

A Descriptive Study to Evaluate the Knowledge of Pre-Primary Teachers Regarding the Growth and Development of Preschoolers in Selected Schools of Bokaro City”

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Abstract

This descriptive study aimed to evaluate the knowledge of pre-primary teachers regarding the growth and development of preschool children in selected schools of Bokaro City. Growth and development during the preschool period are critical for establishing foundational physical, cognitive, emotional, and social skills. The study involved 60 pre-primary teachers selected using convenience sampling. Data were collected through a structured questionnaire and analyzed using descriptive statistics and Chi-square tests. Results showed that the majority of teachers (53.33%) had an average level of knowledge, 31.67% had poor knowledge and only 15% demonstrated good knowledge. The Chi-square analysis revealed a significant association between teachers’ knowledge and their age, education, and years of experience, while the number of children and monthly income showed no significant relationship. The findings highlight the need for targeted training and professional development programs to enhance teachers’ understanding of child growth and development, ultimately improving the quality of early childhood education in Bokaro City.

1. Introduction

Growth and development are continuous and dynamic processes that begin at conception and continue throughout life. In early childhood, particularly during the preschool years, these processes occur rapidly and lay the foundation for a child’s future health, learning, and behaviour. Growth refers to the physical changes in the body such as increase in height, weight, and organ size, while development includes the progression of cognitive, emotional, social, and motor skills.

The preschool period is a critical stage in a child’s life, as it is during this time that children develop basic skills, habits, and attitudes that influence their later life. A proper understanding of developmental milestones and age-appropriate behaviors is essential to ensure that children achieve their full potential. Any delay or deviation in growth and development, if not identified early, may lead to long-term consequences affecting academic performance and overall well-being.

Pre-primary teachers in primary schools play a vital role in nurturing and guiding young children during their formative years. They interact closely with preschoolers and are often the first to observe changes in children's behavior, learning patterns, and social interactions. Teachers who are knowledgeable about child growth and development are better equipped to create appropriate learning environments, use effective teaching strategies, and identify early signs of developmental delays or problems.

However, a lack of adequate knowledge among pre-primary teachers regarding child development may result in misunderstanding children's needs, improper handling of behavioural issues, and missed opportunities for early intervention. Therefore, it is important to assess the level of knowledge among pre-primary teachers to ensure that they can effectively support the developmental needs of preschool children.

Bokaro City, an important educational and industrial centre, has a growing number of schools catering to young children. Pre-primary teachers in these schools come from diverse educational backgrounds and experiences. Evaluating their knowledge regarding the growth and development of preschoolers is essential to improve the quality of early childhood education in the region.

Hence, the present study is undertaken to evaluate the knowledge of pre-primary teachers regarding the growth and development of preschool children in selected schools of Bokaro City. The findings of the study may help in identifying knowledge gaps and planning appropriate training programs and interventions to enhance pre-primary teachers' competencies in this area.

2. Purpose of the Study

The purpose of this study is to evaluate the knowledge of pre-primary teachers regarding the growth and development of preschool children in selected schools of Bokaro City. The preschool period is a critical stage in a child's life, during which foundational skills, habits, and attitudes are developed. A proper understanding of developmental milestones and age-appropriate behaviours is essential to ensure that children achieve their full potential. Early identification of delays or deviations in growth and development is crucial to prevent long-term consequences that may affect academic performance and overall well-being.

Pre-primary teachers play a vital role in nurturing and guiding young children during their formative years. As they interact closely with preschoolers, they are often the first to observe changes in behaviour, learning patterns, and social interactions. Teachers who possess adequate knowledge of child growth and development are better equipped to create supportive learning environments, apply effective teaching strategies, and identify early signs of developmental issues.

However, insufficient knowledge among pre-primary teachers may lead to misunderstandings of children's needs, improper handling of behavioural problems, and missed opportunities for early intervention. Therefore, assessing their level of knowledge is essential to ensure effective support for the developmental needs of preschool children.

The findings of this study are expected to contribute to the development of targeted training programs and interventions aimed at enhancing the competencies of pre-primary teachers, thereby improving the overall quality of early childhood education in the region.

3. Objectives

- To assess the knowledge of pre-primary teachers regarding the growth and development of preschooler in selected schools of Bokaro City.
- To determine the association between the level of knowledge of pre-primary teachers and selected demographic variables.

