Research Square

Preprints are preliminary reports that have not undergone peer review.
They should not be considered conclusive, used to inform clinical practice,
or referenced by the media as validated information.

Parental perceptions of children's physical activity participation: an exploration of satisfaction, school-based engagement, barriers to participation and preferred strategies for improvement

Chidiebele Petronilla Ojukwu
Department of Medical Rehabilitation, University of Nigeria, Enugu Campus
Okolo Chukwunonyelum Judith
Department of Medical Rehabilitation, University of Nigeria, Enugu Campus
Fatai Kadiree Ekundayo
fataidayo.fd@gmail.com

Physiotherapy Department, David Umahi Federal University of Health Sciences (DUFUHS)
Adaeze I Onyekwelu
Physiotherapy Department, David Umahi Federal University of Health Sciences (DUFUHS)
Chiedozie Eleje
Physiotherapy Department, David Umahi Federal University of Health Sciences (DUFUHS)
Juliet Ekowa
Physiotherapy Department, David Umahi Federal University of Health Sciences (DUFUHS)

Research Article

Keywords: Children, Physical activity, Parental perceptions, School-based physical activity, Community participation, Nigeria

Posted Date: April 20th, 2026

DOI: https://doi.org/10.21203/rs.3.rs-8921294/v1

License: This work is licensed under a Creative Commons Attribution 4.0 International License. Read Full License

Additional Declarations: No competing interests reported.

Abstract

Background

Physical activity (PA) is essential for children's physical, cognitive, and psychosocial development; however, many children do not meet recommended PA levels, particularly in low- and middle-income settings. Parents play a critical role in shaping children's PA behaviours, yet limited empirical evidence exists on parental perceptions of PA participation, satisfaction, barriers, and improvement strategies in Nigeria.

Methods

A qualitative study was conducted in Enugu City, Nigeria, using in-depth semi-structured interviews with 20 parents of children who enrolled in nursery, primary, and secondary schools. Participants were recruited purposively from community settings. Interviews were audio-recorded, transcribed verbatim, and analysed using reflexive thematic analysis following Braun and Clarke's framework. Reporting adhered to the Consolidated Criteria for Reporting Qualitative Research (COREQ).

Results

Five themes were identified: (1) parents' perceptions of children's PA participation as context-dependent and variable; (2) satisfaction with PA opportunities existing along a continuum from high satisfaction to clear dissatisfaction; (3) perceived enablers, including accessible spaces, social support, parental involvement, and safety; (4) perceived barriers, notably time constraints, academic prioritisation, limited facilities, safety concerns, and parental availability; and (5) strategies for improvement, emphasising school-based reforms, parental engagement, community collaboration, and policy-level support.

Conclusions

Parental satisfaction with children's PA opportunities was mixed and frequently conditional, with half of participants expressing dissatisfaction, particularly in relation to academic prioritisation, limited time for physical education, and inadequate facilities. These findings suggest that improving both satisfaction and participation may require strengthened school provision, greater parental engagement, and enhanced community infrastructure to better support balanced child development.

Background and Rationale

Physical activity (PA) is an important factor in the improvement of children's cardiometabolic, musculoskeletal, and psychological health, and it supports cognitive and fundamental movement skill development [1]. The World Health Organization (WHO) defines physical activity as any bodily movement produced by skeletal muscles that requires energy expenditure and includes movement undertaken during leisure time, transportation, work, or domestic activities [2]. Physical activity is widely recognised as a cornerstone of healthy child development, contributing to improved attention and memory, stronger muscles, enhanced heart and lung health, prevention of obesity, improved cardiovascular and musculoskeletal health, better social skills, and positive mental well-being [1, 3].

Evidence indicates that participation in physical activity is positively associated with good mental health outcomes, including emotional wellbeing, self-esteem, spirituality, and future expectations [4], as well as improved affective states such as reduced anxiety and depression. Engagement in organised sport has also been linked to behavioural gains, including lower rates of antisocial behaviour, improved school attendance, and higher academic attainment [5]. Beyond these psychosocial benefits, physical activity plays a vital role in health promotion and the prevention of lifestyle-related diseases [2].

Childhood represents a critical developmental stage during which health behaviours, including physical activity, are established [1]; however, a child's activity level is shaped by a complex interaction of individual, social, environmental, and institutional factors. Despite public health efforts and established guidelines, global trends indicate that many children do not meet recommended physical activity levels, with increasing sedentary behaviour [6, 7]. This insufficient participation has been associated with the early onset of non-communicable diseases such as obesity, type 2 diabetes, and high cholesterol, as well as poor academic performance and reduced quality of life [2, 8]. Evidence from Nigeria further suggests that school-based physical activity participation among children and adolescents remains suboptimal, with variability in provision and opportunities across school settings [9].

The World Health Organization recommends that children and adolescents aged 5–17 years engage in at least 60 minutes of moderate-to-vigorous physical activity daily, specifying the frequency, intensity, and duration required to achieve health benefits and reduce health risks [2]. However, evidence suggests that although many parents recognise the importance of physical activity, their knowledge of these recommendations is often limited [10].

The home environment plays a critical role in shaping children's physical activity behaviours, with parents acting as 'choice architects' and gatekeepers who influence access to opportunities for participation [1, 11]. Parental attitudes, beliefs, and perceptions shape children's engagement in both structured and unstructured physical activities by determining the value placed on physical activity, time allocated for active play, and resources invested in extracurricular involvement. Children whose parents actively participate in physical activity with them tend to demonstrate higher levels of engagement, underscoring the importance of parental involvement [12].

