ISSN 2964-3902 (Online)
SUJANA: Journal of Education and Learning Review
https://journal.jfpublisher.com/index.php/sujana
Vol. 5, Issue. 2, (2026)
doi.org/10.56943/sujana.v5i2.973

Teachers' Perceptions of Inadequate Outdoor Play Among Preschool Children in Aba, Abia State, Nigeria

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ABSTRACT

Growing global and national concerns highlight the declining opportunities for outdoor play in early childhood education, despite its established importance for children's holistic development. In many Nigerian preschool settings, increasing academic demands, safety concerns, and infrastructural limitations have reduced the emphasis on play-based learning. This study examined preschool teachers' perceptions of inadequate outdoor play provision in Aba, Abia State, Nigeria, with focus on availability, developmental implications, and implementation constraints. A descriptive survey design was adopted. The population comprised 453 teachers in registered public and private preschools. Using multistage sampling informed by Yamane's formula (5% margin of error), 212 questionnaires were distributed, of which 200 valid responses were analyzed. Data were analyzed using descriptive statistics and chi-square tests. Findings revealed that outdoor play provision is generally inadequate, characterized by limited space, restricted daily access, insufficient time allocation, and safety concerns (cluster mean = 2.26). Teachers agreed that constrained outdoor play negatively affects children's physical activity, peer interaction, classroom behaviour, and attention regulation (cluster mean = 3.47). No significant subgroup differences were observed. The study identifies a disconnect between teachers' recognition of the developmental value of outdoor play and the structural conditions influencing its implementation. It underscores the need to strengthen facility standards and reinforce play-based pedagogy in early childhood education settings.

Keywords: *Child Development; Early Childhood Education; Outdoor Play; Play-Based Learning; Preschool Teachers*

INTRODUCTION

Children are naturally curious and eager to learn from the moment they begin to interact with their environment (Shah et al., 2023). This innate curiosity drives exploration and learning, allowing young children to construct knowledge and develop skills through firsthand experiences (Jirout et al., 2024). Agustini et al. (2024) believed that early childhood programs play a critical role in nurturing this curiosity, as the quality of such programs is reflected in how effectively they support and encourage exploration, engagement, and discovery. When teachers implement developmentally appropriate practices, they create environments in which children remain actively engaged and have opportunities to reach their full developmental potential. Among the various strategies that support children's holistic growth, outdoor play holds a central and indispensable position. Outdoor play is not merely a leisure activity; it serves as a primary medium through which children develop physical competencies, build cognitive and social skills, and regulate emotional responses (Zhu et al., 2024). In outdoor environments, children engage in gross and fine motor activities, explore natural surroundings, interact with peers, and exercise a degree of autonomy that structured classroom settings rarely afford (Davenport et al., 2025). These experiences are essential to development, providing foundational learning that cannot be replicated entirely within indoor or highly structured contexts.

According to Haupt et al. (2024), the National Association for the Education of Young Children (NAEYC) recommends that preschool-aged children participate in a minimum of 60 to 90 minutes of outdoor play daily. This recommendation is grounded in extensive research demonstrating the developmental necessity of regular physical activity and unstructured play during the early years. Despite this guidance, a common trend over recent decades has been a significant reduction in the time children spend engaging in outdoor play. Several factors contribute to this decline, including urbanization, the loss of accessible open spaces, increased engagement with screen-based leisure activities, heightened parental concerns about safety, and a gradual curricular shift in preschools toward indoor, academically focused instruction. Of these, the emphasis on structured literacy and numeracy inside the classroom has had particularly profound effects on children's outdoor experiences, often relegating outdoor play to a marginal or optional activity (Biino et al., 2025; Dodd et al., 2023; Sugiyama et al., 2023). This shift is especially problematic, as research consistently shows that outdoor play is not only beneficial but essential for physical, cognitive, and socio-emotional development in early childhood.

In Nigeria, the National Policy on Education explicitly endorses play-based, activity-centered approaches within early childhood settings. However, the gap between policy and practice remains wide, particularly in urban areas where preschools often prioritize indoor academic preparation over experiential learning.

Many Nigerian preschools operate with limited or no dedicated outdoor spaces, treating outdoor play as secondary to formal instruction. Aba, the commercial capital of Abia State in southeastern Nigeria, exemplifies these challenges. The city is characterized by high population density, intense commercial land use, and limited affordable space for educational infrastructure. Numerous preschools in Aba are housed in converted residential buildings, with little or no outdoor areas for children. Safety concerns, such as proximity to busy roads, inadequate perimeter security, and poorly maintained grounds, further restrict opportunities for outdoor play. Cultural expectations exacerbate these structural limitations, as parents and school proprietors often regard academic instruction as the primary purpose of preschool education, marginalizing play-based and experiential learning.

