

The Nature of Pre-school Education among Plantation Sector Children: A Study Based on Nuwaraeliya District

K.A.C. Maheshika

Faculty of Education, University of Colombo.

Abstract

Although early childhood education must be strengthened to mitigate educational backwardness within the estate community in Sri Lanka, it remains challenged by prevailing socio and economic barriers. The primary objective of this study was to investigate the nature of preschool education for children of estate workers in the Nuwaraeliya district, focusing on parental attitudes, the contribution of estate management, the adequacy of physical resources, and preschool enrollment rates. A mixed methods research design was employed for this study. Quantitative data were collected through questionnaires administered to parents, while qualitative insights were gathered through interviews with teachers and officials. Furthermore, the condition of physical resources in preschools was assessed via direct observation. Using a cluster sampling technique, a sample of 150 participants and locations was selected, including estate worker parents, preschool teachers, estate management officials, and government officers. The findings indicate that while estate worker parents maintain a positive attitude toward preschool education, poverty and inadequate transportation facilities significantly hinder children's access to schooling. It was observed that the estate management's contribution is frequently restricted to the provision of buildings, resulting in a pronounced shortage of educational materials, safe drinking water, and teacher training programs. Although student registration remains high, daily attendance rates are inconsistent. The study concludes that increasing financial allocations by estate management, formally integrating estate preschools into the national education system, and upgrading infrastructure are essential steps. This research emphasizes that all stakeholders must prioritize ensuring quality early childhood education to guarantee the future success of children in the estate sector.

Keywords: Preschool Education, Estate Community, Early Childhood Development, Parental Attitudes, Physical Resources.

Introduction

The Nuwaraeliya District, located in the central highlands of Sri Lanka, is a region characterized by a unique geographical setting and an economy primarily based on plantation agriculture. During the British colonial period in the 19th century, laborers were brought from India to Sri Lanka to work in tea and rubber plantations, and the present plantation community largely consists of their descendants. Over generations, this population has been subjected to severe social and economic hardships due to their dependence on low incomes and limited resources. Living in basic housing units known as “line rooms,” with minimal facilities, this community continues to face significant challenges, including food insecurity and malnutrition, particularly in the context of rising inflation. This historical and socio-economic marginalization has had a direct and negative impact on the educational opportunities and future development of their children (Herath, 2019).

Preschool education, which represents a critical stage of early childhood development, is widely regarded as a strong foundation for lifelong learning (UNESCO, 2015). The quality of the learning environment provided to children between the ages of 3 and 5 when psychological, linguistic, and social skills develop rapidly plays a crucial role in determining their future success. Although Sri Lanka’s national education system aims to provide equal opportunities for all, disparities and imbalances in resource distribution have resulted in plantation children facing numerous educational challenges. According to World Bank reports (2021), high levels of poverty, language barriers, and social isolation have significantly limited access to quality preschool education for children in plantation communities.

Although the number of educational institutions in the Nuwaraeliya District is relatively high, many preschools in plantation areas operate without direct government supervision and are managed on private or voluntary bases (Ministry of Education, 2020). Consequently, teacher training, teaching materials, and physical facilities remain at a very minimal level. While organizations such as the Plantation Human Development Trust (PHDT) have made efforts to provide teacher training and infrastructure support, these initiatives are limited in scope and have not created a significant long-term impact. Therefore, examining the current nature of preschool education among plantation children, along with assessing parental attitudes and the adequacy of physical resources, has become a timely and essential need.

Although preschool education is widely recognized as essential for the overall development of a child, children of plantation workers in the Nuwaraeliya district continue to face numerous educational disadvantages. Research evidence indicates that key factors such as the lack of adequate learning resources, untrained teachers,

and insufficient support from estate authorities and government institutions significantly contribute to this situation. Furthermore, many parents in plantation communities lack formal education, which often results in limited awareness regarding the importance of preschool education.

Although both government and non-governmental organizations have made efforts to strengthen early childhood development programs, there remain clear gaps in policy implementation, resource allocation, and monitoring mechanisms. In many instances, estate authorities appear to prioritize the sustainability of the labor force over the holistic development of children. These challenges collectively give rise to the central research problem.