Parental perceptions also influence satisfaction with children's physical activity participation, reflecting broader evaluations of school programming, community resources, and societal support for active living. Schools serve as primary environments for physical activity through physical education, recess,

and extracurricular sports; however, parental perspectives on school-based provision vary widely [13]. While some parents report satisfaction with structured programmes, others express concerns regarding the de-prioritisation of physical activity, inconsistent delivery of physical education, limited inclusivity, and barriers within community environments including time constraints, financial limitations, and safety concerns, these patterns are observed within the Nigerian school context [9]. In response to these concerns, parents often highlight potential strategies to enhance participation, including greater prioritisation of physical activity within school curricula, improved infrastructure, strengthened school–parent communication, and expanded access to community-based programmes. Evidence further suggests that approaches which actively involve families may be more effective than those focusing solely on children or schools [14, 15].

Despite the recognised importance of parental influence on children's physical activity behaviours, limited qualitative evidence exists within the Nigerian context examining parents' satisfaction, perceived barriers, and preferred strategies across both school and community settings. Given the central role of parents in shaping children's physical activity behaviours, understanding their perceptions is essential. This study therefore aimed to answer the following question: What are the perceptions of parents in Enugu, Nigeria, regarding their children's physical activity participation, including their satisfaction, identified barriers, and proposed strategies for improvement? To address this aim, a qualitative exploration was conducted to explore parental perceptions of children's physical activity participation in school and community settings, with particular attention to parental satisfaction, perceived barriers, and preferred strategies for improving participation.

Methods

This study formed part of a broader investigation exploring parental perceptions of children's physical activity participation in school and community settings in Enugu City, Nigeria. Recognising the value of qualitative methodology for capturing perceptions, experiences, and meanings in naturalistic contexts, a qualitative research design was adopted to obtain the depth and contextual understanding required to interpret parents' views [16, 17]. This approach was considered appropriate for exploring parental satisfaction, perceived barriers to participation, and preferred strategies for improving children's physical activity engagement. Methodological procedures were guided by established qualitative research principles to ensure the relevance of the research question, appropriateness of methods, transparency of procedures, and credibility of interpretations. This manuscript was prepared in accordance with the Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines [18].

Sample and recruitment

The study population comprised parents (n = 20) of children enrolled in nursery, primary, and secondary schools in Enugu City, Nigeria. Eligible participants were parents who were aware of and regularly involved in their children's school- or community-based physical activity participation and who could communicate effectively in English and/or Igbo, the predominant languages spoken in the study area. Parents whose children had diagnosed cognitive, psychological, or significant physical impairments that could substantially limit physical activity participation were excluded to ensure analytic focus on typical participation patterns within mainstream school contexts.

Purposive sampling was employed to recruit information-rich participants capable of providing detailed insight into the research question [19]. Sample size was guided by the principle of information power, whereby adequacy is determined by the relevance, specificity, and depth of participants' experiences in relation to the study aim [23]. Recruitment continued until thematic sufficiency was achieved, with later interviews contributing depth and clarification rather than substantially new conceptual insights, consistent with qualitative guidance on data adequacy [20]. In line with reflexive thematic analysis, emphasis was placed on richness and analytic depth rather than strict numerical saturation thresholds [25, 26].

Participants were recruited from public settings commonly accessed by parents, including churches, marketplaces, shopping malls, and children's recreational centres across Enugu City, to capture a range of parental perspectives across family and schooling contexts. A total of twenty (n = 20) parents participated in in-depth interviews. The final sample included both mothers and fathers and was considered sufficient to support detailed thematic development. Participants' demographic characteristics are presented in the Results section.

Procedures

Ethical approval

for the study was obtained from the University of Nigeria Teaching Hospital Health Research Ethics Committee (NHREC/05/01/2008B–FWA00002458–IRB00002323). All participants provided written informed consent prior to participation. Participation in the study was entirely voluntary, and no monetary or material incentives were offered.

Data were collected between August and October 2025. Prior to each interview, participants completed a brief demographic questionnaire designed to obtain descriptive information, including age, gender, educational level, and the schooling level of their children. This information was used to contextualise participants' responses and to describe the study sample.

In-depth interviews were used as the primary method of data collection, as they are well suited for exploring perceptions and lived experiences in depth [21]. Fourteen (14) interviews took place via telephone, scheduled in the evenings to accommodate participants' availability and allow for detailed discussion. The other Six (6) interviews were conducted face-to-face at locations chosen by the participants (homes or workplaces) to ensure a comfortable setting.

Interviews were guided by a semi-structured interview guide comprising open-ended questions [22]. This approach facilitated dialogue and allowed participants to express their views freely, while ensuring that key areas were explored consistently across interviews. Topics of interest included parents'

perceptions of their children's physical activity participation, satisfaction with school- and community-based opportunities, perceived barriers to participation, and preferred strategies for improving physical activity engagement. Probing questions were used to clarify responses and explore issues raised by participants in greater depth.

The semi-structured interview guide was developed specifically for this study by the research team based on the study objectives and existing literature on parental perceptions of children's physical activity. The guide was reviewed by members of the research team with qualitative research expertise to ensure clarity, relevance, and alignment with the study aims. The interview guide was pilot-tested with two parents to assess question clarity, flow, and comprehensibility; minor wording adjustments were made to enhance clarity. An English-language version of the interview guide is provided as Supplementary File 1.

Interviews were conducted by the primary researcher (CO) alongside two secondary researchers (KF and AO). The primary led the interviews using the semi-structured guide, while the secondary researchers contributed through follow-up probing and clarification where necessary. With participants' consent, interviews were audio-recorded to facilitate accurate verbatim transcription. Interview duration ranged from 17 to 57 minutes, with an average duration of approximately 32 minutes. The same interview guide was used across telephone and face-to-face interviews to ensure consistency in data collection.

