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Barriers To Leisure-Time Physical Activity Among Young Students: A Cross-Sectional Survey

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ABSTRACT

Background of the study: Wellbeing is a crucial measure of health outcomes, especially for children. It is crucial to understand that regularly exercising is one of the best ways to live a healthy life and be fit, as stated in the 2020 guidelines of the World Health Organization. Such emphasis on the young population is imperative since exercise enhances their health and development canal. To identify the perceived barrier to leisure-time physical activity (LTPA) among 8-16-year-old school-going children.

Methodology: A cross-sectional study design opted to survey 378 participants selected by convenient, non-purposive sampling techniques, aged between 8 to 16 years, in the schools of Karachi after obtaining informed consent from guardians. Data was collected through a self-administered questionnaire; descriptive statistics was used to calculate the results.

Results: Average age of study participants was 12.54 years. Findings showed that the barriers to excessive homework, weather, and preference for other activities had means and standard deviations of 1.21 ± 0.41, 1.34 ± 0.47, and 1.34 ± 0.48, respectively. Additionally, 87.6% of students enjoyed leisure walking, and 56.9% used walking as a means of commuting.

Conclusion: Study findings underscore the need for targeted interventions and policy measures to promote physical activity and enhance the overall wellbeing of this age group in the region.

Keywords: *Health surveys, motivation, environment design, residence characteristics, walking, observational*

INTRODUCTION

As perceived and experienced by individuals, wellbeing is a crucial measure of health outcomes, especially for children [1]. It focuses on physical, emotional, and social dimensions, reflecting a wholesome approach to health and fitness and ensuring wellbeing in life stages that are early having a long-term impact, to promote resilience and to reduce the risk of chronic diseases

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It is also important to understand and imply that regularly exercising in any form is one of the best ways to live a healthy and content life and be fit, as stated and documented in the 2020 guidelines of the World Health Organization[2]. These guidelines aim to encourage and enhance physical activity among people at every type of population since exercise enhances their health and development canal[3]. One of the most basic and consistent associations in health is incorporation of physical activity and health. It is not just a mere statement anymore but occupies a large part of the everyday living of people of all ages [4]. This paper proves that fitness and illness prevention are not the only benefits of exercise and physical activity but it goes beyond. Given this, physical activity is a weapon against diseases and a way to help people achieve physiological and psychological wellbeing and treat disorders [2]. Even though numerous pieces of evidence supports the role of physical exercise or physical fitness, the majority of the global population remains physically inactive and lead a sedentary life style, and the level of physical fitness is declining almost deteriorating. A cross-sectional study conducted in 25 countries involving 150651 children showed significant differences in P.A., sedentary behaviour, and sleep. Internationally, the original findings revealed that 79.4 % of children achieved more than one hour of active play daily, 53.9% of children did not participate in sports or dancing clubs, 50% physically attended school travelling on feet or cycles, 60.2% restricted the television/computer or other electronic, game time to less than two hours per day and 84.9 % had 9-11 hours sleep daily. However, sizeable differences in these behaviours were still detected across countries, underlining the importance of country-specific approaches and measures. We have stressed the importance of multicomponent interventions to encourage physical activity and the various barriers that hinder it[5]. The association of physical activity with health is not just about the here and now; it also shapes future health trajectories. School-aged children are a specific population segment where physical activity and health are significant. Leisure-time physical activity (LTPA) is the domain of physical activity of particular importance. LTPA represents that possible portion of exercise, physical activity and sports activities that should be available to all children, which reflect areas of physical activity recommendation and adherence challenges encoded within the school day [6]. LTPA includes exercise, sports, and other recreational activities distinct from regular work, household work, transportation, and leisure-time sedentary behaviour, such as screen activities for school work or entertainment. However, it offers the opportunity to establish routines and regular participation each week as a basis for depending on and sustaining our behavioural activation to needed levels of physical activity. LTPA provides various health benefits that are key to counteract high rates of sedentary behaviour during the school day. Only a few adults, particularly women, individuals with low socioeconomic status, ethnic minority adults, and older adults, are engaged in LTPA [7] the reasons why for the latter are primarily personal and environmental. People report many personal reasons for non-participation in the physical that can disrupt the regular, sustained pattern of engaging in needed minutes of physical activity a day and are barriers to doing regular LTPA [8]. Significant personal barriers are restricted to lack of time, too much homework, being too tired to perform LTPA, lack of ambition, and too much responsibility for school performance. Financial barriers may also be of concern if organized LTPA is not available for no cost. Environmental barriers are even showing exacerbations since urban neighbourhoods or rural areas lack a safe place to play, playgrounds have bullies, no friends from school around, and not enough friends from school [9-10.] In that context, life in rural areas, including those constraints in LTPA participation, is better, and there is less poverty, fewer chronic diseases, and more physical activity participation [11-12]. It is essential to consider the interaction effects of personal and environmental barriers. For example, academic responsibility is a personal barrier, but recreational facilities are also unavailable. Additionally, financial barriers can have an impact that is not just of a financial nature. Necessarily, more in rural areas[13].

