



Building Healthier Societies Through Sports & Physical Activity

The G20's Policy Response to Emerging Health Issues

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Abstract: Health issues like non-communicable diseases (NCDs), obesity, mental health problems and sedentary livelihood of a majority of population in the world often pose a massive threat to the global health and economy. In order to address this emerging issue, G20 nations have been found to encourage the inclusion of cost-friendly approaches like physical activities and sports in the daily lives of people to foster the economy and well-being of their population. This study primarily focuses on comparison of health issues of different types and strategies or health policies undertaken by G20 nations in order to incorporate physical activity and sports in educational institutions and public health sectors.

Several barriers pertaining to the promotion of physical health like rapid urbanization, limited accessibility of people to sports facilities alongside cultural and socio-economic issues have been discussed in great detail with emphasis on certain health policies that have been successfully implemented. However, there are still a few challenges faced during policy administration in the nations which have been brought to attention simultaneously and specific recommendations are suggested to overcome them.

This paper strongly supports the preparation of proper health policy frameworks for effective global health outcome. Promotion of healthy living standard in people is facilitated by the inclusion of physical activity and sports in school curriculum and at workplace with development and easy accessibility of public infrastructure and sports facilities alongside raising public awareness through discussions in G20 forums with an aim to provide a sustainable solution to emerging health issues.

Index Terms: Healthy lifestyle, economy, well-being, policies, sustainability

1. Introduction

Serious health issues like non-communicable diseases (NCDs), obesity and mental health problems are prevalent in the global population in today's world. It has been observed that almost 70% of the young population in several countries worldwide do not show high physical activity levels (Aubert et. al, 2018). As a result of which, scientists have reported a sharp rise in cases of chronic metabolic disorders like diabetes mellitus in global population caused due to low physical activity (Lin et. al, 2020). WHO reported that physical inactivity led to 30% of ischemic heart disease, 21-25% of breast and colon cancer and 27% of diabetes in populations worldwide (WHO, 2009). Alongside, an alarming report by WHO mentions that mental health conditions like depression and suicidal tendencies accounts for 16% of the diseases and are prevalent mostly among young children and adolescents (WHO, 2020). However, physical activities have played an effective role in lowering mental health problems like major depressive disorders (Babyak et. al, 2000). It has been observed that physical activity has positive remedial values in patients suffering from chronic diseases often occurred due to physical inactivity (Fletcher et. al, 2018). In fact, inclusion of physical education and sports from a very young age in school curriculum have shown beneficial results to cope with several physiological as well as psychological disorders (Rasberry et. al, 2011). Several countries have

shown their concern towards these emerging global health issues and among them G20 nations have taken some meaningful steps to address the challenges concerned. Group of 20 or G20 is an intergovernmental organization, representing 19 countries along with European and African Union, concerned with addressing issues related to global health, finance, etc., through discussion with nation heads in summits (*Fues et. al, 2014*). This paper focusses on the importance of physical activity and sports in addressing the emerging global health issues by the G20 nations.

1.1. The Importance of Physical Activity and Sports in Public Health

The World Health Organization (WHO) has reported non-communicable diseases like cancer, stroke, heart and pulmonary diseases as causes for 70% of the mortality cases in many G20 nations (*WHO, 2014*). They issued guidelines in recent times which emphasizes on the importance of inclusion of physical activities like aerobics and certain exercises that strengthens muscles, in the daily routine of people (*Bull et. al, 2020*). Sports enhances motor skills within individuals through social interaction and it has been observed that people who actively take part in sports activities are healthy as compared to others (*Holt et. al, 2017*). Evidences support that muscle-strengthening physical exercises increase cognitive potential of individuals (*Groot et al., 2016*). Physical activity mobilize the senescent T cells from the peripheral tissue in the body into the bloodstream. This in turn causes death of these senescent cells as a result of apoptosis, thereby providing a way to the replenishment of naïve T cells (*Samajdar et. al, 2023*). It has been reported that physical activities reduce the possibility of neurodegenerative disorders, side effects of cancer and metabolic syndromes in people alongside certain diseases like muscle atrophy and osteoporosis, especially in the elderly population (*Malm et. al, 2019*). Physical activity have positive impact on mental health issues like anxiety or stress-related depression (*Stubbs et. al, 2017*) often by increasing the secretion of certain signalling molecules and endorphins in the body (*Knöchel et. al, 2012*). Besides, involvement in physical exercises facilitates healthy aging of population (*Hamer et. al, 2014*).