Data analysis

Audio-recorded interviews were transcribed verbatim prior to analysis, and all identifying information was removed to maintain confidentiality. Data were analysed using reflexive thematic analysis following the six-phase framework proposed by Braun and Clarke [24, 25]. This involved familiarisation with the data, generation of initial codes, searching for themes, reviewing themes, defining and naming themes, and producing the final report. A primarily semantic approach was adopted, focusing on explicit meanings expressed by participants, which was appropriate given the study's aim of generating rich insight into parental perceptions.

All transcripts were imported into NVivo qualitative data analysis software to facilitate systematic data management, coding, and organisation [26]. Initial coding was independently conducted by the primary researcher (CO) and one co-author (OJ), both trained in qualitative research methods. The preliminary coding framework was subsequently reviewed and discussed with additional co-authors (CO and AO) to refine code definitions and ensure analytic consistency. Themes were developed collaboratively through iterative team discussions involving KF, OJ, CO, and AO, with discrepancies resolved through consensus. CE and JE contributed to critical review of the thematic structure and interpretive refinement. Throughout the analytic process, reflexive engagement was maintained to ensure that interpretations remained grounded in participants' accounts rather than researchers' preconceived assumptions.

Descriptive statistics were used to summarise participants' demographic characteristics, while qualitative findings formed the primary basis for interpretation and reporting. Participant quotations are presented in the Results section to illustrate key themes and ensure that parents' voices remain central to the findings [18].

Results

Participant characteristics

Twenty (20) parents participated in the study, representing diverse family structures and schooling contexts within Enugu City. Participants were predominantly aged 36–45 years, and most were female (80.0%). Most participants held postgraduate qualifications and were employed as civil servants. The majority reported having one to two children. Children were most commonly aged 1–5 years. Most parents had children of both genders. The majority of children were enrolled in primary education and attended private schools. A detailed summary of participants' sociodemographic characteristics is presented in Table 1.

Table 1
Participants' sociodemographic characteristics.

Variables	Frequency	Percentage
Age (years)		
20–35	7	36.8
36–45	8	42.1
46–55	5	21.1
Gender of parent		
Male	4	20.0
Female	16	80.0
Parents Highest level of education		
Primary Education	2	10.0
University Graduate	8	40.0
Postgraduate	10	50.0
Occupation of Parents		
Civil servant	9	45.0
Unemployed	0	0.0
Self employed	5	25.0
Public servant	6	30.0
Number of kids		
1–2	13	65.0
3–4	6	30.0
5–6	1	5.0
Age of kids (years)		
1–5	9	45.0
6–10	4	20.0
11–15	7	35.0
Gender of kids		
Male	9	45.0
Female	11	55.0
Level of education of kids		
Nursery	4	20.0
Primary	6	30.0
Secondary	10	50.0
Type of school of kids		
Private	13	65.0
Government	5	25.0
Missionary	2	10.0

Five key themes were identified from the interviews: (1) Parents' perceptions of children's physical activity participation, (2) Parents perceived satisfaction with children's physical activity opportunities, (3) Parental perceptions of physical activity enablers, (4) Parental perceptions of barriers to children's physical activity participation, and (5) Parents' perceived strategies for improving children's physical activity participation. An overview of the themes, associated findings, and illustrative participant quotations is presented in Table 2, followed by a detailed narrative account of each theme.

Table 2
Summary of themes, key findings, and illustrative data on parental perceptions of children's physical activity (PA) participation

Theme	Key Sub-themes / Findings	Illustrative Participant Quote
1. Parents' perceptions of PA participation	• PA perceived as context-dependent (varies by home, school, community). • Shaped by parental presence and home environment. • Influenced by child's individual personality and temperament. • Often viewed as irregular or insufficient due to academic demands and fatigue.	"In school, at least… he's very quiet at school… but at home, he's super active…" (P1)
2. Parents' satisfaction with PA opportunities	Satisfaction existed along a continuum: • High satisfaction (20%): Linked to perceived developmental benefits. • Conditional/moderate satisfaction (30%): Described as "adequate for now," with clear limitations. • Dissatisfaction (50%): Attributed to inadequate facilities, academic prioritisation, and safety concerns.	"I am not satisfied… It's in sharp contrast with how I grew up… children are coming home tired, and there's hardly any time for play." (P18)
3. Perceived enablers of PA participation	• Accessible spaces and equipment (playgrounds, home compounds, basic gear). • Supportive social influences (teachers, peers, siblings, extended family). • Active parental facilitation (intentional involvement, supervision, transport). • Perceived safety and routine enabling consistent engagement.	"Parents are key... registering kids in activities, engaging in conscious play." (P7)
4. Perceived barriers to PA participation	• Institutional and time constraints (long school hours, PE not prioritised). • Limited facilities and space, including safety concerns. • Parental availability limited by work and household responsibilities. • Child-related factors (health status, shyness, preference for screens).	"The timetable is tight, and PE is not every week, so it affects participation." (P5)
5. Strategies for improving PA participation	Multi-level recommendations: • School-level: Increase PE time, diversify activities, improve facilities. • Parent-level: Model active behaviour, reduce screen time, create opportunities. • Government/community-level: Invest in public parks, ensure safety, organise events. • Holistic approach: Balance academics with well-being and child individuality.	