METHODOLOGY

This cross-sectional study was conducted in Karachi based on the comprehensive methodology of investigating the factors influencing leisure time and physical activity among school-going students. Data has been collected over six months after the approval to ensure a well-structured approach was taken to gather and analyze the data. The main aim and focus of the study were Karachi's primary and secondary school students. A sample size of 378 was calculated using open epi version 3.0. Participants were recruited using a convenience sampling technique, a non-probability sampling method. Inclusion criteria were based on school-going students aged 18 and 16, including both genders. Students with mental and physical disabilities were excluded. It had also been ensured that students were not part of any sports teams or clubs. The exclusion criteria were based on the individuals who were unwilling to participate, children not attending physical school, and those engaged in hostilities were not included in the study. Before data collection, participants' parents were approached and were explained regarding consent and further survey. Objectives, significance, and confidentiality were also explained. Informed consent was present in both Urdu and English. Data collection information was entered into Statistical Packages of Social Sciences (SPSS) software version 23.0 for the data analysis. Descriptive statistics were calculated through frequencies and percentages. Such an analytical approach gave a comprehensive overview of the factors influencing leisure time physical activity among the selected students, generating valuable insights and conclusions. A self-administered questionnaire was used to identify the barriers to physical activity during leisure time. Furthermore, ethical considerations were taken into account throughout the research.

RESULTS

This study delves into the physical activity behaviours and the barriers to leisure-time physical activity in a cohort of 378 participants. They focus on their walking, cycling, jogging, stair-use routines and the hurdles they encounter. In this group, there were 174 boys (46%) and 204 girls (54%), with a mean age of 12.54 years and an average BMI of 20.39, accompanied by a standard deviation 6.65.Regarding walking habits, 331 students (87.6%) reported walking for pleasure, while 47 (12.4%) did not. December was the most active month for these students, with 65.6% engaging in this activity, followed closely by July at 65.3%. Most of these students (81.2%) walked for less than 6 hours per week. Among those who chose to walk to work, January was the favoured month, with 47.6% doing so. In total, 215 students (56.9%) opted to walk to work, while 163 students (43.1%) did not, and more than half of them (51.1%) walked for less than 6 hours per week. Regarding walking during work breaks, June emerged as the most popular month, with 39.7% of participants choosing to do so. Among the group, 237 students (62.7%) embraced walking during work breaks, with 141 (37.3%) abstaining. Most of those who walked during breaks (55.8%) did so for less than 6 hours per week. Using stairs as an alternative to elevators also revealed a preference for December, with 62.2% of participants opting for the stairs. Overall, 235 students (62.2%) used stairs when elevators were available, while 143 students (37.8%) did not. A significant proportion (55.6%) of these students used stairs for less than 6 hours per week.Cycling had its peak month in January, with 55% of students choosing to use bicycles for work or pleasure. Two hundred thirty-five students (62.2%) embraced cycling, while 143 students (37.8%) did not. Most (55.8%) used bicycles for less than 6 hours per week. As for jogging or walking, January again proved to be the most popular, with 56.9% of participants engaging in these activities. Two hundred fifty-six students (67.7%) opted for jogging or walking, while 122 students (32.3%) did not. Most students (61.6%) jogged or walked for less than 6 hours weekly. In addition to these activities, the study explored the barriers to leisure-time physical activity. Various barriers were assessed and assigned mean scores, with "feel lazy" scoring the highest at 1.7804 ± 0.41451, while "lack of motivation" followed closely at 1.7381 ± 0.44025.The study

assessed various barriers to leisure time and physical activity.The mean scores for each barrier were calculated as follows:

