related problems. Reports from the publications included in this study indicate that a considerable number of migrants are repatriated to their home country due to the expiration of their contracts and illnesses they acquire during their stay in the Gulf Cooperation Council (GCC) countries.

The study uncovered a notable gap in research concerning the health status of Indian migrants in the Gulf Cooperation Council (GCC) countries, despite the substantial size of the Indian migrant community and their significant contributions to the economic development of these nations. Given this gap, it is recommended that researchers conduct in-depth investigations into the health status of Indian migrants in GCC countries, treating each country as a distinct entity. Such focused research would unveil specific factors associated with each country, facilitating targeted interventions by both the sending and receiving governments to safeguard the well-being of the migrant population.

5. CONCLUSION

India stands as one of the leading countries of origin for global migrants, with a substantial 70% of this migrant population residing in the Gulf Cooperation Council (GCC) countries. However, a large portion of the migrant community finds itself at the lower end of the socio-economic hierarchy in these nations, engaging in precarious, low-paying jobs that expose them to various health challenges. The findings underscore that Indian migrants in the GCC countries suffer a range of health issues, including physical injuries, COVID-19, cancer, heart disease, asthma, allergies, psychological stress, physical stress, diabetes, cardiovascular disease, hypertension, stress, anxiety, metabolic arthritis, and other related health concerns. These health challenges are attributed to several factors such as the COVID-19 outbreak, challenging working conditions, poverty, suboptimal lifestyle, exposure to toxic chemicals in the workplace, inadequate accommodations, limited social networks, and restricted access to healthcare facilities. Importantly, certain health issues tend to cascade, rendering migrants more susceptible to additional complications.

Among the identified health challenges, stress, anxiety, and physical injuries emerge as the top three issues faced by migrants, apart from the decade-spanning occurrences of the COVID-19 outbreak. The observation suggests that these health problems stem from the demanding work environment, migrants' exposure to hazardous chemicals and heavy materials, prolonged working hours, and the persistent fear of job loss. The study not only sheds light on the prevalent health issues but also emphasizes the urgent need for comprehensive research and intervention strategies to safeguard the well-being of Indian migrants in the GCC countries.

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