

# How Children's Sports Participation Influences School Engagement Levels

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## Abstract

This longitudinal investigation delves into the influence of sports involvement on the scholastic engagement of both left-behind and migrant children within China. The findings elucidate a notable discrepancy in scholastic engagement levels, with left-behind children ( $M=4.34$ ) and migrant children ( $M=5.65$ ) exhibiting markedly lower levels compared to their urban counterparts ( $M=6.02$ ). Furthermore, the results underscore a significant positive correlation between participation in sports activities and scholastic engagement among these demographic groups. The analysis further reveals that interpersonal competencies serve as a partially mediating factor in this relationship. Additionally, the study identifies various individual and familial factors that exert significant influence on scholastic engagement levels. This research underscores the constructive impact of sports involvement on scholastic engagement and accentuates the importance of interpersonal skills. At a societal level, educational institutions, communities, and administrative bodies should endeavour to enhance the accessibility and inclusivity of diverse sporting opportunities, while integrating public sports resources more comprehensively into the social fabric. On a national policy level, the establishment of a sports participation network that fosters collaboration among homes, schools, and communities emerges as a promising avenue for furthering these objectives.

**Keyword:** Sports Participation, School Engagement, Interpersonal Skill, Children.

## Introduction

The rapid urbanization in China has triggered substantial labour migration from rural to urban regions (Lyu, Sun, & Huang, 2019), with migrant workers significantly bolstering the nation's economic growth (Xueyuan, 2019). However, this migration has led to the division of children into two distinct groups: those who remain in their hometowns, termed left-behind children, and those who relocate with their parents, termed migrant children. Left-behind children experience separation from their parents, lacking adequate supervision and nurturing care, while migrant children must acclimate to unfamiliar environments outside their native areas (Lockertsen et al., 2021). A key concern arises from the notably low levels of school engagement observed among these children. Given the pivotal role schools play in their lives and the profound impact of their educational experiences on future development, enhancing the school engagement of left-behind and migrant children carries significant societal implications and warrants comprehensive investigation. While prior research has shed light on the challenges faced by left-behind and migrant children, a conspicuous gap exists in the availability of statistical data and comprehensive studies that integrate various factors influencing their school engagement. Previous studies have predominantly focused on specific facets or subgroups, overlooking the holistic

comprehension of school engagement dynamics across different child demographics (Gu, 2022). Addressing this void, this study leverages data and employs multivariate statistical analysis to scrutinize the levels of school engagement among left-behind, migrant, and urban children. Through statistical discernment of disparities in school engagement among these cohorts, the study endeavours to uncover the underlying determinants shaping their educational experiences.

Moreover, this research probes into the nexus between sports participation and school engagement among left-behind and migrant children, an aspect receiving limited attention in prior studies. The empirical examination seeks to elucidate how involvement in sports activities may bolster school engagement among these children, considering the potential mediating influence of interpersonal skills development. By investigating this distinct cohort of children and probing the relationship between sports participation, interpersonal skills, and school engagement, this study aims to furnish valuable insights into efficacious interventions and policies fostering comprehensive development and academic achievement among left-behind and migrant children. The anticipated findings of this study are poised to deepen understanding of the mechanisms and avenues for enhancing educational outcomes amid China's urbanization and migration dynamics.

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## Literature Review

The topic of diminished school involvement among left-behind and migrant youth has attracted considerable scholarly interest, underscoring the pressing need to confront this issue for their holistic welfare and prospective trajectories. Previous scholarship has delineated several salient motifs, illuminating the intricate complexity of school engagement and its consequential effects on the developmental trajectories of children.