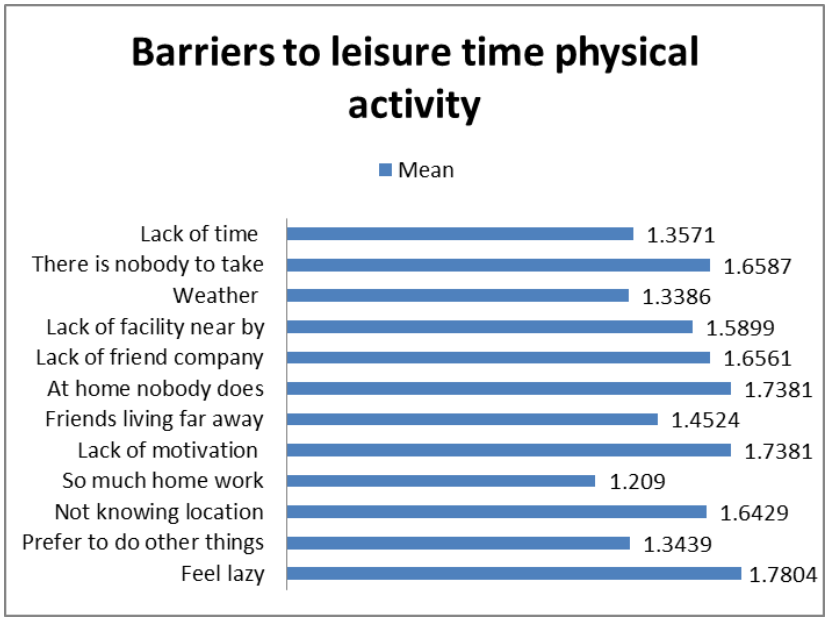

Figure 1 presents the mean value of barriers to leisure time physical activity

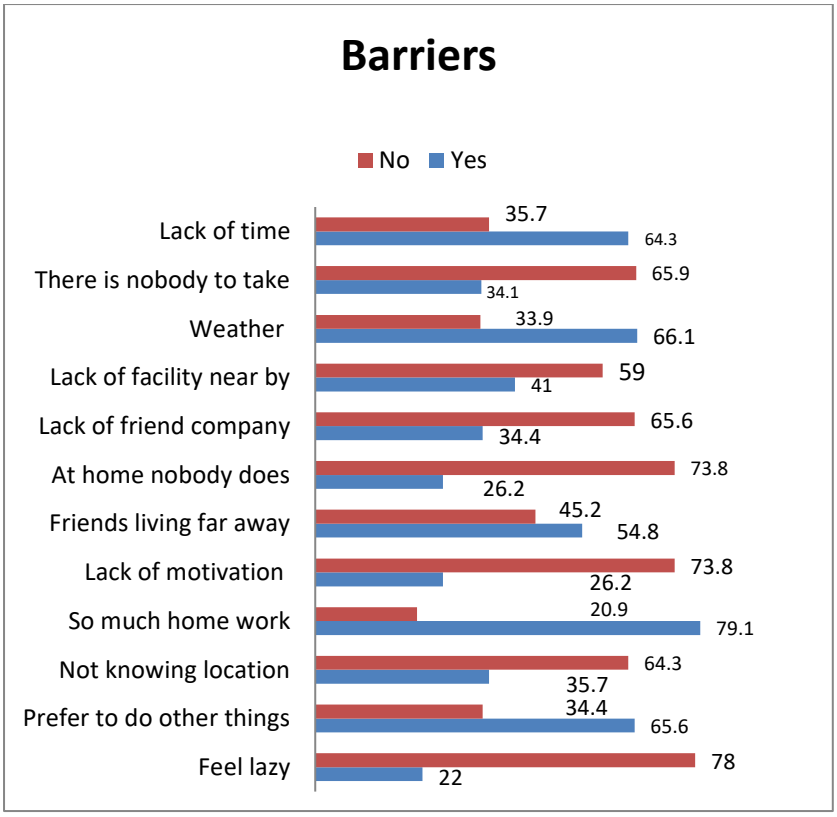

Figure 2 represents the frequency of Barriers to leisure time activity

DISCUSSION

The study explored the barriers to leisure time and physical activity among Karachi school-going students. The present study concluded that so much homework, weather conditions and the tendency to do other things were the main barriers to leisure time and physical activity. The study by Motoki et al. reveals essential insights into the physical activity levels of elementary school

students in Japan. The data indicates that many students participate in physical activities such as walking for pleasure, walking to work, and cycling. However, many also need help with leisure time physical activity, including feeling lazy and having too much homework [14-16]. These findings are consistent with previous research that has explored physical activity levels and barriers among children and adolescents [17].It is worth noting that the prevalence of physical activity can vary based on whether students live in urban or rural areas. Manyanga et al. found disparities in meeting physical activity recommendations between Canadian youth in rural and urban communities. The findings suggest that there may be unique challenges and opportunities for promoting physical activity in different settings. Understanding these differences is crucial for tailoring interventions and policies to address the specific needs of urban and rural students [18].One intriguing aspect of the relationship between physical activity and academic performance is highlighted in the study by Gonzalez-Sicilia et al. The study found prospective associations between participation in leisure-time physical activity at a young age and academic performance in later years. This suggests that promoting physical activity in elementary school students may have physical health benefits and potential academic advantages [19]. Parents play a significant role in influencing the physical activity levels of children [20]. Kybartas et al. emphasize the importance of parental rewards in incentivizing children's physical activity [21]. Engaging parents in promoting physical activity and providing positive reinforcement can be a valuable strategy for encouraging children to stay active [22]. Understanding the barriers to physical activity is crucial for designing effective interventions. Motoki