Accordingly, there is a critical need to examine how the nature and quality of preschool education among plantation children in the Nuwaraeliya district are influenced by factors such as the availability of physical resources, the contribution of estate management, and preschool enrollment rates, as well as how these factors impact children's access to basic education.

Therefore, the main research problem of this study can be identified as, "What is the nature of preschool education among children of plantation workers in the Nuwaraeliya district?"

Research objectives

The primary objective of this study is to examine the current nature of preschool education among children of plantation workers in the Nuwaraeliya district. In order to achieve this, the study seeks to accomplish the following specific objectives:

- To examine parental attitudes toward preschool education among children of plantation workers.

- To analyze the contribution of estate management to preschool education for children of plantation workers.

- To assess the adequacy of physical resources available in preschools attended by children in plantation areas.

- To investigate preschool enrollment rates among children of plantation workers and the factors influencing such enrollment.

Significance of the Study

This study is highly significant for several reasons. Firstly, it draws attention to early childhood education in plantation areas, a sector that has received limited focus within the field of educational research in Sri Lanka. The findings of this study provide a clear understanding of the strengths and weaknesses of the current preschool systems in plantation communities.

Secondly, the insights generated regarding key factors influencing preschool education such as parental attitudes, the availability of physical resources, and the involvement of estate management will guide policymakers, non-governmental organizations, and estate administrators in making informed decisions to enhance the quality of the system.

Thirdly, this study contributes academically toward ensuring educational rights of marginalized groups and promoting social equity. Improving preschool education for children of plantation workers can lead to better outcomes in their primary and secondary education. In turn, this can create opportunities for improved career prospects, enabling them to break free from the cycle of generational poverty and achieve positive social mobility.

Scope and Limitations

The scope of this study is limited to plantation communities in the Nuwaraeliya district of Sri Lanka and focuses specifically on preschool education (early childhood development) of children aged between 3 and 5 years within this community. Data collection for the study is primarily confined to key stakeholders, including parents of preschool children, preschool teachers, and estate management authorities.

Accordingly, the findings of this study cannot be directly generalized or applied to other geographical regions or to urban preschool education systems.

Literature Review

Early childhood education, or preschool education, serves as the fundamental foundation for a child's future academic success as well as the development of cognitive and socio-emotional skills. In order to examine the nature of preschool education among children belonging to socially and economically marginalized groups such as plantation worker communities, a strong theoretical foundation is essential. Accordingly, this study is constructed based on several key theories and concepts.

Primarily, according to the Montessori theory (Montessori, 1964), the preschool stage represents a sensitive period in a child's development, during which a free and resource-rich learning environment is essential. However, the scarcity of resources and the lack of trained teachers in plantation preschools in the Nuwaraeliya district deprive children of such independent learning opportunities, which can be theoretically explained through this framework.

Similarly, Jean Piaget's theory of cognitive development (Piaget, 2013) highlights that child in the preschool age group (2–7 years) are in the pre-operational stage, where symbolic play and practical learning tools are essential. The severe shortage of such physical resources in plantation preschools directly hinders children's natural cognitive development processes.

Furthermore, Lev Vygotsky's sociocultural theory (Vygotsky, 1978) emphasizes the importance of language and social interaction in learning. In plantation contexts, the presence of a multilingual environment (Tamil spoken at home and Sinhala in society), combined with the lack of adequately trained teachers, limits the expansion of children's Zone of Proximal Development (ZPD).

In addition, Bronfenbrenner's ecological systems theory (Bronfenbrenner, 1994) effectively explains how external factors such as family and estate administration influence a child's education. According to this model, the interaction between the family's economic condition (microsystem) and the limited resource provision by estate management (ecosystem) contributes to the weakening of preschool education.

This social marginalization is further interpreted through Pierre Bourdieu's cultural capital theory (Bourdieu, 1986), which explains how low literacy levels among parents (embodied capital) and the absence of educational resources within households (objectified capital) result in children being inherently disadvantaged within the education system, a phenomenon referred to as symbolic violence.