Operational definition

Knowledge

According to Kothari (2004) knowledge refers to the understanding and awareness acquired through learning or experience. It includes facts, information, and skills gained by individuals.

In this study, knowledge refers to the level of understanding of pre-primary teachers regarding growth and development of preschool children, as measured by a structured questionnaire prepared by the researcher.

Growth

According to Hurlock, E.B. (2017) growth is defined as an increase in physical size of the body or any of its parts, which can be measured in terms of height, weight, and other physical parameters.

In this study, growth refers to pre-primary teachers' understanding of measurable physical changes such as height and weight in preschool children.

Development

According to Hurlock, E.B. (2017), development refers to a progressive series of orderly, coherent changes that occur in an individual as a result of maturation and experience.

In this study, development refers to pre-primary teachers' understanding of changes in motor, cognitive, emotional, and social abilities in preschool children.

Preschoolers

According to Santrock, J.W. (2011) Preschoolers are children those aged between 3 to 6 years, representing the early childhood stage before entering formal schooling.

In this study, preschoolers are children those aged 3–6 years studying in selected schools of Bokaro

Pre-Primary teachers

According Aggarwal, J.C. (2010) pre-primary teachers are educators who are professionally trained or designated to teach children in the pre-primary or preschool stage, typically aged 3 to 6 years, before they enter formal primary education.

In this study pre-primary school refers to an educational institution or class where children aged 3 to 6 years are enrolled before entering formal primary education. In this study, pre-primary school includes nursery, lower kindergarten (LKG), and upper kindergarten (UKG) classes in selected schools of Bokaro City.

Hypothesis

Null Hypothesis (H_0)

- There is no significant association between the level of knowledge of pre-primary school pre-primary teachers regarding the growth and development of preschool children and their selected demographic variables

Alternative Hypothesis (H_1)

- There is a significant association between the level of knowledge of pre-primary school pre-primary teachers regarding the growth and development of preschool children and their selected demographic variables

Ethical Aspects:

- Participants (parents) should be clearly informed about the purpose of the study.
- Written consent must be obtained before data collection.
- Personal information of participants should be kept confidential.
- The study should not cause physical, psychological, or emotional harm.
- Obtain approval from an Institutional Ethics Committee (IEC) or review board before conducting the study.
- Permission should be taken from local health authorities or institutions where data is collected

Methodology

Research approach: Quantitative Research Approach

Research design: Non Experimental Descriptive Research Design

Variables:

- Independent Variable: - Demographic variable
- Dependent Variable: - Knowledge about growth and development

Setting of the Study:

Selected schools in Bokaro City

Population:

Target Population: pre-primary teachers

Accessible Population: pre-primary teachers from selected schools in Bokaro City

Sampling Technique:-Non-Probability (Convenience sampling technique).

Sample Size: - 60

Inclusion Criteria

1. Pre-primary teachers currently working in pre-primary schools (playgroups, nursery, KG) in Bokaro City.
2. Pre-primary teachers with at least 6 months of teaching experience in a pre-primary setting.
3. Pre-primary teachers who consent to participate in the study.
4. Pre-primary teachers who are willing to complete the questionnaire.
5. Pre-primary teachers who have a basic understanding of the local language in which the questionnaire is administered.

Exclusion Criteria

1. Pre-primary teachers who are on leave or not actively teaching during the study period.
2. Pre-primary teachers working only in primary schools (classes 1 and above), not pre-primary.
3. Pre-primary teachers who refuse or are unable to give consent.
4. Pre-primary teachers who have less than 6 months of experience, as they may not have sufficient exposure to preschoolers' growth and development.
5. Pre-primary teachers who are not available during data collection or provide incomplete responses.

Validation of the tool

In this study, the prepared tool along with statements, objectives, hypothesis, operational definitions, and criteria checklist was submitted to 17 experts in the field of child health nursing to establish content validity.

Reliability of the tool

The reliability of the tool was calculated using **Cronbach's alpha**. The coefficient obtained was $\alpha = 0.82$, which indicates that the tool is highly reliable and demonstrates good internal consistency for assessing the knowledge of pre-primary school pre-primary teachers

Data collection

The tool Consist of 2 sections

- Section - I Demographic Data
- Section – II Self – structured questionnaire on malnutrition.