Theme 1: Parents' perceptions of children's physical activity participation

Parents consistently described their children's physical activity participation as dynamic and context-dependent rather than fixed. Activity levels were perceived to vary across home, school, and community environments, with several parents noting behavioural differences between structured school settings and more relaxed home contexts. As one parent explained:

"In school… he's very quiet… but at home, he's super active." (P1, Government)

Parents also emphasised that participation was shaped by environmental structure and parental involvement. Some described intentionally creating opportunities for engagement, while others perceived that household dynamics could either encourage or constrain children's expressiveness:

"At home and in church, the environment is structured; he participates because I intentionally involve him in exercises and activities." (P20, Missionary)

Children's individual temperament was frequently cited as influencing engagement. Parents attributed differences in activity levels to personality traits such as being energetic, shy, outgoing, or reserved:

"I will describe her as super active… very active in both school and community." (P14, Government)

Although many parents acknowledged variability in activity type and intensity, concerns were raised regarding irregular participation, particularly due to structured routines and competing demands. Overall, physical activity was constructed as situational and influenced by contextual, familial, and individual

factors rather than driven solely by children's intrinsic motivation.

Theme 2: Parents perceived satisfaction with children's physical activity opportunities

This theme captures how parents evaluated their level of satisfaction with their children's physical activity (PA) opportunities across school and community contexts. Satisfaction emerged as a graded and context-dependent judgement rather than a fixed position. Parents weighed the availability, frequency, and quality of PA against their expectations for balanced child development. Their evaluations reflected an ongoing negotiation between appreciation of existing provision and concern about its limitations.

Parents frequently expressed their views using numerical ratings (e.g., "7/10," "10/10") or percentage estimates, indicating deliberate appraisal rather than passive acceptance. These ratings revealed a continuum of satisfaction ranging from high approval to clear dissatisfaction.

High Satisfaction

A minority of participants (4 of 20) reported high satisfaction with their children's PA opportunities. These parents perceived strong alignment between their expectations and the provision available in schools and communities. Satisfaction was often linked to observable developmental benefits such as improved confidence, skill acquisition, and social interaction.

"I am very satisfied with opportunities provided in school and community; I will grade it 10/10." (P17, Private)

"I am really satisfied with the opportunities provided at school; they help develop their skills and personalities. I would grade it 8/10." (P13, Missionary)

For these parents, PA was viewed as contributing meaningfully to holistic development rather than serving merely recreational purposes.

Moderate or Conditional Satisfaction

Several parents (6 of 20) expressed moderate or conditional satisfaction. While acknowledging that opportunities existed, they perceived them as insufficient in frequency or scope. Satisfaction in this group was typically qualified, suggesting acceptance shaped by contextual constraints rather than full endorsement. (Table 3)

"On a scale of 0 to 10… I'd say about 7. The school does its best, but I wish they had more frequent sports programs." (P5, Private)

"Both school and community opportunities are above average, though school has little time for play. I'd grade it about 6/10." (P9, Private)

Even when ratings were relatively high, parents often introduced reservations, indicating that adequacy did not equate to optimal provision.

Dissatisfaction

Half of the participants (10 of 20) expressed dissatisfaction with current PA opportunities. Dissatisfaction centred primarily on structural issues, including limited time allocation for physical education, inadequate playground facilities, restricted access to safe community spaces, and the perceived prioritisation of academics over physical development as seen in Table 3.

"I wasn't satisfied with the level of physical activities going on… The school not building adequate playgrounds… So, the level of physical activity going on is not that satisfactory." (P3, Private)

"In school, maybe a seven. But in the community, I'll say three. There's really no playground or safe space around." (P6, Government)

Some parents explicitly rated their satisfaction as low:

"I'm actually not satisfied… I'll grade it four out of ten… not where I want them to be yet." (P8, Private)

Across dissatisfied accounts, concern focused less on the total absence of activity and more on its irregularity, limited duration, or poor infrastructural support. Several parents emphasised that current provision did not adequately counterbalance academic pressure or support well-rounded development.

Across all satisfaction levels, parents consistently framed physical activity as an essential component of children's physical, social, and emotional well-being. Satisfaction was therefore judged not merely by the presence of activities, but by their regularity, inclusivity, safety, and developmental relevance. These evaluative positions shaped how parents later articulated perceived barriers and proposed improvement strategies, discussed in subsequent themes.

Table 3
Distribution of Parental Satisfaction Levels (n = 20)

Satisfaction Category	Frequency (n)	Percentage (%)
High Satisfaction	4	20%
Moderate/Conditional Satisfaction	6	30%
Dissatisfaction	10	50%
Total	**20**	**100%**

Theme 3: Parental perceptions of physical activity enablers

This theme describes parents' perceptions of the factors that facilitated their children's participation in physical activity (PA) across school, home, and community contexts. Parents described several conditions that supported engagement, including access to physical space and equipment, encouragement from significant others, parental involvement, and perceptions of safety.

Access to Space and Equipment

Parents frequently identified the availability of physical space as an important facilitator of participation. Playgrounds, open school fields, home compounds, and indoor household areas were described as enabling children to engage in both structured and unstructured activities.

"The school has a small field and a few balls. At home, we have a compound where he can play football and ride his bicycle." (P5, Private)

"In school, they have a football pitch, basketball court, and open field. At home, they use our compound for play." (P20, Missionary)

These accounts indicate that access to space and basic equipment was viewed as supporting children's opportunities to be active.

Supportive Social Influences

Parents also highlighted the role of teachers, peers, siblings, and extended family members in encouraging participation. Social interactions were described as motivating and reinforcing engagement.

"At school, his classmates and PE teacher. At home, his cousins and sometimes me or his dad." (P5, Private)

"Teachers can encourage children, especially those less active. Siblings and neighbors can encourage play." (P7, Government)

These descriptions suggest that children's participation was influenced by social encouragement within both school and home environments.

Parental Involvement

Parents described their own involvement as contributing to children's participation. This included registering children for organised activities, supervising play, and accompanying them to recreational spaces.