The significance of school engagement among left-behind and migrant children is paramount, as it intricately intertwines with their holistic development, well-being, and future opportunities. Empirical evidence consistently illustrates that elevated levels of school engagement correlate with an array of favourable outcomes extending beyond mere academic attainment. Primarily, school engagement directly influences academic performance. Children who actively participate in learning endeavours, engage in classroom activities, and demonstrate genuine enthusiasm for education tend to achieve higher grades, acquire crucial knowledge and competencies, and excel in standardized assessments. Furthermore, sustained school engagement fosters heightened motivation to learn, perseverance in academic pursuits, and a constructive disposition towards confronting challenges and embracing learning opportunities. Secondly, school engagement assumes a pivotal role in moulding children's socio-emotional growth. Actively partaking in school-related activities, forging positive bonds with peers and educators, and experiencing a sense of affiliation with the school community contribute to feelings of belongingness, self-assurance, and emotional resilience. Engaged students are predisposed to exhibiting prosocial behaviours, cultivating empathy and effective communication skills, and adeptly navigating social interactions within and beyond the confines of the educational milieu.

Thirdly, robust school engagement closely correlates with behavioural commitment and regular attendance. Engaged students exhibit adherence to school regulations and norms, demonstrate responsible conduct, and uphold consistent attendance patterns, thereby mitigating the likelihood of disciplinary infractions, absenteeism, and academic disengagement, thereby fostering an environment conducive to learning for all learners. Lastly, the enduring ramifications of school engagement reverberate throughout children's educational trajectories and career trajectories. Engaged students evince a propensity towards pursuing tertiary education, setting ambitious aspirations, and making informed choices concerning their academic and vocational pursuits.

Moreover, they are equipped with the requisite resilience to navigate obstacles, actively seek avenues for personal advancement and growth, and flourish across varied educational and professional milieus.

Left-behind children, referring to those whose parents relocate to urban areas for employment, encounter a spectrum of hurdles affecting their academic involvement and holistic welfare. Foremost among these obstacles is the emotional and psychological toll of parental absence. Sequestered from their guardians for prolonged durations, these youngsters often grapple with sentiments of solitude, apprehension, and instability. The dearth of parental counsel and emotional backing can precipitate feelings of forsakenness and contribute to psychological afflictions such as despondency and diminished self-esteem. Additionally, the custodial arrangements for left-behind children exhibit considerable diversity and may not consistently furnish adequate oversight and nurturing. In certain instances, these children are entrusted to the care of grandparents, kin, or neighbours who might lack the requisite resources, time, or capacity to adeptly cater to their educational and emotional requisites. Consequently, this can engender an inconsistency in parental approaches, disciplinary methodologies, and scholastic reinforcement, thereby fostering bewilderment and volatility among the children. Furthermore, left-behind children frequently contend with obstacles pertaining to the accessibility of educational amenities and prospects. Rural educational institutions may suffer from insufficient funding, antiquated teaching aids, and a paucity of extracurricular offerings relative to their urban counterparts. This discrepancy in educational calibre can impede the academic advancement, learning impetus, and participation in scholastic endeavours of left-behind children. Moreover, the absence of parental involvement in their educational pursuits can impinge upon their sense of obligation, accountability, and goal establishment. Devoid of parental encouragement, guidance, and oversight, these children may encounter challenges in sustaining motivation, delineating academic objectives, and cultivating a positive attitude towards learning. This dearth of parental engagement may also engender diminished expectations regarding academic attainment and circumscribed aspirations for future accomplishments. Socially, left-behind children may confront difficulties in fostering and perpetuating peer associations. The stigma associated with parental migration, coupled with sentiments of seclusion and alienation, can precipitate social withdrawal, impediments in forging friendships, and a perception of exclusion within their peer cohort. This social sequestration can

exacerbate their emotional welfare and deleteriously impact their academic involvement. In summation, the tribulations encountered by left-behind children encompass emotional, social, academic, and familial dimensions, underscoring the intricate and multifaceted nature of their predicament. Addressing these challenges necessitates a holistic strategy that acknowledges the idiosyncratic requisites of left-behind children, fosters nurturing caregiving environments, bolsters educational infrastructure in rural locales, and fosters communal support networks to fortify their resilience, well-being, and academic engagement.