Level of knowledge Scoring

Good: 17– 24

Average: 9 – 16

Poor: 0 – 8

4. Presentation and Organizing Of Data

SECTION – A

Description of the Frequency and Percentage Distribution of Demographic Characteristics of Pre-primary Teachers

SECTION – B

Analysis of the Knowledge Level of Pre-primary Teachers Regarding the Growth and Development of Preschoolers

SECTION – C

Association between Pre-Primary Teachers’ Knowledge Scores on the Growth and Development of Preschoolers and Their Selected Demographic Variables

SECTION – A: Demographic Characteristics of Pre-primary teachers

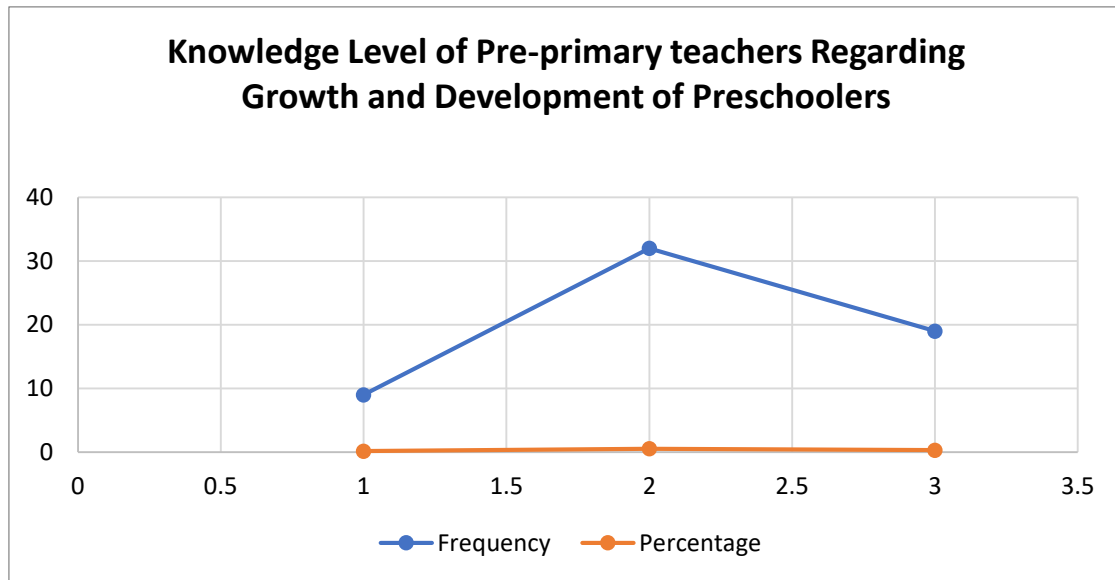
Demographic Variables	Frequency	Percentage
Age (years)		
20–24	38	63.33%
24–28	14	23.33%
28–32	8	13.33%
Education		
Diploma	38	63.33%
Graduation	20	33.33%
Post-graduation	2	3.33%
Years of Experience		
0–5	45	75.00%
5–15	10	16.67%
15+	5	8.33%
Number of Children		
0–2	45	75%
3–5	12	20%

6+	3	5%
Income/Month (₹)		
Up to 20,000	28	46.67%
20,000–30,000	24	40%
30,000–50,000	8	13%

The demographic characteristics of pre-primary teachers reveal that the majority of the workforce is relatively young and early in their careers. Most pre-primary teachers (63.33%) are between 20–24 years old, followed by 23.33% in the 24–28 years range, and only 13.33% aged 28–32 years. In terms of educational qualifications, 63.33% hold a diploma, 33.33% are graduates, and only a small proportion (3.33%) have completed post graduation, indicating that most pre-primary teachers possess basic professional qualifications. Regarding professional experience, 75% of pre-primary teachers have 0–5 years of experience, 16.67% have 5–15 years, and 8.33% have more than 15 years, showing that the majority of pre-primary teachers are relatively inexperienced. In terms of family characteristics, 75% of pre-primary teachers have 0–2 children, 20% have 3–5 children, and only 5% have more than six children. Finally, concerning income, 46.67% earn up to ₹20,000 per month, 40% earn between ₹20,000–₹30,000, and 13% earn between ₹30,000–₹50,000, reflecting that a significant portion of pre-primary teachers fall into the lower income bracket. Overall, the data indicate that pre-primary teachers are predominantly young, moderately qualified, less experienced, and earn modest salaries, highlighting the need for enhanced training, professional development, and better compensation in this sector.