This perception aligns with findings from previous studies which indicate that in many low- and middle-income countries, preschool education is increasingly formalized, with a strong emphasis on literacy and numeracy at the expense of developmental play. Scholars have consistently reported that outdoor play is frequently undervalued, viewed as non-essential, or even considered a distraction from "serious" learning, thereby limiting children's opportunities for physical exploration, creativity, and social interaction.

Some studies have also demonstrated that inadequate outdoor play provision is closely linked to infrastructural deficits, safety concerns, and policy implementation gaps (Hanipah et al., 2023; Lodewijk et al., 2023). For instance, research across Nigerian early childhood settings shows that many schools lack designated play spaces, appropriate equipment, and structured time for outdoor activities. Similarly, international studies corroborate that even where policies support play-based learning, practical constraints such as overcrowded classrooms, limited funding, and heightened concerns about child safety restrict effective implementation. These findings reinforce the argument that the challenge is not merely attitudinal but also systemic, requiring coordinated interventions that address both cultural perceptions and material conditions in early childhood education environments.

Despite these observable conditions, no empirical studies have specifically investigated outdoor play provision or teachers' perceptions of its developmental consequences within the Aba preschool context. Understanding teachers' perspectives is particularly important because they are the practitioners most directly responsible for children's daily educational experiences. As Cronqvist (2025) argues, teachers' perceptions influence how time, space, and pedagogical strategies are allocated, ultimately shaping children's access to critical developmental opportunities. Understanding this context-specific reality is essential, as findings from other regions may not adequately capture the interplay between infrastructural limitations, socio-economic pressures, and educational practices that shape early childhood experiences in Aba.

Examining the issue within the Aba context provides locally grounded evidence that can inform policy decisions, school management practices, and teacher training programmes in Abia State and similar settings. Without such empirical insight, interventions may remain generalized and ineffective, failing to address the specific needs and constraints of the area. Therefore, this study is important not only for filling a scholarly gap but also for generating practical knowledge that can support the design of context-responsive strategies to improve outdoor play provision and promote holistic child development.

This study seeks to address the identified gap in the Nigerian literature by systematically examining preschool teachers' perceptions of outdoor play in Aba. Specifically, the research aims to: (1) determine teachers' perceptions of the availability and adequacy of outdoor play facilities and time allocation; (2) examine teachers' perceptions of the physical, cognitive, and socio-emotional developmental impacts of insufficient outdoor play; (3) identify the primary barriers that teachers perceive as preventing adequate outdoor play provision; and (4) determine whether teachers' perceptions differ significantly across demographic variables, including school type, teaching experience, and gender. By focusing on these objectives, the study contributes both to the empirical understanding of outdoor play provision in urban Nigerian preschools and to practical strategies for enhancing early childhood education. Addressing these gaps is important, as it supports educational practices with policy intentions, supports children's holistic development, and equips teachers with the knowledge and tools needed to create enriched learning environments. This research underscores the critical role of outdoor play in early childhood education and highlights the importance of considering contextual and cultural factors when evaluating and implementing developmentally appropriate practices.

LITERATURE REVIEW

Developmental Significance of Outdoor Play

The developmental benefits of outdoor play for young children are widely recognized across disciplines, including developmental psychology, public health, neuroscience, and education (Dankiw et al., 2020). Outdoor environments provide children with the spatial and sensory conditions necessary for motor activities such as running, jumping, climbing, and throwing, which strengthen large muscle groups, improve coordination, and lay the foundations for lifelong physical health. Regular outdoor physical activity in early childhood has been associated with reduced risk of obesity, enhanced cardiovascular fitness, improved vitamin D synthesis crucial for bone development, and stronger immune function through exposure to diverse microbial environments (Devulapalli, 2025). The World Health Organization (2021) identifies physical inactivity as a leading risk factor for poor health outcomes in childhood, making daily outdoor play a matter of both public health and educational policy.

Beyond physical development, outdoor play supports cognitive growth. Exposure to natural environments and regular aerobic activity has been consistently linked with improvements in executive function, including working memory, cognitive flexibility, and inhibitory control, which are strong predictors of school readiness and long-term academic (Latino et al., 2025). Children who have regular access to outdoor recess demonstrate stronger attention, better classroom behavior, and superior academic performance compared to peers with restricted outdoor time (Atkinson et al., 2025). Natural environments are theorized to restore directed attentional capacity by providing effortless engagement with dynamic stimuli, enabling children to return to structured learning activities with renewed concentration (Daniel, 2014).