"Parents are key... registering kids in activities, engaging in conscious play." (P7, Government)

"I normally take kids all the way to UNEC just to play football." (P15, Private)

These accounts demonstrate that some parents actively supported and facilitated their children's engagement in physical activity.

Perceived Safety and Structure

Perceived safety was also identified as important in enabling participation. Parents expressed greater comfort in allowing activity where supervision or structured organisation was present.

"At home, it's safe because we supervise." (P5, Private)

"School activities are structured and monitored, ensuring consistent engagement." (P13, Missionary)

These responses indicate that confidence in supervision and environmental control influenced parents' willingness to encourage participation.

Overall, parents identified multiple factors that they believed supported their children's participation in physical activity. These enabling conditions operated across home, school, and community contexts and were often described as interconnected.

Theme 4: Parental perceptions of barriers to children's physical activity participation

This theme reflects parents' perceptions of the factors that limited their children's participation in physical activity (PA) across school, home, and community contexts. Parents described barriers related to time constraints, limited facilities and space, parental availability, sociocultural influences, and child-related characteristics.

Time Constraints

Time was the most frequently mentioned barrier. Parents described school schedules as restrictive, with limited allocation for physical education (PE). Some reported that PE periods were occasionally replaced with academic lessons. Long school hours, homework, and extracurricular academic demands were also perceived to reduce children's energy and availability for play after school.

"The timetable is tight, and PE is not every week, so it affects participation." (P5, Private)

"They leave home at 6:55–7:05 a.m. and return between 6:18–6:40 p.m., so they are too tired to play." (P18, Government)

"The school doesn't allocate enough time for PE. Some teachers even use PE periods to complete other lessons." (P4, Private)

These accounts indicate that academic scheduling was viewed as limiting regular participation in structured and unstructured activity.

Limited Facilities and Environmental Constraints

Parents also identified inadequate infrastructure as a barrier. Schools and communities were described as lacking sufficient playgrounds, safe open spaces, or accessible recreational facilities. In some cases, concerns about safety or maintenance limited the use of available spaces.

"Facilities are a barrier… school facilities not always accessible." (P1, Government)

"Schools lack sufficient space; community parks have disappeared or been monetized; unsafe roads limit outdoor play." (P15, Private)

"Environmental safety is a concern… no trained personnel to supervise." (P16, Government)

These responses suggest that environmental conditions influenced parents' willingness to allow participation.

Parental Availability

Work demands and household responsibilities were also described as limiting factors. Several parents noted difficulty in supervising or accompanying children to recreational spaces due to competing obligations.

"As a working parent, it's difficult to take them out often." (P7, Government)

"I am not always there to supervise or take them to play." (P17, Private)

These accounts highlight the role of parental time constraints in shaping participation opportunities.

Sociocultural and Community Influences

A small number of parents referred to cultural beliefs, religious practices, or community norms as influencing acceptable activities or access to facilities.

"Our culture and our beliefs… has constrained them from doing some things." (P1, Government)

"Most facilities require payment." (P7, Government)

These comments indicate that broader contextual factors were perceived as shaping participation opportunities.

Child-Related Factors

Parents also identified child-specific characteristics as influencing engagement. Health status, temperament, mood, and preferences were described as affecting willingness or ability to participate.

"The major challenge is health… when they are fine and okay, nothing stops." (P3, Private)

"He's an introvert… when he's not feeling well, he avoids outdoor games." (P4, Private)

"Screen time is a barrier for him." (P20, Missionary)

These responses suggest that participation was perceived as varying depending on children's individual characteristics and circumstances.

Overall, parents described multiple factors that they believed limited their children's participation in physical activity. These barriers were identified across institutional, environmental, familial, and individual domains.

Theme 5: Parental perceptions of strategies for improving children's physical activity participation

This theme describes parents' suggestions for improving children's physical activity (PA) participation across school, home, and community contexts. Parents proposed strategies targeting school systems, parental practices, community collaboration, and government support.

Strengthening School-Based Provision

Parents frequently identified schools as a key setting for improvement. Given the amount of time children spend there, many suggested increasing time allocated for physical education (PE), expanding extracurricular options, and improving facilities.

"Amend school policies to allow regular physical activity, not just once a week. Reintroduce trained PHE instructors." (P18, Female, Government)

"More time for PE and better equipment like balls, skipping ropes... building better playgrounds and maintaining open fields." (P6, Female, Government)

"Schools should have a well-marked large plot of land for physical activities… add inter-house sports and athletics." (P5, Female, Private)

Some parents also recommended reducing excessive academic focus to create space for broader developmental activities.

"Government/Ministry of Education should reduce school subjects and allocate more time to outdoor activities." (P9, Female, Private)

These accounts indicate that parents viewed institutional reform within schools as central to improving participation.

Parental Responsibility and Engagement

Parents also reflected on their own roles in supporting children's activity. Several suggested increasing parental involvements, limiting screen time, and creating structured opportunities for play at home.

"Parents should reduce screen time, find time to take children out." (P7, Female, Government)

"Parents should encourage their children and even join them sometimes in playing or dancing." (P6, Female, Government)

"Parents should take personal responsibility to create opportunities; dedicate time for activities like walks or trips." (P15, Male, Private)

These responses suggest that parents recognised their influence in shaping children's daily routines and activity patterns.

Government and Community Support

Parents also emphasised the need for broader structural support. Several participants called for government investment in public recreational spaces and improved infrastructure.

"Government should provide spaces close to communities for football, table tennis, handball, etc." (P3, Female, Private)

"Government should provide playgrounds, parks, secure areas." (P13, Female, Missionary)

"School management and proprietors should invest in proper playgrounds and sports infrastructure." (P11, Female, Private)

In addition, some parents advocated collaboration between families, schools, and community leaders to organise local sports activities.