et al. identified various barriers, including feeling lazy, having too much homework, and lacking motivation [16]. These findings align with those of Martínez-Andrés et al., who applied the socio-ecological model to identify physical activity barriers in children's leisure time. This model helps identify barriers at multiple levels, including individual, interpersonal, and environmental, which can inform the development of targeted interventions [23,24]. In this economically disadvantaged Latino community, we observed limited physical activity levels during leisure time among the student population [25].Time constraints and daily routines can significantly impact physical activity levels. Spotswood et al. shed light on how the temporal dimensions of mothering can affect leisure time and physical activity [26]. Understanding these temporal constraints can help develop strategies to integrate physical activity into daily routines[27].

Recommendation

Enhancing school facilities is imperative to address these challenges, creating an environment conducive to physical activities. Encouraging participation in inter-class or inter-school sports competitions can foster interest and enthusiasm for physical activities. Furthermore, integrating comprehensive physical activity opportunities into the school curriculum is vital. Addressing social determinants and enhancing curricula will be pivotal in overcoming these barriers and promoting a more active lifestyle among students

CONCLUSION

Conclusively, this study sheds light on the barriers hindering leisure time and physical activity among school-going students in Karachi. The findings underscore that overwhelming homework, adverse weather conditions, and a preference for other activities are significant deterrents. Additionally, the lack of family engagement in exercise further compounds the challenge. Despite these obstacles, most students stroll for less than six hours weekly.

AUTHORS' CONTRIBUTION:

The following authors have made substantial contributions to the manuscript as under:

Conception or Design: Arooj Raza, Dr Muhammad Asif

Acquisition, Analysis or Interpretation of Data: Mehwish Khan, Hina Al Fatima Siddiqui

Manuscript Writing & Approval: Reeta, Naz Fatima

All authors acknowledge their accountability for all facets of the research, ensuring that any concerns regarding the accuracy or integrity of the work are duly investigated and resolved.

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