Outdoor play also creates uniquely rich conditions for social and emotional development. The relatively unstructured, child-directed nature of outdoor activity requires children to negotiate rules, assign roles, resolve disputes, practice turn-taking, and exercise empathy in ways that structured classroom activities rarely demand. Peer interactions in these settings provide opportunities for children to operate above their current developmental level, extending both social and cognitive capacities in ways adult-directed instruction cannot replicate (Lee et al., 2025). Emotionally, outdoor play contributes to stress reduction, mood enhancement, and the development of confidence through manageable risk-taking. Children with regular outdoor access consistently demonstrate lower anxiety levels and improved emotional self-regulation compared to those with limited outdoor play opportunities (Bastianello et al., 2025; Lee et al., 2025; Mason et al., 2025).

Decline in Outdoor Play and Contributing Barriers

Despite these well-established benefits, opportunities for outdoor play have declined markedly over recent decades across many regions of the world, including North America, Europe, Asia, and the United Kingdom. This reduction is a global phenomenon influenced by multiple, interconnected social, environmental, and educational factors. Urbanization has reduced the availability of accessible green and open spaces, replacing them with dense built environments in which outdoor play is constrained by traffic, safety risks, and the absence of appropriate facilities (Lu & van Ameijde, 2025). Simultaneously, the proliferation of digital media provides children with entertaining indoor alternatives, while heightened parental anxieties about injury and security further restrict children's independent outdoor movement (Armstrong & Gaul, 2025).

Another significant factor contributing to the decline is the increasing formalization of early childhood curricula. Prochner and Nawrotzki (2026) document that play-based, child-initiated learning is often replaced by direct academic instruction, standardized assessments, and formal curricular requirements. As instructional time devoted to literacy and numeracy preparation expands, opportunities for outdoor play contract. Although preschool teachers

recognize the developmental value of outdoor activity, few provide daily opportunities consistently, highlighting a gap between professional knowledge and actual practice shaped by institutional pressures, limited resources, and inadequate teacher training.

Outdoor Play in the Nigerian Preschool Context

While these barriers exist globally, Nigeria's preschool context presents additional, locally specific challenges. Nigeria's National Policy on Education explicitly promotes play-based, activity-centered pedagogy as the foundation of early childhood education, aligning national policy with international best practices. In practice, however, many urban preschools prioritize rote learning, written exercises, and examination preparation over experiential learning. Many preschools operate from converted residential buildings, leaving little or no dedicated outdoor space for children (Ladru & Gustafson, 2025).

Nigeria's early childhood education workforce further complicates the implementation of play-based pedagogy. A significant portion of the sector is managed by teachers who are under-qualified, with relatively few possessing formal training or professional credentials in early childhood education. This qualification gap directly affects teachers' understanding of developmentally appropriate pedagogy and limits their ability to advocate effectively for outdoor play within their schools. Structural challenges are compounded by cultural expectations; in urban and semi-urban areas, parents often enroll children primarily to secure academic advantages or to free up time for work, viewing literacy and numeracy skills as key markers of educational quality while marginalizing play-based learning (Bhutoria et al., 2025). Together, workforce limitations and cultural perceptions create a complex environment in which outdoor play provision is inconsistent and undervalued, despite its recognized developmental importance.

Preschool proprietors in highly competitive private education markets also respond to societal and parental pressures by prioritizing measurable academic outcomes over developmentally appropriate practices (Barnett & Jung, 2024). As a result, curricula and daily schedules are often organized around early literacy and numeracy benchmarks, while play-based and outdoor activities receive minimal attention. These dynamics are particularly pronounced in commercially dense urban centers such as Aba, where limited affordable space, high land values, and intense competition among private preschools combine to create conditions structurally unfavorable to outdoor play. Outdoor areas are frequently small, improvised, or entirely absent, and teachers may feel constrained by both physical limitations and the expectation to deliver academically focused instruction. Consequently, children's access to outdoor play which is critical for their physical, cognitive, and socio-emotional development is consistently restricted, despite national policies advocating play-based pedagogy and the widely recognized developmental benefits of outdoor learning

RESEARCH METHODOLOGY

This study adopted a descriptive survey research design, which is suitable for collecting data from a representative sample to describe existing conditions, attitudes, and perceptions within a defined population at a specific point in time (Creswell & Poth, 2024). According to Fatah (2025) descriptive surveys are particularly appropriate in educational research for capturing participants' opinions and experiences on contemporary issues without attempting to manipulate variables or establish causal relationships.

Population, Sampling, and Participants

The target population comprised all preschool teachers employed in registered early childhood education schools within Aba metropolis, Abia State, Nigeria. According to the Abia State Basic and Secondary Education Management Information System (ASBS-EMIS) records indicate that Aba hosts approximately 187 registered preschools employing a total of 453 preschool teachers.

