Sports Sciences and Physical Education Review (SSPER)
Volume 4. Issue 2, December 2025

INTERPERSONAL FACTORS INFLUENCING CHILDREN'S PARTICIPATION IN PHYSICAL ACTIVITY IN DISTRICT MUZAFFARABAD

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Abstract

This study examined the key factors that influence physical activity participation among school-aged children in District Muzaffarabad. The research focused on interpersonal factors, aiming to identify the main barriers and supportive elements within school and home environments. A descriptive cross-sectional survey design was employed, and data were collected through a structured questionnaire from 342 respondents, including parents, teachers, and school principals. The questionnaires covered both demographic information and specific items related to physical activity. Data analysis was performed using SPSS version 26, utilizing descriptive statistics and inferential tests such as t-tests and ANOVA. Results showed that interpersonal factors, especially support from parents, peers, and teachers, played the most significant role in encouraging children's participation in physical activities. The study concludes that increasing physical activity participation among children requires collaborative efforts at the family, school, and government levels. Recommendations include adopting inclusive school policies, increasing funding for physical education, regular monitoring, and awareness programs for stakeholders to foster an active and supportive environment for children in Muzaffarabad.

Keywords: Physical Activity Participation; Children's Sports Activities; Interpersonal Factors; Peers; Demographic Factors.

Introduction

Physical activity refers to any body movement that requires muscle energy, like walking, running, or even just moving (World Health Organization, 2019).

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Maintenance of good health and well-being could be gained through physical activity participation. Physical activity can potentially benefit the physique, mind, and heart (Shaikh, 2023; Wallman et al., 2021). The World Health Organization (2018) recommended 150-300 minutes of moderate aerobic exercise per week for adults, while adolescents should engage in 60 minutes of moderate PA regularly. Physical activity participation is a difficult scenario to follow due to many factors (Zhang et al., 2017)). The factors affecting physical activity (PA) are very complex with a broad range of variability, including individual-level factors, social factors, interpersonal factors, organizational factors, and biological factors (Hu et al., 2021).

Interpersonal factors, such as support from parents, peers, or teachers, can play a significant role in promoting participation in physical activity (Wang et al., 2020). Previous studies have found that parental support for physical activity is directly linked to increased promotion of physical activity. Parental support motivates children to participate in physical activity, guiding them regarding exercise, playing with them, and exercising together (Haider et al., 2024). Higher levels of physical activity among children are closely correlated with parental participation, encouragement, and modeling of active behavior. Studies have shown that children are more likely to be physically active when their parents engage in physical activities with them, drive them to sporting events, or encourage them verbally. (Tamminen et al., 2022),

Physical activities play a vital role in discouraging a sedentary lifestyle and improving the participant's lifestyle. However, school-going children are the assets of any nation, and participation in physical activities is crucial to improving their physiques, minds, and social wellness (Razzak et al., 2019). PA is considering the dominant and influential context in order to convert the inactive hours into dynamic, movable, and active moments, which could potentially restrict the health hazards and issues. Therefore, the focus of this research is to identify the factors that reduce children's participation in physical activities (Figaji, 2009). Two of the most studied variables in children's physical activity are age and gender. The physical activity of children usually declines as they grow older, particularly when they pass the stage of childhood to adolescence. This has been attributed to increased academic demands, interpersonal pressures, and reduced participation in activities involving play (Dardovski, 2024).

Children's habits linked to physical activity (PA) are greatly influenced by their

parents and the school. PA is more likely to be engaged in by children whose parents are physically active themselves, according to several studies (Matos et al., 2021). Additionally, parental assistance, whether it be financial, logistical, or emotional, increases children's motivation and chances for physical activity (Liu et al., 2023).

Physical activities are considered very important and need to be prioritized in the contemporary age across different populations. PA is a potential context that promotes the active, healthy lifestyle of the participants, leading to a sound physique, restricting cardiovascular problems and diabetes. PA could influence the restriction of childhood obesity and overweight problems. In this regard, school-going children are at a crucial stage that needs to be healthy, active, and sound. So, participation in physical activities encourages these aspects of children, leading to a healthy and active nation. However, due to certain factors such as individual, interpersonal, organizational, policy, and community factors are the hindrance in the way of declining children's participation level. This study specifically focused on interpersonal factors. This study explored the potential reasons and levels of school-going children's participation across the Muzaffarabad district.

Material & Methods

The present research was a descriptive cross-sectional survey design to investigate the influence of interpersonal factors on children's participation in physical activities. This study was conducted in Government High Schools of District Muzaffarabad, Azad Jammu and Kashmir (AJK), where physical activity participation among school-going children was explored. The research investigated the relationship between age, gender, and place of residence as demographic variables and the propensity of children to engage in exercise. The researchers attempted to reveal new trends and determine obstacles that define the location and manner in which children exercise by comparing the rates of participation in the various age groups, boys and girls, and urban and rural settings. The target population consisted of school-going children in Muzaffarabad. There are 5,200 male students across 78 primary schools with 48 physical education teachers, and 4,930 female students in 70 schools with 30 physical education teachers. The sample included both male and female students selected through simple random sampling. A structured, close-ended questionnaire based on a 4-point Likert scale was used for data collection. The tools were adapted from established instruments, including the WHO (2018), CDC (2020), and NASPE (2019).