1.2. G20 Nations: Present Health Trends and Challenges

1.2.1. Obesity

The G20 nations face numerous health related challenges due to obesity. A survey was conducted in America where almost 81% of their population supported the fact that obesity was a disease of concern in their nation and there is little knowledge about the source and available treatment facilities among common people, despite being aware of the consequences of the disease (*Rosenthal et. al, 2017*). In Saudi Arabia, obesity is prevalent in the nation, often associated with chronic diseases like lung diseases, rheumatoid arthritis, type 2 diabetes, hypertension and many more, posing a challenge to the treatment and healthcare facilities of the country (*Althumiri et. al, 2021*). Mexico has observed a spike in the morbidity cases due to non-communicable diseases like malignant tumours, liver and cardiovascular diseases as a result of high rates of obesity among their adult population (*Barquera et. al, 2020*).

1.2.2. Non-communicable diseases:

In Brazil, non-communicable diseases (NCDs) like cancer, cardiovascular and metabolic diseases, depression etc., occurring as a result of physical inactivity is a major threat to the Brazilian Unified Health System (SUS) as high rate of hospitalization of people takes place due to NCDs (*Prodel et. al, 2023*). A group of researchers performed a study in Dhanbad, India where they observed people possessing a low quality of life as a result of physical inactivity due to NCDs (*Kumar et. al, 2014*). Recently, data obtained from primary health care centres in Saudi Arabia showed that older adults with less physical activity were patients of NCDs (*Hakami et. al, 2023*). In Mexico, physical inactivity is considered to be one of the major reasons behind NCDs like type 2 diabetes and cardiovascular diseases (*Medina et. al, 2020*).

1.2.3. Aging Populations

The G20 countries have reported a rise in global aging population by 27% which has a possibility of increasing to 39% in years to come (*Dieleman et. al, 2019*). China has recorded an increase in the population of elderly people which is expected to impose major challenges to their public health status and most

importantly their healthcare system as a lower physical activity level is associated with an increase in chronic diseases in this aging population (*Li et. al, 2016*).

1.2.4. Mental Health Problems

A G20 nation, Japan, has observed a rise in common mental disorders (CMD) in recent times which compelled its population to increase the use of mental health services (*Nishi et. al, 2019*). A study performed in South Korea reported that sedentary habitat and physical inactivity were responsible for an increase in mental health issues like anxiety and depression among university students (*Lee et. al, 2018*). In Brazil, it was found individuals who did not engage in physical exercises, they showed increased symptoms of stress, anxiety and depression during COVID19 pandemic (*Silva et. al, 2020*). It was during pandemic that adolescent athletes, especially females, faced mental health issues pertaining to the closure of schools and sports cancellations in the US (*McGuine et. al, 2021*). A group of researchers examined the relationship between suicidal thoughts and physical activities in South Korean adolescents and found that physical activities in vigorous, moderate or even low amount can prevent suicidal thoughts and greatly encouraged the inclusion of physical activity in public health policies (*Cho, 2014*). It was found that urban India comprises of a population that suffer from serious mental health issues and physical activities can be only ways to address them. People who were involved into daily physical activities, showed decreased levels of depression, anxiety and stress related issues (*Beniwal, 2024*).

1.3. Challenges in Promoting Physical Activity:

1.3.1 Cultural and socio-economic barriers to participation in sports:

Women have been observed to participate less in sports in comparison to men due to several factors like socio-cultural, economic and knowledge barriers alongside a scarcity of proper sporting facilities and infrastructure (*Das et. al, 2023*). A study was performed in rural town of Australia where costly and inaccessible sports and transport facilities were a major reason for non-participation of children in sports (*Liew et. al, 2022*). In China, involvement of children and adolescents in physical activities is highly influenced by their socio-economic status and gender (*Ke et. al, 2022*). A low-income household survey study performed in South Africa reported more participation of residents in sports when they are provided with basic needs like food, housing and electricity (*Meyer et. al, 2016*).

1.3.2. Urbanization and sedentary lifestyles:

In China, progressive urbanization has resulted in sedentary lifestyle in individuals often associated with little or less involvement in physical activity thereby increasing the risk of obesity (*Monda et. al, 2007*). A study performed in India compared the prevalence of physical activities in individuals between rural and urban settings. An increased physical inactivity was observed in individuals residing in urban areas facing consequences of high rates of obesity (*Tripathy et. al, 2016*).