The sample size was determined using Yamane's formula:

$$n = \frac{N}{1+Ne^2}$$

Where N = 453
N=453 represents the population size and e = 0.05 is the margin of error. Substituting the values:

$$n = 453$$

$$\frac{453}{1 + 453\ (0.05^2)} = \frac{453}{2.1325} = 212$$

A multistage sampling procedure was employed. First, the 187 registered preschools were stratified into two categories: public and private schools, reflecting the distribution of school types in the population. Second, schools were randomly selected from each stratum. Third, all teachers in the selected schools were invited to participate, with selection continuing until the target sample size of 212 teachers was achieved. A total of 212 questionnaires were distributed. Of these, 200 were successfully completed and retrieved, representing a response rate of 94.3%. The 12 non-returned questionnaires were excluded from the analysis. Participating teachers were predominantly female (89.0%), with the largest age range between 31 and 40 years (43.5%), and 78.0% employed in private preschools, reflecting the demographic profile of the sector.

Instrumentation

Data were collected using a structured questionnaire titled the Teachers' Perceptions of Inadequate Outdoor Play Questionnaire (TPIOP-Q). The instrument consisted of two sections. Section A gathered demographic information including age, gender, years of teaching experience, and school type. Section B comprised 11 Likert-scale perception statements organized into three clusters: Availability and Use of Outdoor Play Spaces (4 items); Perceptions of Developmental Impacts of Inadequate Outdoor Play (4 items); and Challenges and Constraints (3 items). Respondents indicated their level of agreement on a four-point scale: Strongly Agree (4), Agree (3), Disagree (2), and Strongly Disagree (1). A neutral midpoint was deliberately excluded to elicit more decisive responses.

Data Collection and Analysis

Data collection was conducted during non-instructional periods to distribute and collect questionnaires. All 200 retrieved questionnaires were complete and suitable for analysis. Data were analysed using SPSS version 30. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were calculated for each item. The following decision rule was applied to interpret mean scores: 3.50 to 4.00 corresponded to Strongly Agree; 2.50 to 3.49 to Agree; 1.50 to 2.49 to Disagree; and 1.00 to 1.49 to Strongly Disagree. Chi-square tests of independence were conducted to examine whether perceptions differed significantly across demographic subgroups, with a significance threshold of $p = .05$.

RESULT AND DISCUSSION

Demographic Characteristics of Respondents

Table 1 presents the demographic profile of the 200 participating teachers. The sample was predominantly female (89.0%), reflecting the gender composition typically observed in the early childhood education sector. The largest age range was 31 to 40 years (43.5%), and nearly half of respondents (48.0%) had five or fewer years of teaching experience, indicating a relatively young and early-career workforce.

Table 1 Demographic Characteristics of Respondents (N = 200)

Variable	Category	Frequency	Percentage (%)
Gender	Male	22	11.0
	Female	178	89.0
Age Range	20 to 30 years	70	35.0
	31 to 40 years	87	43.5
	41 to 50 years	35	17.5
	Above 50 years	8	4.0
Teaching Experience	0 to 5 years	96	48.0

Variable	Category	Frequency	Percentage (%)
	6 to 10 years	63	31.5
	11 to 15 years	30	15.0
	Above 15 years	11	5.5
School Type	Public	44	22.0
	Private	156	78.0

Source: Researchers Analysis (2025)

Research Question 1: Availability and Use of Outdoor Play Spaces

Table 2 presents teachers' responses regarding outdoor play infrastructure and access. Item 5, which asked whether schools had a designated outdoor play area, produced the highest mean score in this cluster (Mean = 2.52), indicating marginal agreement; however, 51.0% of respondents still disagreed, reflecting that a substantial proportion of schools lacked a dedicated play area. Teachers largely disagreed that existing outdoor spaces were safe and suitable for preschool activities (Mean = 2.17), with 69.5% expressing disagreement. A majority also disagreed that children had daily access to outdoor play (Mean = 2.27; 63.0% disagreed) and that allocated outdoor play time was sufficient for children's needs (Mean = 2.08; 76.0% disagreed). The cluster mean of 2.26 fell within the disagree range, indicating widespread inadequacies in outdoor play infrastructure, safety, accessibility, and time provision across the sampled schools.

Table 2 Teachers' Perceptions of Availability and Use of Outdoor Play Spaces (N = 200)

Item	SA f(%)	A f(%)	D f(%)	SD f(%)	Mean	SD	Decision
Preschool has designated outdoor play area	33(16.5)	65(32.5)	76(38.0)	26(13.0)	2.52	0.92	Agree
Outdoor area is safe and suitable	17(8.5)	44(22.0)	96(48.0)	43(21.5)	2.17	0.86	Disagree
Children have daily access to outdoor play	22(11.0)	52(26.0)	85(42.5)	41(20.5)	2.27	0.91	Disagree
Outdoor play time is sufficient	13(6.5)	35(17.5)	107(53.5)	45(22.5)	2.08	0.81	Disagree
Cluster Mean					**2.26**	**0.88**	**Disagree**

Source: Researchers Analysis (2025)