Data collection was conducted in three phases, targeting parents, teachers, and principals of school-going children in District Muzaffarabad. For the parents' responses, questionnaires were handed over to students, and they were instructed to take them home and get them filled out by their parents. For teachers and principals, the researcher personally visited government schools and collected the data through direct interaction on-site. 600 questionnaires were distributed, and 405 were returned. Following the principle of completeness and accuracy, the 63 missing and invalid data were eliminated, and 342 complete and valid questionnaires were used in the final analysis. This method ensured data was collected from all three target groups using both direct and indirect approaches, maintaining clarity and accuracy in the process. Data were analyzed using SPSS version 26. Both descriptive statistics (mean, percentage, frequency) and inferential statistics (t-tests, ANOVA) were applied for interpreting results

Results

Table 1. Demographic Information of the Respondents

Category	Group	N
Age of Participant	0–25 Years	30
	26–35 Years	91
	36–45 Years	173
	46+	48
Gender of Participant	Male	90
	Female	252
Role of Participant	Parents	225
	Teachers	112

In terms of age distribution, the largest group of participants (N = 173; 50.6%) falls within the 36–45 years range. The second most represented age group is 26–35 years (N = 91; 26.6%), indicating a significant portion of relatively younger adults, possibly early-career teachers or young parents. Participants aged 46 and above account for N = 48 (14.0%), while those under 25 are the smallest group, with N = 30 (8.8%). Gender-wise, the respondent pool is heavily skewed toward females, with N = 252 (73.7%) identifying as female, compared to N = 90 (26.3%) males. Regarding the roles of the participants, the majority were parents (N = 225; 65.8%), followed by teachers (N = 112; 32.7%), while only a small number of respondents were principals (N = 5; 1.5%).

Table 2. Demographic Information for Teachers and Principals

Category	Group	N	%
Qualifications	Matric	16	13.7%
	FSC/FA	23	19.7%
	BS/BA	42	35.9%
	Master	31	26.5%
	MPhil/PhD	5	4.3%
School Type	Girls	29	24.8%
	Boys	83	70.9%
	Coeducation	5	4.3%
Experience (Years)	0–5 Years	15	12.8%
	5–10 Years	37	31.6%
	11–15 Years	46	39.3%
	15+ Years	19	16.2%

Table 2 presents the demographic characteristics of the teachers and principals who participated in the study. These characteristics include qualifications, school type, and years of professional experience. In terms of academic qualification, the majority of participants held a BS/BA degree (N = 42; 35.9%), followed by those with a master's degree (N = 31; 26.5%). A smaller portion had qualifications of FSc/FA (N = 23; 19.7%), Matric (N = 16; 13.7%), and only 5 participants (4.3%) had attained an MPhil or PhD. Regarding school types, most participants were affiliated with boys' schools (N = 83; 70.9%), followed by those from girls' schools (N = 29; 24.8%), and a minimal number represented coeducational institutions (N = 5; 4.3%). As for teaching experience, the highest number of respondents had 11–15 years of experience (N = 46; 39.3%), followed by 5–10 years (N = 37; 31.6%), 15+ years (N = 19; 16.2%), and the smallest group had 0–5 years of experience (N = 15; 12.8%). This distribution indicates that most respondents were mid-career professionals with considerable teaching experience.

Table 3. Age-wise Differences analyzed through ANOVA

		Sum of Squares	Df	Mean Square	F	Sig.
Interpersonal Factors (Parents)	Between Groups	.554	3	.185	3.051	.029
	Within Groups	20.460	338	.061		
	Total	21.014	341			
	Total	6.929	116			

In Table 3, the ANOVA analysis showed that there was a statistically significant difference in the four levels of groups on interpersonal factors involving parents. Between-groups variance contributed 0.554 out of 21.014 total sum of

squares, which gave a mean square of 0.185 and an F ratio of 3.05 (df = 3,338). The p-value of 0.029 is an indication that the observed group discrepancies may not be a result of chance. The rest of the 20.46 variance (df, 338, MS, 0.061) was ascribed to variability within groups.

Overall, group membership (2.6 percent) explained a significant percentage of the total variance in parental interpersonal factors, with conventional levels of statistical significance.