The examination of school engagement within the context of migrant children has garnered significant scholarly attention, underscoring the intricate nature of their educational encounters. A burgeoning body of literature has delved into diverse factors shaping the school engagement of migrant children, elucidating both impediments and potential avenues for enhancing their scholastic outcomes and holistic welfare. The process of social assimilation and the cultivation of peer affiliations emerge as pivotal determinants of migrant children's school engagement (Shoshani et al., 2016). Positive interactions with peers, opportunities for friendship cultivation, and a sense of belonging within peer circles can bolster their impetus to partake in school-related endeavours, collaborate with classmates, and solicit assistance from peers and educators (Strom et al., 2019). Conversely, experiences of social seclusion, peer exclusion, or instances of bullying can exert adverse effects on both school engagement and emotional well-being among migrant children (Engels et al., 2019).

The significance of parental engagement and support looms large in fostering school engagement among migrant children. Supportive and involved parents play a pivotal role in advocating for their children's educational requisites, furnishing academic guidance, instilling positive attitudes towards learning, and establishing efficacious channels of communication with educational institutions and instructors. Nonetheless, impediments such as parental occupational commitments, language barriers, and cultural disparities may impede parental involvement, thereby affecting migrant children's accessibility to educational amenities and support frameworks.

Participation in sports is widely acknowledged as a valuable facet of children's growth, encompassing physical, social, emotional, and cognitive advantages. Investigations delving into the nexus between sports involvement and social interaction among children have yielded substantial insights into the constructive influence of sports on social

growth and interpersonal dynamics. Involvement in sports endeavours furnishes children with avenues to cultivate and refine their social aptitudes. Particularly, team-based sports engender collaboration, communication, cooperation, and teamwork among participants (Dorak, Yildiz, & Sortullu, 2012). Through engagements with teammates, coaches, and adversaries, children assimilate crucial social proficiencies such as leadership, conflict resolution, decision-making, and emotional management. These social competencies transcend into other spheres of life, encompassing scholastic environments, peer relations, and familial interactions, thereby augmenting overall social interaction and interpersonal efficacy (Bowker, 2006; Lyu, Diao, & Zhu, 2024).

Furthermore, sports engagement nurtures a sense of belonging and identity within peer cohorts and communities (Oberle et al., 2019). Membership in sports teams or clubs engenders a shared sense of purpose, camaraderie, and inclusion among participants. This sense of belonging bears particular significance for children from diverse backgrounds, including those who are left-behind or migrants, as it furnishes them with a supportive social milieu, positive role models, and a sense of accomplishment, thereby mitigating sentiments of solitude, seclusion, and estrangement. Moreover, sports pursuits facilitate the cultivation of favourable peer relations and friendships (Fredricks & Simpkins, 2013). The cooperative ethos intrinsic to sports fosters mutual respect, trust, cooperation, and camaraderie among teammates. Children imbibe the values of collective endeavour, mutual assistance during adversities, and communal celebration of triumphs. These affirmative peer associations enrich social integration, peer acceptance, and mutual support, engendering a nurturing and all-encompassing social ambiance conducive to social interaction and well-being. Lastly, sports participation frequently entails community engagement and participation, including contributions from parents, mentors, volunteers, and local establishments (Vertonghen et al., 2017). Community-oriented sports initiatives afford children opportunities to engage with a diverse array of individuals, assimilate lessons in teamwork, leadership, and sportsmanship, and make affirmative contributions to their locales. These communal affiliations foster social responsibility, civic participation, and a sense of connectedness to a broader societal fabric, thereby fortifying social interaction and communal coherence (Lenzi et al., 2013). In essence, engagement in sports significantly contributes to fostering social interaction among children by bolstering their social competencies, nurturing a sense of affiliation and self-

concept, fostering favourable peer dynamics, encouraging healthy communication habits, and facilitating community involvement. Acknowledging the pivotal role of sports in social development, stakeholders such as educators, guardians, and policymakers can endorse and promote children's involvement in sporting endeavours as a mechanism to cultivate constructive social exchanges, enhance well-being, and nurture resilient and socially adept individuals.