Research Question 2: Perceptions of Developmental Impacts

Table 3 displays teachers' responses regarding the developmental consequences of inadequate outdoor play. Strong agreement was recorded across

all four items in this cluster. Teachers agreed that inadequate outdoor play adversely affects children's physical activity levels (Mean = 3.48; 92.5% agreed) and limits their social interaction with peers (Mean = 3.43; 91.5% agreed). Item 11, addressing whether children exhibit restlessness or hyperactivity when outdoor play is restricted, received the highest mean score in the entire instrument (Mean = 3.58; 94.0% agreed), reaching the strongly agree threshold. Teachers also agreed that inadequate outdoor play reduces children's attention span during classroom activities (Mean = 3.38; 90.0% agreed). The cluster mean of 3.47 reflects strong consensus among teachers that outdoor play deficiencies produce observable negative consequences across physical, behavioural, social, and cognitive domains.

Table 3 Teachers' Perceptions of Impacts of Inadequate Outdoor Play (N = 200)

Item	SA f(%)	A f(%)	D f(%)	SD f(%)	Mean	SD	Decision
Lack of outdoor play affects physical activity	115(57.5)	70(35.0)	11(5.5)	4(2.0)	3.48	0.69	Agree
Inadequate outdoor play limits social interaction	107(53.5)	76(38.0)	13(6.5)	4(2.0)	3.43	0.70	Agree
Children show restlessness or hyperactivity when outdoor play is limited	131(65.5)	57(28.5)	9(4.5)	3(1.5)	3.58	0.65	Strongly Agree
Attention span reduced due to inadequate outdoor play	100(50.0)	80(40.0)	17(8.5)	3(1.5)	3.38	0.70	Agree
Cluster Mean					**3.47**	**0.69**	**Agree**

Source: Researchers Analysis (2025)

Research Question 3: Challenges and Constraints

Table 4 presents teachers' perceptions of the barriers limiting outdoor play provision. Limited school space was identified as the most significant barrier, with a mean score of 3.52 reaching the strongly agree threshold and 92.5% of teachers in agreement, directly reflecting the urban density and high land costs characteristic of Aba. Academic and curriculum pressures ranked as the second most significant barrier (Mean = 3.40; 90.0% agreed), revealing the tension between institutional priorities for academic demonstration and the requirements of play-based learning. Safety concerns, including inadequate fencing, proximity to vehicular traffic, and poorly maintained equipment, were identified as the third barrier (Mean = 3.27;

86.0% agreed). The cluster mean of 3.40 indicates that teachers perceive multiple, interrelated barriers operating simultaneously to constrain outdoor play provision.

Table 4 Teachers' Perceptions of Challenges and Constraints (N = 200)

Item	SA f(%)	A f(%)	D f(%)	SD f(%)	Mean	SD	Decision
Safety concerns restrict outdoor play	91(45.5)	81(40.5)	20(10.0)	8(4.0)	3.27	0.80	Agree
Limited space prevents adequate outdoor play	124(62.0)	61(30.5)	11(5.5)	4(2.0)	3.52	0.69	Strongly Agree
Academic or curriculum pressures reduce outdoor play time	104(52.0)	76(38.0)	17(8.5)	3(1.5)	3.40	0.71	Agree
Cluster Mean					**3.40**	**0.73**	**Agree**

Source: Researchers Analysis (2025)

Research Question 4: Demographic Variations in Perceptions

Chi-square tests of independence were conducted to determine whether teachers' perceptions differed significantly across school type, gender, and teaching experience. For school type, analyses across the three perception clusters yielded the following results: Availability cluster, chi-square(1, N = 200) = 2.14, p = .143; Developmental Impacts cluster, chi-square(1, N = 200) = 1.87, p = .171; Challenges cluster, chi-square(1, N = 200) = 2.53, p = .112. For gender, the results were: Availability cluster, chi-square(1, N = 200) = 0.83, p = .362; Developmental Impacts cluster, chi-square(1, N = 200) = 1.12, p = .290; Challenges cluster, chi-square(1, N = 200) = 0.76, p = .383. For teaching experience, the results were: Availability cluster, chi-square(3, N = 200) = 4.21, p = .240; Developmental Impacts cluster, chi-square(3, N = 200) = 5.63, p = .131; Challenges cluster, chi-square(3, N = 200) = 3.94, p = .268. None of these results reached statistical significance at the p = .05 level. These findings indicate that perceptions of outdoor play inadequacy and its consequences are broadly shared across the teaching workforce in Aba, regardless of school type, gender, or years of experience.

This study investigated teachers' perceptions of inadequate outdoor play among preschool children in Aba, Abia State, Nigeria. The findings present a clear and consistent picture: outdoor play provision in Aba preschools is broadly inadequate, teachers are well aware of the developmental consequences of this inadequacy, and multiple structural barriers prevent them from addressing the problem effectively. This pattern extends the existing literature on outdoor play provision in urban Nigerian and global contexts.