"Teachers, parents, and community members should come together… to encourage participation and organize community sports." (P3, Female, Private)

These suggestions indicate that parents viewed improvement as extending beyond individual households.

Child-Centred Approaches

Several parents highlighted the importance of recognising children's individuality and ensuring that physical activity supports overall well-being rather than competing with academic expectations.

"Allow a child to be a child… don't deny a child his or her childhood experience." (P1, Female, Government)

"Observe individual child's uniqueness and tailor activities accordingly." (P14, Female, Government)

These accounts reflect parents' desire for approaches that consider children's interests and developmental needs.

Overall, parents proposed strategies spanning school policy, parental engagement, community collaboration, and government support. Their suggestions reflect multiple entry points for improving children's physical activity participation across contexts.

Discussion

This study explored parental perceptions of children's physical activity (PA) participation in school and community settings, focusing on patterns of engagement, levels of satisfaction, perceived barriers, and suggested strategies for improvement. Overall, findings indicate that parents perceive children's PA participation as context-dependent, shaped by school structures, family routines, environmental conditions, and child-specific characteristics.

Participant Characteristics and Context

The sample was predominantly female, reflecting the sociocultural context in which mothers often assume primary responsibility for childcare and daily activity coordination. This pattern aligns with previous Nigerian studies highlighting mothers' central role in children's health-related decisions [27]. Participants were largely well educated, with most holding university or postgraduate qualifications, suggesting a relatively high level of health literacy. Consequently, parental critiques of PA provision likely represent informed assessments rather than limited awareness, consistent with findings linking higher parental education to greater expectations of institutional support for PA [28].

Most children were of primary school age, a critical developmental period for establishing lifelong PA habits. Despite a high proportion attending private schools, parents continued to report insufficient playtime, limited facilities, and excessive academic pressure. This suggests that PA challenges extend beyond resource availability and reflect broader systemic prioritisation of academic outcomes, a trend documented globally [29].

Parental Perceptions of Children's Physical Activity

Parents described children's PA as strongly influenced by environmental context, with marked differences observed between home and school settings. Some children were perceived as highly active at home but reserved at school, while others showed the opposite pattern. This highlights the role of institutional structure and social climate in shaping children's movement behaviour. Similar context-related variability has been reported in previous research, demonstrating that children's PA levels differ substantially across settings [30].

Parents also adopted a broad and inclusive understanding of PA, encompassing organised sports, informal play, household chores, singing, and dancing. This aligns with the World Health Organization's definition of PA, which recognises all forms of bodily movement that require energy expenditure [2]. Such perceptions suggest that PA promotion strategies may be more effective when integrated into daily routines rather than limited to formal exercise programmes.

Family dynamics and child temperament were identified as key determinants of participation. Parents described how household routines, parental presence, and individual personality traits (e.g., extroversion or shyness) shaped children's willingness to engage. These findings are consistent with family systems theory [31] and research demonstrating that temperament significantly predicts PA participation [32].

Parental Satisfaction with Physical Activity Opportunities

Parental satisfaction existed along a continuum, with variations reflecting how closely available opportunities aligned with parents' expectations for their children's development. Some parents linked higher satisfaction to school choice or personal involvement in facilitating physical activity. In contrast, moderate and low satisfaction were associated with perceived lack of control over school policies, community infrastructure, and safety. Similar patterns have been reported in previous research, where parental expectations and perceived adequacy of provision influence overall satisfaction with children's physical activity opportunities [33].

A prominent source of dissatisfaction was the perceived overemphasis on academics at the expense of physical play. Parents frequently compared their children's experiences unfavourably with their own childhoods, expressing concern about reduced opportunities for free play and increased fatigue due to long school hours and homework demands. This generational contrast reflects broader concerns about the global decline in unstructured play and its implications for child health [29].

Enablers and Barriers to Physical Activity

Parents identified accessible space, basic equipment, social support, and parental involvement as key enablers of PA. These findings align with socio-ecological models emphasising the importance of supportive physical and social environments [30]. Conversely, parents described barriers across institutional, environmental, familial, and individual domains, including time constraints, limited facilities, safety concerns, parental work commitments, financial costs, child health, temperament, and competing screen-based activities.

Time pressure emerged as the most pervasive barrier, stemming from both school schedules and family routines. This dual constraint mirrors global evidence linking increased academic demands and parental work patterns to reduced PA opportunities for children [34]. Safety concerns and limited access to affordable, well-maintained recreational spaces further compounded these challenges, particularly within community settings [3].

Recommendations and Strategies for Improvement

Parents proposed practical, multi-level strategies to enhance children's PA participation. Schools were viewed as central agents for change, with recommendations including increased PE time, diversified activity options, trained instructors, and improved facilities. These suggestions align with the WHO's Whole School Approach to PA promotion [35].

Parents also acknowledged their own responsibility, advocating for reduced screen time, active modelling, and deliberate creation of PA opportunities at home. However, they emphasised that sustainable improvement requires government involvement, including investment in public parks, policy enforcement, and equitable access to PA resources. Such system-level interventions are widely recognised as critical for population-wide PA promotion [36].

Ultimately, parents called for a shift toward child-centred and holistic approaches that balance academic achievement with physical, social, and emotional well-being. This perspective reinforces longstanding developmental arguments that play and physical activity are fundamental, rather than peripheral, to healthy childhood development [37].