Ragnar Nurkse's theory of the vicious cycle of poverty (Nurkse, 1953) illustrates how low-income levels among plantation workers prevent investment in children's education. This, in turn, reduces human capital development, causing these children to become unskilled workers in the future and trapping them within a cycle of intergenerational poverty. These dynamics are critically discussed within the conceptual framework of this study.

Extensive research has been conducted at global, regional, and local levels on the importance of early childhood education and the social and economic factors

influencing it. From a global perspective, Nobel Prize-winning economist James Heckman's (2006) Heckman Curve demonstrates that the highest returns on investment in human capital are achieved during the preschool stage. Similarly, the well-known High/Scope Perry Preschool Study (Schweinhart &

Weikart, 2005) empirically confirms that disadvantaged children who receive quality preschool education are more likely to become stable citizens in adulthood, with higher incomes and lower involvement in criminal activities.

Furthermore, reports by UNESCO (2015) and OECD (2017) highlight that key indicators of preschool quality include teacher–student ratios, teacher qualifications, and the availability of physical resources such as safe drinking water and sanitation facilities, all of which directly influence the effectiveness of early childhood education.

Within the South Asian regional context, studies conducted in tea plantation areas of Assam and West Bengal in India (Borooah & Iyer, 2010; Sahu & Bhattacharya, 2015), which share similar geographical and social conditions with Sri Lanka's plantation sector, reveal that poverty and social issues within families (such as alcohol abuse) significantly hinder access to preschool education. Likewise, a study by Kandasamy (2012) on plantation workers in Tamil Nadu indicates that limited cognitive stimulation during early childhood poses a serious barrier to children's future social mobility. Additionally, research conducted in Bangladesh (Asadullah & Chaudhury, 2013) highlights that girls in marginalized communities are often deprived of preschool education due to their involvement in household labor.

In the Sri Lankan context, one of the most prominent studies on plantation education is Angela Little's (1999) *Labouring to Learn*, which explains that the educational progress of plantation children is determined not only by school facilities but also by their social identity and the economic stability of their families. Research conducted by Gunetillake et al. (2004) through the Centre for Poverty Analysis (CEPA) indicates that although enrollment in Child Development Centres (CDCs) in plantation areas has increased, learning outcomes remain limited due to low levels of educational capital within households and the prevalence of malnutrition (Ariyawansa, 2014).

Moreover, studies by UNICEF (2018) and Ramachandran (2010) clearly demonstrate that many preschools in plantation areas lack adequate infrastructure, playground facilities, and teachers with NVQ qualifications. While urban preschool systems operate at a higher standard based on the Montessori model, plantation preschools often function merely as “daycare centers.” These local studies

empirically confirm that the minimal involvement of estate management plays a direct role in maintaining this disparity.

Research Gap

As discussed above, numerous studies have been conducted at global, regional, and local levels on the importance of early childhood education and the general educational disadvantages present in plantation communities. However, the majority of these studies have primarily focused on broader themes such as general primary education, nutrition, or poverty.

Within the context of Sri Lanka, particularly in the Nuwaraeliya district, there exists a notable gap in the empirical literature regarding the preschool education system specific to plantation worker communities. Specifically, there is limited research examining how the combined interaction of key variables namely, parental educational attitudes, direct involvement of estate management, and the availability of physical resources influences preschool enrollment rates and determines the actual nature and quality of education experienced by children.

This study, therefore, seeks to move beyond conventional data by exploring the complex interplay among these factors, as well as the underlying social and cultural dynamics that shape them. In doing so, it aims to address and fill the existing gap in the academic literature.

Methodology

Research Design

To examine the current nature of preschool education among children of plantation workers in the Nuwaraeliya district, along with the complex social and economic factors influencing it, this study adopts a descriptive research design based on a mixed-method approach, integrating both quantitative and qualitative data.