The finding that teachers broadly disagreed with statements affirming adequate outdoor play provision (cluster mean = 2.26) is consistent with Nigerian data indicating that many of urban preschools lack designated outdoor play areas. The fact that 76.0% of teachers reported insufficient outdoor play time indicates that the NAEYC minimum standard of 60 to 90 minutes of daily outdoor play is not being met in the majority of sampled schools, a direct contradiction of Nigeria's National Policy on Education. The marginal agreement recorded for the existence of a designated play area (Mean = 2.52) is itself notable: even where outdoor space nominally exists, over half of teachers considered it unsafe or unsuitable, meaning that the formal presence of a space does not translate into meaningful outdoor play opportunity for children.

The strong consensus among teachers regarding the developmental impacts of inadequate outdoor play (cluster mean = 3.47) is significant. The highest-rated item in the entire study was the observation that children display restlessness and hyperactivity when outdoor play is restricted (Mean = 3.58; 94.0% agreed). This finding is consistent with the work of Bastianello et al. (2025), who demonstrated that deprivation of regular physical activity is associated with increased disruptive behaviour and reduced self-regulation in young children. The link between inadequate outdoor play and reduced classroom attention span, affirmed by 90.0% of respondents, aligns with Latino et al. (2025) attention restoration framework, which holds that natural outdoor environments restore the directed attentional capacity depleted by structured classroom demands. The high level of agreement regarding social developmental impacts (91.5%) agrees with Lee et al. (2025), who identifies play as the primary context for social learning and the exercise of emerging interpersonal skills in early childhood.

The identification of limited school space as the primary barrier (Mean = 3.52) reflects the structural realities of urban preschool education in a commercially dense city where land is scarce and expensive. This finding reinforces the conclusion that outdoor play deficiencies in Aba are fundamentally infrastructural in origin rather than matters of individual teacher preference or professional knowledge. The prominence of academic and curriculum pressures as the second barrier (Mean = 3.40) provides evidence of prioritizing indoor learning in the Nigerian context, corroborating Hyndman and Cruickshank (2025) and extending their findings to a sub-Saharan African urban setting like Aba. Safety concerns as the third significant barrier (Mean = 3.27) highlight the inadequacy of the physical environments in which many Aba preschools operate, where converted residential spaces are used without the modifications necessary to ensure child-safe outdoor access.

The chi-square analyses produced no statistically significant differences across any of the demographic variables examined, with all p-values exceeding the .05 threshold. The highest chi-square value obtained was 5.63 for the comparison of teaching experience with the Developmental Impacts cluster ($p = .131$), which

fell well short of significance at df = 3. These results indicate that perceptions of outdoor play inadequacy are not shaped by school type, gender, or accumulated years of classroom experience, but reflect conditions that are systemic and sector-wide. This has direct implications for intervention; targeted support for particular teacher subgroups would be insufficient. What is required is sector-level structural reform that changes the physical, curricular, and institutional conditions under which all teachers operate.

In terms of study limitations, the study was confined to Aba metropolis, limiting the applicability of findings to rural and peri-urban settings within Abia State and Nigeria more broadly. The TPIOP-Q was developed specifically for this study without prior pilot testing, formal reliability estimation was therefore not conducted, and the internal consistency of the instrument remains unestablished. Future research should employ mixed-methods designs combining teacher-reported perceptions with direct observational data, report instrument reliability coefficients, and extend geographic scope to enable comparative analysis across urban and rural contexts.

CONCLUSION

Preschool teachers in Aba, Abia State, possess clear awareness of the developmental importance of outdoor play and consistently identified its absence as a source of observable negative outcomes in children's physical activity, social interaction, classroom behaviour, and attention. Despite this awareness, outdoor play provision in the sampled schools was broadly inadequate, with the majority of teachers reporting deficiencies in space, safety, daily access, and time allocation. The primary constraints identified were limited school space, academic and curriculum pressures, and safety concerns, all of which reflect structural conditions that individual teachers cannot resolve without institutional and government-level support. The chi-square findings, which showed no significant differences across any demographic subgroup, confirm that these challenges are experienced uniformly across the sector rather than being concentrated in particular school types or teacher categories.

Three recommendations follow from these findings. The Abia State Ministry of Education should establish and enforce minimum outdoor space requirements as a condition of preschool registration and annual licensing, with provisions for schools in space-constrained locations to explore alternatives such as shared community play spaces or timetabled access to public parks. Professional development programmes should target school administrators and proprietors as well as teachers, equipping institutional leaders to make resource allocation decisions that protect outdoor play time within the school day. Parent and community education initiatives should address prevailing cultural beliefs that position academic instruction and play as competing priorities, communicating the

evidence that outdoor play directly supports the school readiness and cognitive development that families seek for their children. The integration of outdoor play as a monitored, non-negotiable component of the preschool curriculum, with accountability mechanisms at both school and ministry level, offers the most direct path toward closing the persistent gap between policy intent and educational practice in Nigerian early childhood settings.