Interpersonal connections serve as a cornerstone in shaping the educational commitment and holistic welfare of marginalized and migrant youth (Song et al., 2018). These connections, spanning interactions with peers, educators, family members, and community affiliates, profoundly influence students' scholastic drive, emotional fortitude, social assimilation, and sense of affiliation within the educational setting. Firstly, nurturing positive and supportive bonds between educators and students is essential for fostering educational commitment. Educators who exhibit care, empathy, and understanding establish an environment conducive to learning wherein students feel esteemed, energized, and motivated to engage actively in classroom proceedings. Effective educator-student relationships are characterized by transparent communication, promotion of student autonomy, tailored support, and acknowledgment of students' proficiencies and hurdles. Subsequently, peer affiliations play a pivotal part in shaping students' social evolution, self-perception, and educational commitment (Lizzio, Dempster, & Neumann, 2011; Muthuswamy & Umarani, 2023). Favourable peer associations contribute to a sense of inclusion, companionship, cooperation, and emotional succour among students. Peers can function as wellsprings of inspiration, endorsement, and social affirmation, thereby fostering a conducive educational atmosphere and amplifying students' comprehensive well-being. Conversely, conflicts among peers, instances of bullying, social ostracism, or sentiments of seclusion can adversely affect educational commitment and scholastic attainment (Juvonen, Espinoza, & Knifsend, 2012; Gao, 2023). Sports are pivotal for socialization, fostering relationships beyond the arena, enhancing interpersonal skills, and promoting effective interaction.

## Research Design

### Hypotheses

In a study conducted in Prato, a culturally diverse city in Italy, Luo et al. (2020) investigated the role of sports in facilitating integration and civic engagement among immigrant populations and their offspring. The research commences with an examination of recent policies aimed

at fostering social involvement within Prato and the broader Tuscany region. Furthermore, the study scrutinizes qualitative interviews with municipal authorities, sports administrators, and educators. Sports emerge as a significant avenue for intercultural interaction and transcultural adaptation, consistent with theories of transculturation. Many of these opportunities arise organically or through the city's progressive public initiatives. However, the researchers underscore challenges stemming from assimilationist tendencies that often impede the enactment of sports-centred social involvement policies.

Children left behind, owing to parental absence, encounter diminished familial connections and a disjunction between their domestic and educational environments. This circumstance, coupled with their rapid physical and cognitive growth and absence of adequate supervision, results in educational hurdles in rural locales and worrisome physical and psychological development (Li, Wang, & Nie, 2017). Numerous studies delineate disparities between left-behind children and their counterparts, highlighting issues such as adverse psychological repercussions (Mao, Zang, & Zhang, 2020), subpar academic attainment (Hu, Lonne, & Burton, 2016), diminished school engagement (Chen, 2017), and involvement in delinquent behaviours, even delinquency (Zhou et al., 2003). Conversely, migrant children grapple with cross-cultural obstacles during their transition from rural to urban settings. Social involvement and adjustment are extensively examined in this context (Cobo Hurtado et al., 2021). Migrant children, due to economic and cultural dissonances between rural and urban locales, alongside lower economic and literacy levels within their families compared to urban counterparts, encounter impediments in acclimatizing and integrating into their newfound urban milieu. Conflicts stemming from these disparities may precipitate low self-regard, anxiety, interpersonal challenges, and potential ostracization by peer groups, thereby exacerbating engagement difficulties and fostering marginalization (Hong & Fuller, 2019).