As highlighted by Creswell and Plano Clark (2018), this mixed-methods approach ensures data triangulation and complementarity, thereby enhancing the validity and depth of the findings. In this study, quantitative methods are employed to measure variables such as preschool enrollment rates and the adequacy of physical resources. At the same time, qualitative methods are used to explore in depth the underlying factors such as parental attitudes and the involvement of estate management that contribute to these statistical outcomes.

Population and Sample

The target population of this study consists of stakeholders who are directly involved in preschool education within plantation communities in the Nuwaraeliya district. This includes parents of preschool children aged between 3 and 5 years, preschool teachers, estate managers, and officials from government or non-governmental organizations (NGOs).

In order to accurately capture the geographical diversity and variations in plantation settings within the district, a combination of stratified random sampling and purposive sampling techniques was employed. Accordingly, ten Divisional Secretariat divisions such as Kotmale East/West, Hanguranketha, Mathurata, Walapane, Nildandahinna, Nuwaraeliya, Talawakelle, Norwood, and Ambagamuwa were covered in the sampling process.

Based on this approach, the overall sample was selected as follows:

Table 1

Sample Selection

Category / Location	Sample Size
Parents of preschool-aged plantation children	135
Preschool teachers	05
Estate administrators and government officials	05
Preschools	05
Total	150

In this study, five preschools were purposively selected for classroom observation, enabling the assessment of physical facilities and teaching–learning processes relevant to the research objectives. These five institutional settings, combined with the selected participants, contributed to a total sample size of 150 respondents.

This sample size ensures a balance between quantitative representation and qualitative depth, while also facilitating data triangulation through multiple perspectives. Consequently, this approach enhances the overall validity and reliability of the study findings.

Data Collection Procedures & Instruments

To achieve the research objectives, three primary data collection methods were systematically employed:

Questionnaires:

A structured and semi-structured questionnaire was administered to 135 parents. The questionnaire was translated into Tamil, the native language of the plantation community, and was completed with the assistance of translators when necessary. The purpose of this instrument was to measure variables such as the availability of physical resources, parental attitudes, and barriers to preschool enrollment.

Interviews:

Semi-structured interviews were conducted with preschool teachers, estate administrators, and selected parents in order to gain an in-depth understanding of economic and cultural barriers, as well as policy-related challenges that could not be fully captured through quantitative data.

Observations:

Both participant and structured observations were carried out in five preschools. Standardized observation checklists were used to assess the actual conditions of infrastructure, sanitation facilities, availability of play equipment, and teaching–learning practices.

In addition, secondary data sources were utilized to support data triangulation, including reports from the Department of Census and Statistics, circulars issued by the Ministry of Education, and publications from organizations such as UNICEF and Save the Children.

Data Analysis Techniques

The collected data were analyzed under two categories, namely quantitative and qualitative, based on their nature.

For quantitative data analysis, SPSS (Statistical Package for the Social Sciences) and Microsoft Excel software were utilized. Descriptive statistical techniques such as frequencies, percentages, and means were employed to summarize variables including preschool enrollment rates, income levels, and resource deficiencies. In addition, inferential statistical methods, including correlation analysis, t-tests, and

ANOVA, were applied to examine the relationships between parental attitudes, resource availability, and enrollment rates.

Qualitative data, derived from interviews and observation notes, were analyzed using thematic analysis with the support of NVivo software. Through the process of data coding, key themes such as resource scarcity, teacher–student ratios, and weak communication were identified. These themes were then used to interpret and enrich the quantitative findings.

Ethical Considerations

Throughout the study, high ethical standards were strictly maintained. Informed consent was obtained from all participants, and the confidentiality and anonymity of their information were rigorously protected. Prior to data collection, formal approval was obtained from the relevant estate management authorities and educational bodies. Furthermore, the study was conducted with full respect for the cultural and linguistic sensitivities of the plantation community.

Results / Findings

The data analysis of this study was conducted in a manner that encompasses both quantitative and qualitative dimensions. Quantitative data were analyzed using SPSS software, while qualitative data were examined through thematic analysis. The relevant findings are presented as follows.