REFERENCES

Agustini, R., Meilanie, R. S. M., & Pujiastuti, S. I. (2024). Enhancing Critical Thinking and Curiosity in Early Childhood Through Inquiry-Based Science Learning. *Aulad: Journal on Early Childhood*, *7*(3), 734–743. https://doi.org/10.31004/aulad.v7i3.780

Armstrong, F., & Gaul, D. (2025). Children's outdoor play injuries: how real are parental concerns of danger in outdoor play? *International Journal of Play*, *14*(2), 152–165. https://doi.org/10.1080/21594937.2025.2508651

Atkinson, M., Goldenberg, G., Dubiel, J., & Wass, S. (2025). Differential effects of an urban outdoor environment on 4–5 year old children's attention in school. *Journal of Environmental Psychology*, *104*, 102589. https://doi.org/10.1016/j.jenvp.2025.102589

Barnett, W. S., & Jung, K. (2024). Auspice and other policy-related variations in preschool practice in the United States: have public preschool programs been more academic? *International Journal of Child Care and Education Policy*, *18*(1), 13. https://doi.org/10.1186/s40723-024-00139-6

Bastianello, T., Silletti, F., Cassibba, R., Coppola, G., Musso, P., Rossini, V., Zusi, C., Unali, I., Florit, E., Majorano, M., Maffeis, C., & Lavelli, M. (2025). Short-Term Effects of an Outdoor Activities Intervention on Children's Stress, Socio emotional, Behavioral, and Cognitive Regulation Skills. *Early Education and Development*, *36*(3), 724–743. https://doi.org/10.1080/10409289.2024.2423387

Bhutoria, A., Aljabri, N., & Bose, S. (2025). Responsive early childhood parenting, preschool enrollment, and eventual student learning outcomes: a cross-country analysis using hierarchical linear modeling with TIMSS 2019 data. *International Journal of Child Care and Education Policy*, *19*(1), 3. https://doi.org/10.1186/s40723-025-00141-6

Biino, V., Pesce, C., & Martins, C. (2025). Motor Skill Development at Preschool Age in Girls and Boys: The Role of Outdoor Free Play. *Children*, *12*(5), 594. https://doi.org/10.3390/children12050594

Creswell, J. W., & Poth, C. N. (2024). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. SAGE Publications Ltd.

Cronqvist, M. (2025). Teachers' ethical responsibility in teaching; to guide the children about right and wrong. *Scandinavian Journal of Educational Research*, *69*(4), 857–870. https://doi.org/10.1080/00313831.2024.2360901

Daniel, R. (2014). *The Effects of the Natural Environment on Attention Restoration*.

Dankiw, K. A., Tsiros, M. D., Baldock, K. L., & Kumar, S. (2020). The impacts of unstructured nature play on health in early childhood development: A systematic review. *PLOS ONE*, *15*(2), e0229006.

https://doi.org/10.1371/journal.pone.0229006

Davenport, C., Kuzik, N., Larouche, R., & Carson, V. (2025). The Associations Between Parental-Reported and Device-Based Measured Outdoor Play and Health Indicators of Physical, Cognitive, and Social–Emotional Development in Preschool-Aged Children. *Pediatric Exercise Science*, *37*(2), 102–111. https://doi.org/10.1123/pes.2023-0119

Devulapalli, C. S. (2025). Physical activity and vitamin D in children: a review of impacts on bone health and fitness. *Journal of Pediatric Endocrinology and Metabolism*, *38*(7), 671–678. https://doi.org/10.1515/jpem-2024-0527

Dodd, H. F., Nesbit, R. J., & FitzGibbon, L. (2023). Child's Play: Examining the Association Between Time Spent Playing and Child Mental Health. *Child Psychiatry & Human Development*, *54*(6), 1678–1686. https://doi.org/10.1007/s10578-022-01363-2

Fatah, R. A. (2025). INTEGRATING QUALITATIVE INQUIRY AND SURVEY RESEARCH IN SOCIAL SCIENCES: A DESCRIPTIVE AND ANALYTICAL LITERATURE REVIEW | International Journal of Multidisciplinary Reseach. *International Journal of Multidisciplinary Research*, *1*(5).