Table 4. Gender-wise Differences Analyzed through Independent Sample T-Test

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Interpersonal Factors (Parents)	Equal variances assumed	.187	.666	2.58	340	.010	.07825	.03023	.01879	.13772
	Equal variances not assumed.			2.63	162.3	.009	.07825	.02968	.01964	.13686

An independent samples t-test was conducted to determine if there were significant gender-based differences in perceptions of interpersonal factors related to children's physical activity. For Interpersonal Factors (among parents), the results revealed a statistically significant difference between male (M = 2.1822, SD = 0.23918) and female participants (M = 2.1040, SD = 0.24863), t (340) = 2.588, p = .010. This suggests that male parents perceive slightly greater interpersonal barriers to children's physical activity compared to female parents. The effect size (Cohen's d = 0.25) indicates a small to moderate difference in practical terms. Gender-based differences were found to be significant only in the domain of interpersonal factors, with male parents expressing greater concerns. No significant differences were observed for organizational and policy factors, although females tended to perceive slightly more support from policy-related structures.

Table 5. Role of Participant Differences Analyzed through ANOVA

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		F	Sig.
						Lower Bound	Upper Bound		
Interpersonal Factors (Parents)	Parents	225	2.1258	.26885	.01792	2.0905	2.1611	0.268	0.765
	Teachers	112	2.1196	.20701	.01956	2.0809	2.1584		
	Principal	5	2.1800	.10954	.04899	2.0440	2.3160		
	Total	342	2.1246	.24824	.01342	2.0982	2.1510		

A one-way ANOVA was conducted to examine differences in interpersonal, organizational, and policy factors across participants' roles (parents, teachers, and principals). For interpersonal factors, mean scores were quite similar across groups: parents (M = 2.1258), teachers (M = 2.1196), and principals (M = 2.1800). The ANOVA results showed no statistically significant difference, F = 0.268, p = 0.765, indicating that all role groups perceived interpersonal barriers similarly.

Table 6. Qualification Differences Analyzed through ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Interpersonal Factors (Parents)	Between Groups	.186	4	.046	1.121	.350
	Within Groups	4.637	112	.041		
	Total	4.822	116			

A one-way ANOVA was conducted to explore the influence of participants' academic qualifications on their perceptions of interpersonal factors affecting children's physical activity. For interpersonal factors, the highest mean was reported by participants holding a master's degree (M = 2.2210), while those with a Matric qualification had the lowest (M = 2.0313). However, the ANOVA results showed no statistically significant differences between qualification groups, indicating that while perceptions varied slightly, these variations were not meaningful.

Discussion

This study investigated how interpersonal factors impact the participation of school-going children in physical activities within the Muzaffarabad region. Through the application of descriptive and inferential statistics, meaningful patterns emerged regarding the perceptions of key stakeholders, including parents, teachers, and school principals.

Interpersonal factors indicate that parental guidance, peer interactions, and teacher support significantly influence children's physical activity behavior. This observation is consistent with the findings of Rebold et al. (2024), who highlighted the strong link between parental involvement and increased physical activity among children. In addition, the role of social encouragement from peers and school staff aligns with a study by Berthiaume et al. (2024). The inferential analysis revealed statistically significant differences in interpersonal factor perceptions based on age ($p = .029$), where older respondents reported greater challenges. Additionally, a notable difference was observed between male and female participants in interpersonal factors ($p = .010$), with male respondents identifying more perceived barriers. These trends are consistent with earlier findings by Cárcamo et al. (2021), who explored gender-based differences in familial expectations and physical activity.

This study emphasized the complex and multifaceted character of school-aged children's physical activity involvement, with interpersonal factors like support from classmates, parents, and teachers proving to be the most significant. Along with the use of both descriptive and inferential statistics, which improved the dependability of the results, the study's inclusion of a variety of stakeholders, parents, teachers, and principals offers a thorough viewpoint. Presenting localized evidence from Muzaffarabad, a place with little previous research on this subject, is another way that the study provides value. Nevertheless, the cross-sectional design, which limits causal interpretation, and the dependence on self-reported data, which could be biased, are limitations. Furthermore, the emphasis on public schools can restrict the applicability to private ones. Despite these limitations, the study offers strong evidence in favor of giving interpersonal-level interventions top priority and urges cooperation from families, educational institutions, and governments in order to create a more engaging and encouraging atmosphere for kids in Muzaffarabad.

Recommendations

1. Parental awareness programs should be implemented to educate families about the physical, mental, and academic advantages of regular physical activity.
2. Future research should specifically target schoolteachers as a focus group when investigating barriers to physical activity. Many teachers themselves are unaware of the long-term benefits of physical activity, limiting their ability to guide students and parents effectively. Enhancing teachers' awareness could empower them to

become advocates for physical activity, positively influencing both students and their families.

3. Schools should develop continuous professional development programs to improve teachers' skills and knowledge regarding physical activity promotion, ensuring consistent support for student engagement.
4. Future research should include longitudinal studies to assess long-term changes in children's physical activity behavior and understand the sustainability of interventions.

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