2. Policies and programs implemented to promote physical activity and sports:

With an increase in physical inactivity worldwide, few G20 nations have started designing policies to encourage physical activity and sports. The sports policy makers of Australia government have recently proposed a population-based “whole of sport ecosystem” lifespan model—the Physical Activity and Sport Participation (PASP) framework which is expected to play a more beneficial role in designing sports policies in future in comparison to their existing policy of “Sports 2030” (*Westerbeek et. al, 2021*). In Germany, "National Recommendations for Physical Activity" is prepared which provides comprehensive guidelines to encourage physical activity in people of different age groups and with medical complications (*Abu-Omar et. al, 2019*). Saudi Arabia made good progress in promoting physical activity and encouraging participation of women in sports through their sport policy, a part of Saudi government's Vision (Vision 2030), in the national Quality of Life Programme (*Albujulaya et. al, 2024*). The Chinese government has proposed a Healthy China 2030 plan as a part of The Agenda 2030 for facilitating sustainable development, physical activity and sports to prevent prevalence of non-communicable diseases (NCDs) especially in the elderly population (*Dai et. al, 2020*).

The "Fit India Movement" launched by the Indian government in August 2019 promotes mass awareness and recommends the incorporation of physical activity in daily lives in order to keep the occurrence of chronic diseases in control (*Mohanty et. al, 2024*). Recently, a group of researchers successfully initiated a physical activity model called "WALKU", being inspired by a global program by WHO called "LET'S BE ACTIVE", in order to reduce the stress conditions of medical practitioners in India. The implication of this initiative lowered the stress levels and improved their quality of life (*Gill et. al, 2020*). National Education Policy (NEP) 2020, a remarkable initiative by the government of India to facilitate interdisciplinary and comprehensive education, proposed to incorporate yoga education and mindfulness practices in educational institutions of India (*Singh et. al, 2024*).

To generate records related to the topic of health and physical activity of children and adolescents, Argentine Global Matrix 4.0 Report Card was prepared in Argentina which assigned grades to children based on some parameters like sedentary behaviours, organized physical activity and sports etc. However, more research is needed to be performed as grading was not done on all parameters (*Lobo et. al, 2023*). The government of Africa proposed The Policy Framework for the Sustainable Development of Sport in Africa with a purpose to encourage and promote active participation in sports. Culture, education, social and personal development, sports financing and participation were a major challenge which the government planned to target this policy (*Union et. al, 2008*).

3. Recommendations for G20 Nations

From the perspective of a youth individual, there are certain aspects which can be suggested to encourage more physical activities in population belonging to the G20 nations. The nations must ensure to strengthen the policy frameworks by implementation of national physical activities plans with proper goals and promotion of the involvement of physical activity in school curricula and workplace. Intense care should be taken at workplaces where sedentary lifestyle often causes detrimental health issues in employees. Breaks in within prolonged office hours should be encouraged and corporate wellness programs should be organized. It should be ensured that subsidies are provided to the population with less income in order to have full access to the sports equipment. Integration of physical education in schools, conduction of public health campaigns and administration of interventions like yoga to encourage physical activities in educational institutions.

On the other hand, the government must provide tax benefits to people who register for membership in gyms and disburse more funding to arrange fitness programs in communities. Infrastructural development like parks and other sports facilities should be enhanced in public areas. Urban planning should be done by development of cities with proper passages for walking and cycling. The healthcare professionals should prescribe physical activity, exercises and interventions like yoga as part of treatment plan. Utilization of the digital platforms to promote awareness related to engagement of mass in physical activities like wearing fitness trackers etc. Establishment of incentive or financial rewards for individuals engaging in sports events to encourage more participation. Execution of G20 forums consistently by the nations in order to discuss, monitor and evaluate the challenges and progress of all the G20 nations. G20 summits should be encouraged to incorporate the serious issues related to health concerns.

4. Future Research directions

Physical activity should be encouraged and promoted in G20 nations in order to face the challenges of the emerging health issues. As climate change is one of the main contributors of health issues nowadays, certain exercises are needed to be designed and practised to face the changing weather conditions. Often outdoor physical activities are compromised due to harsh environment, hence, a variety of indoor fitness programs like exercise at home or virtual workout classes etc. should be encouraged. Shaded outdoor gyms or sports facilities can prevent burn out from intense sun in summer season and sport facilities and infrastructure should be weather resistant. Besides, more AI-based digital tools should be designed where an individual can derive benefit from specifically tailored physical activities.

5. Conclusion

Emerging health challenges faced by the G20 nations can be addressed by facilitating the inclusion of physical activity and sports in the daily routine of individuals through association of urban planners, employers, government and the healthcare sector. It is very important for the G20 nations to prepare more of thorough, inclusive, and evidence-based policies and interventions to meet the challenges faced by each G20 nation in order to build a sustainable future. By the practise of collaboration and integration of innovations and technological advancements, G20 nations can lead the way in creating a healthier society of active individuals which contributes in global health quality and lower the economic pressure caused to a nation as a result of diseases caused due to physical inactivity.

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