Strengths, limitations, and trustworthiness

This study has several methodological strengths. The qualitative design enabled an in-depth exploration of parental perceptions, allowing participants to articulate nuanced experiences of children's physical activity across school, home, and community contexts. Inclusion of parents of children across nursery, primary, and secondary school levels enhanced the breadth of perspectives across key developmental stages. The use of semi-structured interviews supported consistency while allowing flexibility to explore individual experiences in detail. Trustworthiness was strengthened through reflexive thematic analysis, development of rich and sufficiently detailed themes, and the use of verbatim participant quotations to support analytic interpretations. Adherence to the Consolidated Criteria for Reporting Qualitative Research (COREQ) guidelines further enhanced transparency and rigour.

Several limitations should be considered when interpreting the findings. Data were based on parental self-reports and may be influenced by recall bias or social desirability. The predominance of mothers in the sample may have limited the representation of fathers' perspectives, although this reflects caregiving norms within the study context. Participants were recruited from a single urban location, which may limit transferability to rural or differently resourced settings. Additionally, children's physical activity was not objectively measured, and findings therefore reflect parental perceptions rather than direct behavioural observation.

Overall, credibility was supported through thematic sufficiency, consistency across participant accounts, and alignment between data and interpretation. Transferability is facilitated by detailed description of the study context and participant characteristics, allowing readers to assess applicability to

comparable settings.

Conclusions and implications

This study demonstrates that parents perceive children's physical activity participation as dynamic and context-dependent, shaped by school structures, family routines, environmental conditions, and individual child characteristics. Parental satisfaction with physical activity opportunities varied along a continuum, with dissatisfaction frequently linked to academic prioritisation, limited time, inadequate facilities, and safety concerns. Parents identified multiple enablers and barriers operating across school, home, and community contexts.

The findings have important implications for policy and practice. Schools should prioritise regular, protected physical education, diversify activity options, and ensure access to safe and well-maintained facilities. Parents play a critical facilitative role and should be supported to integrate physical activity into daily routines while limiting excessive screen time. At the community and policy levels, investment in accessible public play spaces, improved safety, and supportive infrastructure is essential to promote equitable participation.

Overall, promoting children's physical activity requires coordinated, multi-level strategies that balance academic demands with physical, social, and emotional well-being. Physical activity should be recognised as a fundamental component of healthy childhood development rather than a competing educational priority.

Abbreviations

COREQ
Consolidated Criteria for Reporting Qualitative Research
NVivo
Qualitative Data Analysis Software (QSR International)
PA
Physical Activity
PE
Physical Education
PHE
Physical and Health Education
PTA
Parent–Teacher Association
SES
Socioeconomic Status
UNEC
University of Nigeria, Enugu Campus
WHO
World Health Organization

Declarations

Funding

This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Ethics approval and consent to participate

Ethical approval for this study was obtained from the University of Nigeria Teaching Hospital Health Research Ethics Committee (NHREC/05/01/2008B–FWA00002458–IRB00002323). The study was conducted in accordance with the ethical principles outlined in the Declaration of Helsinki for research involving human participants. Written informed consent was obtained from all participants prior to data collection. Participation was voluntary, and no monetary or material incentives were provided.

Consent for publication

Not applicable.

Competing interests

The authors declare that they have no competing interests.

Funding:

None.

Author Contribution

CO conceived the original idea for the study. CO, OJ, OA, and EC contributed to the development and refinement of the research questions and study design. OJ and OA conducted the data collection. KF performed the data analysis and drafted the manuscript. All authors critically reviewed the manuscript and approved the final version for publication.

Acknowledgements

The authors would like to thank all parents who participated in the study for sharing their time and experiences.

Data Availability

The datasets used and/or analysed during the current study are available from the corresponding author on reasonable request.