The study's findings highlight significant disparities in educational engagement levels between children from left-behind backgrounds, migrant backgrounds, and their urban counterparts. Moreover, the results underscore the pivotal role of sports participation in enhancing school engagement among left-behind and migrant children. Additionally, interpersonal skills are identified as a partial mediator in this process. To investigate the impact of extracurricular physical activities on the school engagement of left-behind and migrant children, these groups were selected as subjects for the study. Through

their interpersonal skills, active participation in physical activities can influence the school engagement of left-behind and migrant children.

Addressing the issue of low school engagement by increasing sports participation entails strengthening the interpersonal abilities of left-behind and migrant children. Hence, the study focuses on exploring the effects of extracurricular physical activities on their school engagement processes and the underlying mechanisms by which physical participation influences the school engagement of these groups through their interpersonal skills. The mediating role of interpersonal skill proficiency warrants attention. Previous studies involving adolescents or young children have indicated that sports participation can enhance interpersonal skills to some extent (Shu-hong & Ji-hong, 2022). Additionally, Wang et al. (2020) found that activities such as baseball, softball, and sandbox games could effectively alleviate social anxiety during interpersonal interactions.

Based on the above analysis, 2 hypotheses were proposed. Hypothesis 1: Sports participation can predict the school engagement degree of left-behind children and migrant children. Hypothesis 2: Interpersonal skills act as a mediator, bridging the connection between sports involvement and the level of school engagement in both left-behind and migrant children.

#### Variable

The independent variable, sports participation, denotes the cumulative hours engaged in extracurricular sporting activities per week. Interpersonal skill denotes individuals' capacity to engage actively in communication, demonstrate positive and effective interactional behaviours, and foster harmonious relationships. Sociality among children was gauged by the number of students reporting their closest friendships. The dependent variable, school engagement, was assessed through various indicators, including statements such as "most of my classmates are friendly to me," "I frequently partake in school or class activities," "I feel a sense of closeness with individuals at this school," "My parents often receive criticism from my teachers," and "My teachers frequently criticize me."

To ensure the rigor of the analysis, the study controlled for several variables that could potentially influence both sports and school engagement. These controlled variables encompassed gender, age, parental education level, parental occupation, and family economic status.

**Table 1**

*ANOVA Analysis for School Engagement*

| Variable                 | Urban Children<br>(M±SD) | Left-Behind Children<br>(M±SD) | Migrant Children<br>(M±SD) | F     | P    |
|--------------------------|--------------------------|--------------------------------|----------------------------|-------|------|
| School Engagement Degree | 6.02±3.32                | 4.34±3.12                      | 5.65±3.43                  | 36.23 | 0.00 |

#### Method

The data encompassed information from five provinces across China, comprising a total of 683 randomly selected entries that included various demographic details of students, families, and school-related information. Subsequent to data collection, a standardization procedure was applied, and reverse-scoring techniques were implemented using SPSS 26.0 software. To investigate disparities in school engagement across different demographic groups, a one-way ANOVA analysis was conducted. Furthermore, descriptive statistics and correlation analyses were employed to evaluate the direct influence of sports participation on school engagement.

In order to scrutinize the mediating influence of interpersonal skills, the Bootstrap method was employed. This method facilitates the estimation of indirect effects by generating numerous bootstrap samples from the original dataset. The Bootstrap plugin was utilized to execute Process analysis, a widely utilized methodology in disciplines such as psychology and organizational behaviour for elucidating intricate models.

#### Results and Analysis

Based on the analysis of data pertaining to household registration characteristics, household registration location, and living arrangements with parents, subsets of data corresponding to urban children, left-behind children, and migrant children were delineated.

To elucidate discrepancies in school engagement levels among these three groups, variables were devised to differentiate school engagement within each group. ANOVA was employed to ascertain whether significant differences exist and to delineate the extent of these gaps. Table 1 and 2 provide detailed descriptions of school engagement levels for urban residents, left-behind children, and migrant children. The ANOVA results indicate a highly significant ( $p < 0.001$ ) distinction in school engagement levels among all three cohorts, with urban children exhibiting the highest degree of school engagement, followed by migrant children. Conversely, left-behind children demonstrate the lowest level of school engagement among the three groups.