Reliability Test

To assess the internal consistency of the measurement instrument (questionnaire) used in the study, a Cronbach’s Alpha test was conducted. For the dataset consisting of 15 items, an alpha value of 0.829 was obtained. This result confirms that the research instrument demonstrates a high level of reliability and strong internal consistency.

Table 2

Reliability Statistics

Statistic	Value	Interpretation
Cronbach’s Alpha	0.829	Strong / Very good internal consistency
Number of Items	15	Total number of items in the measurement scale

Table 2 summarizes the reliability analysis of the research instrument. The 15-item measurement scale yielded a Cronbach's alpha coefficient of 0.829, indicating strong (very good) internal consistency. This value exceeds the recommended threshold of 0.70 for acceptable reliability and the 0.80 benchmark for good reliability, demonstrating that the items are highly consistent in measuring the intended construct. Therefore, the instrument was considered sufficiently reliable for use in the present study.

For the purpose of this study, a total of 135 parents (N = 135) participated, representing three plantation areas (A, B, and C) within the Nuwaraeliya district.

Table 3

Demographic Characteristics of the Parent Participants (N = 135)

Variable	Category	Frequency	Percent	Valid Percent	Sample (N)
Gender	Male	64	47.4%	47.4%	N = 135
	Female	71	52.6%	52.6%	N = 135
Location	A	51	37.8%	37.8%	N = 135
	B	36	26.7%	26.7%	N = 135
	C	48	35.6%	35.6%	N = 135
Enrolment Status	No.	46	34.1%	34.0%	N = 135

Table 3 presents the demographic characteristics of the 135 parent participants included in the study. Of the total participants, 71 (52.6%) were female and 64 (47.4%) were male, indicating a relatively balanced gender distribution with a slight predominance of female respondents.

The participants were drawn from three plantation areas in the Nuwara Eliya District. Area A contributed the highest proportion of participants (51, 37.8%), followed by Area C (48, 35.6%), while Area B accounted for 36 participants (26.7%). The distribution demonstrates that parents from all three plantation areas were represented in the study, providing a reasonable geographical spread across the selected locations.

Socio - economic Background of the sample

Figure 1

Educational Level Distribution of Parents

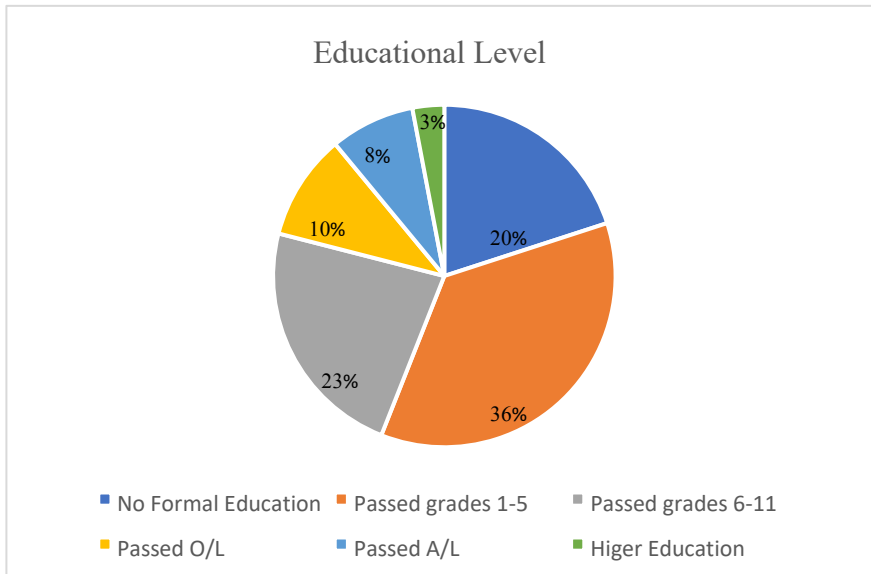
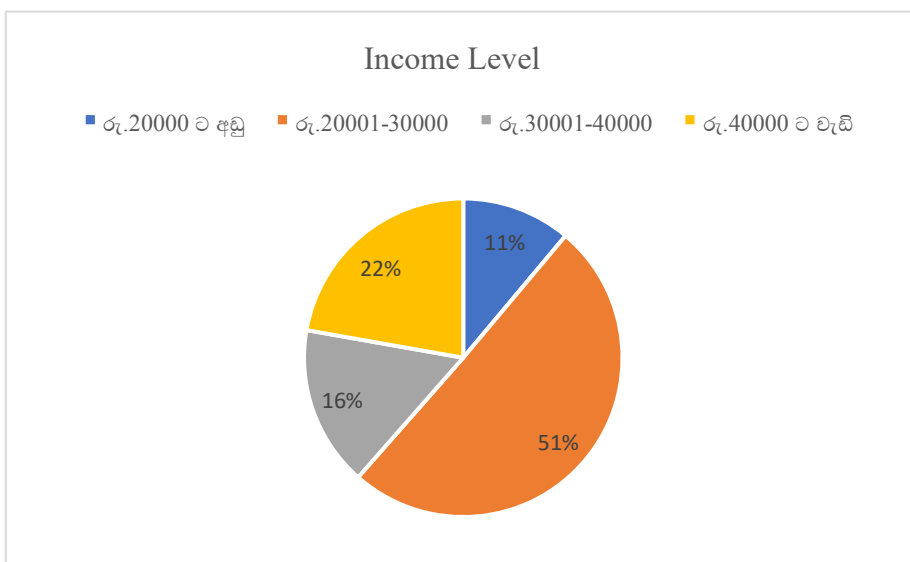