Hanipah, Rasimin, R., & Yusra, A. (2023). EFFORTS TO IMPROVE READING SKILLS IN CHILDREN WITH DISLEXIA THROUGH CONTENT MASTERY SERVICES USING PLAY THERAPY TECHNIQUES AT SDN 70/IV JAMBI. *SUJANA (Education and Learning Review)*, *2*(1), 27–35. https://doi.org/10.56943/sujana.v2.i1.244

Haupt, A. L. ., Massare, B., Nizer, J., Paul, M., & Valenti, L. A. . (2024). *Healthy young children*. National Association for the Education of Young Children.

Hyndman, B., & Cruickshank, V. (2025). Hooks, lines & thinkers: teachers' perceptions for the prioritisation of outdoor play. *Journal of Outdoor and Environmental Education*. https://doi.org/10.1007/s42322-025-00230-7

Jirout, J. J., Evans, N. S., & Son, L. K. (2024). Curiosity in children across ages and contexts. *Nature Reviews Psychology*, *3*(9), 622–635. https://doi.org/10.1038/s44159-024-00346-5

Ladru, D. E., & Gustafson, K. (2025). Dogs, Strollers and Secret Courtyards. Preschool Tactics for Claiming Space in the Dense City. *Barn – Forskning Om Barn Og Barndom i Norden*, *42*(1–2). https://doi.org/10.23865/barn.v42.6351

Latino, F., Tafuri, G., Amato, G., & Romano, G. (2025). Physical Activity, Cognitive Function, and Learning Processes: The Role of Environmental Context. *Behavioral Sciences*, *15*(12), 1630. https://doi.org/10.3390/bs15121630

Lee, E.-Y., de Lannoy, L., Kim, Y.-B., Rathod, A., James, M. E., Lopes, O., Nasrallah, B., Thankarajah, A., Adjei-Boadi, D., de Barros, M. I. A., Duncan, S., Miller, R. M., Mygind, L., Vanderloo, L. M., Wang, P.-Y., Tremblay, M. S., Jerbine, A., Amero, A., McGarty, A. M., … Carson, V. (2025). 2025 Position statement on active outdoor play. *International Journal of Behavioral Nutrition and Physical Activity*, *22*(1), 117. https://doi.org/10.1186/s12966-025-01813-9

Lee, J. J., Flouri, E., & Jackson, Y. (2025). The Role of Timing and Amount of Outdoor Play in Emotional Dysregulation in Preschool Children. *Child: Care,*

Health and Development, *51*(1). https://doi.org/10.1111/cch.70020

Lodewijk, D. P. Y., Hartinah, S., & Prihatin, Y. (2023). INCLUSIVE EDUCATION MODEL WITH MONTESSORI METHOD AND SAVI APPROACH IN EARLY-AGE CHILDREN WITH SPECIAL NEEDS. *SUJANA (Education and Learning Review)*, 55–71. https://doi.org/10.56943/sujana.v2i3.412

Lu, P., & van Ameijde, J. (2025). The impact of high-density urban environments on children's play, a systematic review of current insights. *Cities & Health*, 1–20. https://doi.org/10.1080/23748834.2024.2441554

Mason, L., Mastromatteo, L. Y., Rocchi, C., & Scrimin, S. (2025). Affect and conceptual learning in indoor and green outdoor school environments: Psychophysiological self-regulation matters. *British Journal of Educational Psychology*. https://doi.org/10.1111/bjep.70052

Prochner, L., & Nawrotzki, K. (2026). *Nature and Early Education: Global Perspectives on Outdoor Learning for Young Children*. Routledge.

Shah, P. E., Hirsh-Pasek, K., Spinelli, M., Ozor, J., Weeks, H. M., McCaffery, H., & Kaciroti, N. (2023). Ecological contexts associated with early childhood curiosity: Neighborhood safety, home and parenting quality, and socioeconomic status. *Frontiers in Psychology*, *14*. https://doi.org/10.3389/fpsyg.2023.986221

Sugiyama, M., Tsuchiya, K. J., Okubo, Y., Rahman, M. S., Uchiyama, S., Harada, T., Iwabuchi, T., Okumura, A., Nakayasu, C., Amma, Y., Suzuki, H., Takahashi, N., Kinsella-Kammerer, B., Nomura, Y., Itoh, H., & Nishimura, T. (2023). Outdoor Play as a Mitigating Factor in the Association Between Screen Time for Young Children and Neurodevelopmental Outcomes. *JAMA Pediatrics*, *177*(3), 303. https://doi.org/10.1001/jamapediatrics.2022.5356

WHO. (2021). *Physical activity fact sheet*. https://www.who.int/publications/i/item/WHO-HEP-HPR-RUN-2021.2

Zhu, W., Luo, X., Werneck, A. O., Pindus, D., Kramer, L., Kramer, A. F., Hillman, C. H., Herold, F., Zhang, Z., & Zou, L. (2024). Nature and success: Outdoor play is linked to school readiness. *Complementary Therapies in Clinical Practice*, *57*, 101895. https://doi.org/10.1016/j.ctcp.2024.101895