References

1. Noonan RJ, Boddy LM, Knowles ZR, Fairclough SJ. Cross-sectional associations between high-deprivation home and neighbourhood environments, and health-related variables among Liverpool children. BMJ Open. 2016;6(1):e008693.
2. Bull FC, Al-Ansari SS, Biddle S, Borodulin K, Buman MP, Cardon G, et al. World Health Organization 2020 guidelines on physical activity and sedentary behaviour. Br J Sports Med. 2020;54(24):1451–62.
3. Singh A. Physical Activity and Performance at School. Arch Pediatr Adolesc Med. 2012;166(1):49.
4. Stead R, Nevill M. The impact of physical education and sport on education outcomes: a review of literature. Loughborough (UK): Youth Sport Trust & Institute of Youth Sport; 2010. Available from: https://www.icsspe.org/system/files/Stead%20and%20Neville%20The%20Impact%20of%20Physical%20Education%20and%20Sport%20on%20Educatior
5. Eime RM, Young JA, Harvey JT, Charity MJ, Payne WR. A systematic review of the psychological and social benefits of participation in sport for children and adolescents: informing development of a conceptual model of health through sport. Int J Behav Nutr Phys Activity. 2013;10(1):98.
6. Guthold R, Stevens GA, Riley LM, Bull FC. Global trends in insufficient physical activity among adolescents: a pooled analysis of 298 population-based surveys with 1·6 million participants. Lancet Child Adolesc health. 2020;4(1):23–35.
7. World Health Organization. Global status report on physical activity 2022. Geneva: World Health Organization. 2022. Available from: https://www.who.int/publications/i/item/9789240059153
8. Donnelly JE, Hillman CH, Castelli D, Etnier JL, Lee S, Tomporowski P, et al. Physical Activity, Fitness, Cognitive Function, and Academic Achievement in Children: A Systematic Review. Med Sci Sports Exerc. 2016;48(6):1197–222.
9. Fatai K, Ukwuoma M, Adaeze O, Eleje C, Ekowa J, Nwosu A et al. School-based physical activity levels among school children and Adolescents in Nigeria: A scoping review [Internet]. Springer Science and Business Media LLC; 2026 Jan [cited 2026 Jan 24]. Available from: https://doi.org/10.21203/rs.3.rs-8670735/v1
10. Corder K, Crespo NC, van Sluijs EMF, Lopez NV, Elder JP. Parent awareness of young children's physical activity. Prev Med. 2012;55(3):201–5.
11. Crawford D, Cleland V, Timperio A, Salmon J, Andrianopoulos N, Roberts R, et al. The longitudinal influence of home and neighbourhood environments on children's body mass index and physical activity over 5 years: the CLAN study. Int J Obes. 2010;34(7):1177–87.
12. Yao CA, Rhodes RE. Parental correlates in child and adolescent physical activity: a meta-analysis. Int J Behav Nutr Phys Act. 2015;12:10.
13. Jones RA, Hinkley T, Okely AD, Salmon J. Tracking physical activity and sedentary behavior in childhood: a systematic review. Am J Prev Med. 2013;44(6):651–8.
14. van Sluijs EMF, Kriemler S, McMinn AM. The effect of community and family interventions on young people's physical activity levels: a review of reviews and updated systematic review. Br J Sports Med. 2011;45(11):914–22.
15. Brown HE, Atkin AJ, Panter J, Wong G, Chinapaw MJM, van Sluijs EMF. Family-based interventions to increase physical activity in children: a systematic review, meta-analysis and realist synthesis. Obes reviews: official J Int Association Study Obes. 2016;17(4):345–60.
16. Creswell JW, Poth CN. Qualitative inquiry and research design: choosing among five approaches. 4th ed. Thousand Oaks: SAGE; 2018.
17. Denzin NK, Lincoln YS. The SAGE handbook of qualitative research. 5th ed. Thousand Oaks: SAGE; 2018.
18. Tong A, Sainsbury P, Craig J. Consolidated criteria for reporting qualitative research (COREQ): a 32-item checklist for interviews and focus groups. Int J Qual health care: J Int Soc Qual Health Care. 2007;19(6):349–57.
19. Palinkas LA, Horwitz SM, Green CA, Wisdom JP, Duan N, Hoagwood K. Purposeful Sampling for Qualitative Data Collection and Analysis in Mixed Method Implementation Research. Adm Policy Ment Health. 2015;42(5):533–44.
20. Guest G, Bunce A, Johnson L. How Many Interviews Are Enough? Field Methods. 2006;18(1):59–82.
21. Kvale S, Brinkmann S. InterViews: learning the craft of qualitative research interviewing. 2nd ed. Thousand Oaks: SAGE; 2009.
22. Patton MQ. Qualitative research and evaluation methods. 4th ed. Thousand Oaks: Sage; 2015.

23. Malterud K, Siersma VD, Guassora AD. Sample size in qualitative interview studies: guided by information power. Qual Health Res. 2016;26(13):1753–60. 10.1177/1049732315617444.
24. Braun V, Clarke V. Using thematic analysis in psychology. Qualitative Res Psychol. 2006;3(2):77–101.
25. Braun V, Clarke V. One size fits all? What counts as quality practice in (reflexive) thematic analysis? Qualitative Res Psychol. 2020;18(3):328–52.
26. QSR International. NVivo. Version 12. Burlington: QSR International; 2020.
27. Ogunlesi TA, Olanrewaju DM. Socio-demographic Factors and Appropriate Health Care-seeking Behavior for Childhood Illnesses. J Trop Pediatr. 2010;56(6):379–85.
28. Lareau A. Unequal Childhoods: Class, Race, and Family Life. 2nd ed. University of California Press; 2011.
29. Gray P. The decline of play and the rise of psychopathology in children and adolescents. Am J Play. 2011;3(4):443–63.
30. Sallis JF, Prochaska JJ, Taylor WC. A review of correlates of physical activity of children and adolescents. Med Sci Sports Exerc. 2000;32(5):963–75.
31. Minuchin S. Families and family therapy. Cambridge: Harvard University Press; 1985.
32. Morgan K, Hallingberg B, Littlecott H, Murphy S, Fletcher A, Roberts C, et al. Predictors of physical activity and sedentary behaviours among 11–16 year olds: Multilevel analysis of the 2013 Health Behaviour in School-aged Children (HBSC) study in Wales. BMC Public Health. 2016;16:569.
33. Jago R, Solomon-Moore E, Macdonald-Wallis C, Thompson JL, Lawlor DA, Sebire SJ. Association of parents' and children's physical activity and sedentary time in Year 4 (8–9) and change between Year 1 (5–6) and Year 4: a longitudinal study. Int J Behav Nutr Phys Act. 2017;14(1):110.
34. Tremblay MS, Barnes JD, González SA, Katzmarzyk PT, Onywera VO, Reilly JJ, et al. Global Matrix 2.0: Report Card Grades on the Physical Activity of Children and Youth Comparing 38 Countries. J Phys Act Health. 2016;13(11 Suppl 2):S343–66.
35. World Health Organization. Global action plan on physical activity 2018–2030: more active people for a healthier world. Geneva: World Health Organization. 2018. Available from: https://www.who.int/publications/i/item/9789241514187
36. Brownson RC, Haire-Joshu D, Luke DA. Shaping the context of health: a review of environmental and policy approaches in the prevention of chronic diseases. Annu Rev Public Health. 2006;27:341–70. 10.1146/annurev.publhealth.27.021405.102137.
37. Pellegrini AD. Research and policy on children's play. Child Dev Perspect. 2009;3(2):131–6. 10.1111/j.1750-8606.2009.00092.x.

Supplementary Files

This is a list of supplementary files associated with this preprint. Click to download.

- SUPPLEMENTARYMATERIAL1InterviewGuide.pdf