Figure 2

Analysis of Income Levels



The socio-economic characteristics of the participating parents indicate that most families experience educational and economic disadvantages. As illustrated in Figure 1 the majority of parents have attained only a low level of formal education, while a considerable proportion have not received any formal schooling. The limited educational attainment of parents may influence their awareness of the importance of early childhood education, their ability to support children's learning at home, and their access to information regarding educational opportunities.

Similarly, Figure 2 shows that the majority of respondents reported a monthly household income below LKR 30,000, reflecting the low-income status of many families in the plantation communities. Such financial constraints may limit parents' ability to meet educational expenses, including preschool fees, transportation costs, learning materials, and other related expenditures. Consequently, household economic conditions may play a significant role in decisions regarding preschool enrolment.

The findings further reveal that 65.9% ($n = 89$) of the parents had enrolled their children in preschool, whereas 34.1% ($n = 46$) had not enrolled their children. Although the majority of parents had enrolled their children, more than one-third of the sample had not, indicating that preschool participation is not yet universal among children in the selected plantation areas. This finding suggests that socio-economic challenges, particularly low parental education and limited household income, may act as barriers to preschool enrolment. These results underscore the need for policies and interventions aimed at improving access to affordable and equitable early childhood education for children from socio-economically disadvantaged plantation communities.

The socio-economic profile of the sample demonstrates that the participating families are characterized by relatively low educational attainment and limited financial resources. These conditions provide an important context for understanding preschool enrolment patterns and highlight the potential influence of parental socio-economic status on access to early childhood education.

Preschool Enrollment Rate

Out of the total sample, 65.9% (89 parents) have enrolled their children in preschool, while 34.1% (46 parents) have not enrolled their children.

Inferential Statistics and Hypothesis Testing

Correlation Analysis

A Pearson correlation analysis was conducted to examine the relationships among the key factors influencing preschool enrollment.

Table 4

Correlation Analysis

Relationship	Pearson r Value	p-value (Sig.)	Statistical Significance	Strength and Direction of Relationship
Resource Availability vs. Enrolled	0.260	0.002	Significant at 0.01 level	Weak positive relationship
Parent Attitude vs. Enrolled	0.217	0.011	Significant at 0.05 level	Weak positive relationship
Estate Authority vs. Enrolled	0.104	0.229	Not significant (p > 0.05)	Very weak / no significant relationship

Table 5

Correlation Analysis

Relationship (Between Variables)	Pearson Correlation (r)	Significance Level (p-value)	Strength and Direction of Relationship
Resource Availability vs. Parent Attitude	0.628	0.000	Strong positive relationship
Resource Availability vs. Estate Authority	0.543	0.000	Moderate to strong positive relationship
Parent Attitude vs. Estate Authority	0.513	0.000	Moderate to strong positive relationship

A Pearson product–moment correlation analysis was conducted to examine the relationships between the independent variables resource availability, parental attitudes, and estate authority support and preschool enrolment. The analysis also explored the interrelationships among the independent variables to determine the

extent to which they were associated with one another. The results are presented in Tables 4 and 5.