SECTION – B: Knowledge Level of Pre-primary teachers Regarding Growth and Development of Preschoolers

Level of Knowledge	Score	Frequency	Percentage
Good	17-24	9	15%
Average	9-16	32	53.33%
Poor	0-8	19	31.67%



The table presents the knowledge levels of pre-primary teachers regarding the growth and development of preschoolers. Among the total respondents, 15% fall under the Good category, indicating that a relatively small proportion possess a high level of understanding of child development concepts. The majority 53.33%, are categorized under the Average level, suggesting that more than half of the teachers have a moderate understanding but may still benefit from further improvement. Additionally, 31.67% are in the Poor category, reflecting that nearly one-third of the teachers have inadequate knowledge in this area. Overall, the findings reveal that while most teachers demonstrate an average level of knowledge, a significant number still require training and professional development to enhance their understanding of preschoolers’ growth and development.

SECTION – C: Association between knowledge score and demographic data

Demographic Variable	χ^2 Value	df	p-value	Association
Age (years)	12.34	4	0.015	Significant
Education	10.56	4	0.032	Significant
Years of Experience	8.21	4	0.042	Significant
Number of Children	2.87	4	0.410	Not Significant
Monthly Income	3.45	4	0.328	Not Significant

The association between pre-primary teachers’ knowledge regarding the growth and development of preschoolers and their demographic characteristics was analyzed using the Chi-square (χ^2) test. The results indicate that **education** ($\chi^2 = 10.56$, $df = 4$, $p = 0.032$) and **years of experience** ($\chi^2 = 8.21$, $df = 4$, $p = 0.042$) have a significant relationship with teachers’ knowledge, suggesting that teachers with higher educational qualifications and more professional experience tend to have better understanding of child development. Additionally, **age** ($\chi^2 = 12.34$, $df = 4$, $p = 0.015$) also showed a significant association, indicating that slightly older teachers may possess higher knowledge levels. In contrast, **number of children** ($\chi^2 = 2.87$, $df = 4$, $p = 0.410$) and **monthly income** ($\chi^2 = 3.45$, $df = 4$, $p = 0.328$) did not show

any significant association, implying that personal family size and income do not influence teachers' knowledge in this area. Overall, the findings highlight the importance of professional experience and educational background in enhancing pre-primary teachers' knowledge of preschoolers' growth and development.

5. Recommendation

- **Regular Training Programs:** Organize continuous professional development workshops for pre-primary teachers on child growth, developmental milestones, and age-appropriate teaching strategies.
- **Updated Curriculum Resources:** Provide teachers with current teaching manuals, activity guides, and resource materials that reflect modern approaches to early childhood education.
- **Practical Demonstrations:** Include hands-on training sessions and demonstrations on how to implement activities that promote physical, cognitive, social, and emotional development in preschoolers.
- **Peer Learning and Mentorship:** Encourage experienced teachers to mentor newcomers, facilitating knowledge sharing and practical guidance on classroom management and developmental support.
- **Assessment Tools:** Introduce simple tools and checklists to help teachers monitor and evaluate preschoolers' growth and developmental progress regularly.
- **Parental Involvement:** Conduct sessions to train teachers on engaging parents in supporting their children's growth and learning at home.
- **Refresher Courses:** Schedule periodic refresher courses to update teachers on the latest research, policies, and best practices in early childhood education.
- **Collaborative Workshops:** Promote collaboration with child development experts, psychologists, and pediatricians to provide deeper insights into holistic development.
- **Feedback Mechanisms:** Implement feedback systems where teachers can discuss challenges, share experiences, and suggest improvements to training programs.

6. Conclusion

The study concludes that while a majority of pre-primary teachers in Bokaro City possess an average level of knowledge regarding preschoolers' growth and development, a substantial proportion still demonstrate inadequate understanding. Teachers' educational qualifications, years of experience, and age were significantly associated with knowledge levels, indicating that professional background and experience play a key role in competency. Factors such as the number of children and monthly income did not significantly affect knowledge. Enhancing teachers' awareness through continuous training, updated curriculum resources, practical demonstrations, mentorship programs, and parental engagement is crucial. Strengthening pre-primary teachers' knowledge will ensure that preschool children receive optimal support for their physical, cognitive, emotional, and social development, laying a strong foundation for lifelong learning and well-being.

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