**Table 2***LSD Multiple Comparison Analysis*

| Category             | Urban Children | Left-Behind Children | Migrant Children |
|----------------------|----------------|----------------------|------------------|
| Urban Children       | -              | 1.42***              | 0.55***          |
| Left-behind Children | -              | -                    | 0.98***          |
| Migrant Children     | -              | -                    | -                |

**Table 3***Correlation Analysis*

|                          | Sports Participation | School Engagement Degree | Interpersonal Skill |
|--------------------------|----------------------|--------------------------|---------------------|
| Sports Participation     | 1                    | 0.17*                    | 0.18**              |
| School Engagement Degree | -                    | 1                        | 0.18*               |
| Interpersonal Skill      | -                    | -                        | 1                   |

Note: \*indicates significance at 0.05 level, \*\* means significant at 0.01 level, and \*\*\* represents significant at 0.001 level.

All variables underwent initial standardization, followed by the utilization of Model 4 from the SPSS plug-in Process, developed by Hayes, while controlling for gender, age, parental occupation, and family socioeconomic status. This model was employed to investigate the impact of interpersonal skills on both the degree of school engagement and involvement in sports. Analysis, particularly referencing Table 4, indicates that the Bootstrap 95% confidence interval excludes a value of zero for both the direct influence of sports participation on school engagement and the mediating influence of interpersonal skills. This suggests that sports participation not only directly predicts school engagement but also does so through the intermediary mechanism of interpersonal skills. These direct and mediating effects collectively account for 80% and 20% of the total effect,

**Table 4***Mediating Effects Analysis*

| Dependent Variable         | Predictive Variables       | T       |
|----------------------------|----------------------------|---------|
| Interpersonal Skill Degree | Gender                     | -4.3*** |
|                            | Age                        | 2.8***  |
|                            | Father's Education         | -0.6    |
|                            | Mother's Education         | 2.1*    |
|                            | Household Economic         | -1.1    |
|                            | Sports Participation       | 2.2*    |
| School Engagement Degree   | Gender                     | 4.1***  |
|                            | Age                        | 2.8***  |
|                            | Father's Education         | 2.1*    |
|                            | Mother's Education         | -0.35   |
|                            | Household Economic         | 4.2***  |
|                            | Sports Participation       | 3.4***  |
| School Engagement Degree   | Interpersonal Skill Degree | 2.3**   |
|                            | Gender                     | 3.4***  |
|                            | Age                        | 2.3***  |
|                            | Father's Education         | 1.9*    |
|                            | Mother's Education         | -0.1    |
|                            | Household Economic         | 4.3***  |
|                            | Sports Participation       | 2.9***  |

To delve deeper into the mechanism linking sports participation with school engagement among left-behind and migrant children exhibiting low levels of school engagement, this section specifically targeted these demographic subsets as the sample. This selection serves as the foundation for subsequent examinations aimed at discerning the presence of a potential mediating effect.

respectively, thereby confirming the testing of Hypotheses 1 and 2.

Moreover, noteworthy findings emerged from the analysis of control variables. At the individual level, gender and age exhibit significant effects, with boys demonstrating significantly higher levels of school engagement compared to girls, and younger children displaying lower levels of school engagement. The influence of parental characteristics on children's school engagement is nuanced. Specifically, a father's higher level of education positively contributes to children's school engagement, whereas a mother's level of education does not demonstrate a significant effect. Additionally, a stronger familial economic status positively correlates with school attendance.