The findings presented in Table 4 indicate that resource availability was positively and significantly associated with preschool enrolment ($r = 0.260$, $p = 0.002$). Although the relationship is weak, it is statistically significant at the 0.01 level, suggesting that improvements in the availability of educational resources are associated with increased preschool enrolment among children in plantation communities. This finding implies that the provision of adequate learning facilities and physical resources may encourage parents to enroll their children in preschool.

Similarly, parental attitude demonstrated a statistically significant positive relationship with preschool enrolment ($r = 0.217$, $p = 0.011$). The correlation, although weak, indicates that parents who hold more favourable attitudes toward early childhood education are more likely to enroll their children in preschool. This result highlights the importance of parental awareness and perceptions in influencing educational decisions during the early years.

In contrast, the relationship between estate authority support and preschool enrolment was not statistically significant ($r = 0.104$, $p = 0.229$). The very weak positive correlation suggests that the level of support provided by estate management has little direct influence on parents' decisions to enroll their children in preschool. Therefore, the null hypothesis for this relationship cannot be rejected.

The analysis also examined the relationships among the independent variables, as presented in Table 5. A strong positive correlation was observed between resource availability and parental attitudes ($r = 0.628$, $p < 0.001$), indicating that parents who have access to better educational resources tend to hold more positive attitudes towards preschool education. Furthermore, resource availability was moderately and positively correlated with estate authority support ($r = 0.543$, $p < 0.001$), while parental attitude also showed a moderate positive relationship with estate authority support ($r = 0.513$, $p < 0.001$). These statistically significant relationships suggest that improvements in institutional support and educational resources are associated with more positive parental perceptions regarding preschool education.

The correlation analysis demonstrates that resource availability and parental attitudes are significant predictors of preschool enrolment, whereas estate authority support does not have a statistically significant direct relationship with enrolment. Additionally, the significant positive correlations among the independent variables indicate that resource provision, parental attitudes, and institutional support are interconnected factors that collectively influence the preschool education

environment within plantation communities. These findings support the view that enhancing educational resources and increasing parental awareness may contribute to improving preschool participation among children in the study area.

Qualitative data obtained from interviews and group discussions were analyzed using thematic analysis, through which the following key themes were identified. Additionally, word frequency analysis revealed that parents most frequently used concepts such as “resource scarcity,” “teaching methods,” and “teacher support.”

Theme 1 – Concerns about the Quality of Teaching:

Parents expressed concerns regarding the reliance on traditional rote-learning methods and the lack of teachers’ knowledge of modern child-centered pedagogical approaches.

Theme 2 – Resource Scarcity and Its Impact:

Observations highlighted several deficiencies in the physical environment of preschools, including high teacher–student ratios, lack of information technology facilities, deteriorating infrastructure, water leakages, and the absence of safe drinking water.

Theme 3 – Gap in Parental Perception:

Most parents perceived preschool merely as a place to prepare children for Grade 1 or as a “daycare centre.” There was a clear lack of awareness regarding its role in children’s social and emotional development.

Theme 4 – Weak Home–School Relationship:

Communication between parents and preschools was found to be weak. Due to parents’ work commitments, their involvement in preschool development activities was limited.

Overall Finding

Both quantitative and qualitative data collectively confirm that economic challenges, geographical isolation, inadequate physical resources, lack of awareness, and insufficient teacher guidance are the primary barriers limiting preschool participation among plantation children.

Discussion

Interpretation of major findings

The findings of this study generate a comprehensive academic discourse on the complex social, economic, and structural challenges associated with preschool education among children of plantation workers.

Firstly, in relation to parental attitudes, although plantation parents generally demonstrate a positive perception toward preschool education, the prevailing economic hardships and high cost of living hinder the practical implementation of these attitudes. The tendency of parents to perceive preschool merely as a “safe childcare facility” can be effectively interpreted through human capital theory. Due to poverty and low literacy levels, education is not viewed as a long-term investment yielding future returns; instead, immediate economic needs such as leaving children in care while parents engage in labour are prioritised. This reflects a pattern similar to the passive educational attitudes observed in marginalized communities across Global South countries such as India and Pakistan, confirming that a comparable situation exists within Sri Lanka’s plantation sector.

Secondly, the contribution of estate management remains problematic, as it is largely limited to providing physical buildings for preschools. The absence of teacher salaries and the lack of provision of learning materials can be analyzed through institutional theory. In this context, estate companies appear to maintain preschools not as a genuine act of social responsibility, but rather as a strategy to ensure the continuity of their labor force. This dual governance structure involving both the state and estate management has ultimately undermined children’s fundamental right to quality education.

Thirdly, the severe lack of physical resources in preschools can be interpreted through Bronfenbrenner’s ecological systems theory. The deficiencies in essential elements such as water, sanitation, and play materials within the child’s immediate learning environment (microsystem) directly hinder holistic development. Compared to urban preschools, children in plantation areas are subjected to a significant developmental disadvantage.

Finally, although the preschool enrollment rate is statistically high (65.9%), daily attendance remains inconsistent due to transportation issues and geographical barriers. From the perspective of social justice theory, mere access to education is insufficient; it is equally important to ensure equity in the quality of education. These findings strongly emphasize the need for not only improving access but also

enhancing the overall quality and inclusiveness of preschool education within plantation communities.

Conclusion

Based on the overall findings of the study, it can be concluded that preschool education among children of plantation workers in the Nuwaraeliya district remains significantly below theoretical ideals and national standards. Although there is a degree of positive parental attitude toward preschool education and relatively high enrollment rates, the combined impact of structural barriers such as extreme poverty, severe deficiencies in physical and human resources, and the passive involvement of estate management places early childhood development of plantation children at considerable risk.

Furthermore, the failure to fully integrate plantation preschools into the formal national education system has created a significant policy gap. As a result, the fundamental right of these children to access quality education has been compromised. This study therefore highlights the urgent need for systemic interventions to ensure both access to and the quality of early childhood education within plantation communities.

Recommendations

In order to address the structural issues identified in this study, the following recommendations are proposed for relevant stakeholders:

For Policy Makers

All preschools in plantation areas should be formally registered and brought under the direct supervision of the Provincial Early Childhood Education Authority. Continuous professional development programs on child psychology and modern pedagogical approaches should be implemented through government intervention to enhance teachers' competencies. Furthermore, a legal framework should be established to ensure that infrastructure such as safe drinking water and sanitation facilities meets national standards. In addition, a structured preschool nutrition (midday meal) program should be continuously implemented to combat malnutrition.

For Administrators

Estate management should move beyond merely providing physical buildings and introduce a stable salary system for preschool teachers. Ensuring children's safety by maintaining playgrounds, improving building conditions, and providing adequate

teaching and play materials should be undertaken as part of their Corporate Social Responsibility (CSR) initiatives.

For Educational Practice – Teachers & Parents

Awareness programs should be conducted to educate parents that preschool is not merely a “daycare center”, but the foundation of future education. Additionally, Preschool Development Committees should be established to encourage active participation and community involvement of parents in maintaining and improving preschool environments.

For Future Research

Further research should be conducted by comparing plantation districts such as Badulla, Kegalle, and Ratnapura to broaden the scope of findings. Longitudinal studies examining the relationship between the quality of preschool education and primary education outcomes are also recommended. Moreover, future research should explore the impact of maternal migration on early childhood development and the inclusion of children with special needs within plantation preschool systems.

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