**Table 5**

*Decomposition of Total Effect, Direct Effect and Mediating Effect*

|                      | <b>Effect Value</b> | <b>Boot CI Lower limit</b> | <b>Boot CI Upper limit</b> | <b>Relative Effect Value</b> |
|----------------------|---------------------|----------------------------|----------------------------|------------------------------|
| Total effect         | 0.08                | 0.03                       | 0.18                       |                              |
| Direct effect        | 0.07                | 0.024                      | 0.145                      | 80%                          |
| The Mediating Effect | 0.01                | 0.006                      | 0.035                      | 20%                          |

## Discussion and Suggestions

The empirical investigation yielded four principal findings. Firstly, both left-behind children and migrant children exhibit significantly lower enrolment rates in comparison to urban children, with the latter group demonstrating notably diminished levels of school engagement. Secondly, heightened engagement in extracurricular sports emerges as a viable strategy to enhance the school engagement of both left-behind and migrant children; increased participation in sports correlates positively with improved school engagement among these demographics. Thirdly, proactive involvement in extracurricular sports among left-behind and migrant children fosters the development of interpersonal skills, consequently bolstering their levels of school engagement. Fourthly, among individual and familial determinants, gender, age, paternal educational attainment, and familial economic status exert notable influences on the level of school engagement observed among these groups.

In fostering the cultivation of interpersonal skills and fostering positive interpersonal relationships, parents of migrant children and caretakers of left-behind children must offer appropriate guidance and actively encourage their participation in post-school sports activities. At the societal level, educational institutions, communities, and local governing bodies ought to enhance the accessibility and inclusivity of various mass sporting initiatives, thereby integrating diverse public sports resources within the societal framework. Encouraging children's involvement in sports activities and expanding opportunities for extracurricular sports engagement are paramount objectives. Moreover, alongside the establishment of sports clubs for children, municipal authorities and urban communities should actively promote the integration of left-behind and migrant children into after-school sports activities alongside their peers, aiming to enhance their interpersonal skills. At the national policy level, the establishment of a comprehensive sports participation network, uniting the realms of home, school, and community, stands as a commendable initiative.

Following the statistical analysis of evaluation data, it was deduced and scrutinized that a more systematic approach to monitoring is imperative. Moreover, the investigation delves into the impact of classification criteria on children's aptitudes and academic achievements, as well as the pivotal strengths and components characterizing urban, left-behind, and migrant children. Tailored strategies can be devised to facilitate the assimilation of migrants into sports initiatives, while also exploring how diverse cultural and societal contexts influence program efficacy.

Partnerships between educational institutions and community stakeholders offer several notable advantages. Schools stand to gain from the specialized knowledge and engagement of community stakeholders in school-related activities, thereby equipping children with skills vital for their future endeavours. Additionally, collaborative efforts in fundraising and the extension of sports opportunities to underserved communities can enhance migrant children's participation in sports and foster increased school engagement. For educational systems to excel, they must harmonize equity with quality, ensuring all children have equitable access to high-quality education. Furthermore, strategies for supporting marginalized students and schools are elucidated, as enhancing their opportunities not only enriches educational systems but also bolsters societal development.

## Conclusion

This study addresses a research gap by exploring the connection between sports participation and school engagement among left-behind and migrant children. It compares school engagement levels among these groups and urban children, aiming to understand existing disparities. Additionally, it investigates how sports participation impacts school engagement, particularly for left-behind and migrant children with low engagement levels, while also examining the mediating role of interpersonal skills in this relationship. Through this analysis, the study seeks to uncover the mechanisms by which sports participation influences school engagement among these children.

The complexities surrounding school engagement challenges encountered by left-behind and migrant children warrant acknowledgment. Analyses concerning the impact of sports participation on the school engagement of these demographics are primarily centred on the Chinese economic landscape and non-economic aspects of well-being. Notably, students have access to abundant information encompassing topics such as sports, educational outcomes, familial dynamics, migration, and health. Additionally, the influence of online media and its potential repercussions on school engagement necessitate

further examination. Given the intricate interplay of factors influencing school engagement among left-behind and migrant children, future research should undertake more comprehensive investigations into these domains.

### Funding

National Social Science Foundation Youth Project: "An Study on Cultural Communication and Values Connection in the Implementation of the Belt and Road Initiative" (Project No. : 20CKS067).

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