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A Comparative Study On The Growth Patterns of Children Attending Daycare Centers Versus Those Cared For At Home In A Selected Metropolitan Area

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Abstract

BACKGROUND AND OBJECTIVES: Child growth and development are influenced by multiple factors, including caregiving environments. This study aimed to compare the growth patterns (height, weight, and BMI) of children aged 1 to 6 years attending daycare centers versus those cared for at home in a selected metropolitan area. The objectives were to assess and compare growth patterns in both settings, analyze influencing factors, and examine associations between growth patterns and demographic variables. METHOD: A quantitative, non-experimental approach with a comparative descriptive research design was employed. The study was conducted in Rajsamand city among a diverse socio-economic population. A total of 120 children (60 from daycare and 60 from home care) were selected through stratified random sampling. Inclusion criteria required children to have been in their respective caregiving settings for at least one year, with parental consent. Those with chronic illnesses or congenital anomalies were excluded. Data collection tools included a demographic questionnaire, growth assessment (height, weight, BMI calculation), and a growth-influencing factors checklist. Growth patterns were categorized as poor (0-3 yes responses), moderate (4-5 yes responses), or good (6-8 yes responses). Data analysis involved descriptive statistics (mean, standard deviation) for growth parameters, independent t-tests for group comparisons, and chi-square tests for associations with demographic variables. RESULTS: Demographic analysis revealed that older children (3-5 years), those from higher-income families, and children with more educated parents were more likely to attend daycare, whereas younger children, those from lower-income families, and those with less-educated parents were predominantly cared for at home. A gender distribution imbalance was observed, with more female children in daycare. Growth pattern analysis showed that poor growth was found in 12 (20.00%) daycare children versus 6 (10.00%) home-care children, while good growth was observed in 12 (20.00%) daycare children compared to 22 (36.67%) home-care children. Statistical comparisons of weight ($t = 0.2088$, $p > 0.05$), height ($t = 0.3900$, $p > 0.05$), and BMI ($t = 0.5581$, $p > 0.05$) revealed no significant differences between groups. Chi-square analysis indicated significant associations between growth patterns and age ($p = 0.03$ for daycare, $p = 0.04$ for home care) and gender ($p = 0.02$ for daycare, $p = 0.01$ for home care). Family income significantly influenced growth in home-care children ($p = 0.04$), while maternal education showed a strong association with growth in daycare children ($p = 0.008$). Paternal education had no significant impact in either group. INTERPRETATION AND CONCLUSION: The study found that home-care children had a higher proportion of good growth patterns compared to daycare children, suggesting possible advantages in nutrition, parental supervision, and meal regularity in home settings. However, no significant differences were observed in weight, height, or BMI between the groups, indicating that growth is influenced by multiple factors beyond care giving settings. Significant associations with age, gender,

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maternal education, and family income highlight the need for targeted nutritional and health interventions in daycare centers to enhance child growth and well-being.

Keywords: Child Growth, Daycare Centers, Home Care, Metropolitan Area

INTRODUCTION

The growth and development of children aged 1-6 years is a critical area of study, as this period lays the foundation for lifelong health and well-being. Understanding the impact of different care giving environments—specifically daycare centers versus home care—is essential for parents, educators, and policymakers. Child growth encompasses not only physical development but also cognitive, emotional, and social aspects. Research indicates that early childhood experiences significantly shape a child's future health and developmental trajectory. Proper nutrition, emotional support, and stimulating interactions are vital during these formative years. Studies have shown that children who receive nurturing care tend to exhibit better health outcomes and developmental milestones compared to those who do not receive adequate care (Lowry, 2012).

Daycare centers provide structured environments where children can engage in educational activities and social interactions with peers. These centers often employ trained staff who facilitate learning through play and organized activities. The benefits of daycare include exposure to diverse social settings, which can enhance social skills and cognitive development (Morrissey, 2008). However, concerns exist regarding the potential for increased illness due to higher exposure to other children (Erdem et al., 2019). Children in daycare learn to interact with peers, fostering social skills, while daycare programs often include educational curricula that promote cognitive skills. Trained caregivers provide a stimulating environment that may enhance developmental outcomes; however, increased exposure to illnesses is a noted concern for children in daycare settings (Erdem et al., 2019), and some studies suggest that children in daycare may exhibit more behavioral problems compared to those cared for at home (Morrissey, 2008).

In contrast, home care typically offers a more personalized approach to child-rearing. Parents or family members provide direct care, allowing for tailored educational experiences based on the child's individual needs. This setting often emphasizes strong emotional bonds and individualized attention, which are crucial for healthy attachment and emotional development. Home care provides personalized attention where children receive one-on-one care that can be customized to their learning pace. It fosters secure attachments between caregivers and children while allowing parents to adapt daily routines to suit their child's needs. However, children may have fewer opportunities for peer interaction compared to those in daycare, and parents may lack access to educational resources available in structured daycare programs. Research has shown mixed results regarding the impact of daycare versus home care on children's growth patterns. While some studies indicate no significant difference in overall developmental outcomes between children in daycare and those cared for at home (Lowry, 2012), others suggest that children in daycare may benefit from enhanced cognitive skills but face challenges with behavioral regulation (Morrissey, 2008).

In conclusion, both daycare centers and home care offer unique advantages and challenges that influence children's growth patterns. The choice between these options should consider individual family circumstances, including parental availability, financial resources, and the child's specific needs.

NEED FOR THE STUDY

The need for this study arises from the increasing recognition of the importance of early childhood development and the varying impacts of different caregiving environments on children's growth. Globally, the child care services market is projected to grow significantly, with estimates indicating a rise from USD 219.35 billion in 2023 to USD 404.46 billion by 2034, reflecting a compound annual growth rate (CAGR) of 5.72% (Towards Healthcare, 2024). This growth is largely driven by the rising number of working parents who require reliable childcare solutions, as well as an increasing awareness of the significance of early childhood education (Grand View Research, 2023).

In India, the demand for childcare services is also on the rise due to changing family structures and socio-economic factors. The National Family Health Survey (NFHS-5) reported that approximately 38%

of children under five years are stunted, indicating a significant concern regarding child growth and development (Ministry of Health and Family Welfare, 2021). Rajasthan, specifically, has been noted for its challenges in child nutrition and health, with a stunting rate of around 30.7%, which is higher than the national average (NFHS-5). Local data from Rajsamand district further highlights these issues; recent surveys indicate that nearly 40% of children in this region face growth-related problems due to inadequate nutrition and limited access to quality childcare services. The disparities between daycare centers and home care can significantly influence these growth patterns. Research suggests that children in structured daycare environments may benefit from enhanced cognitive skills and socialization opportunities but may also face challenges such as increased exposure to illnesses (Erdem et al., 2019). Conversely, home care often provides personalized attention but may lack the socialization experiences found in daycare settings (Morrissey, 2008). Given these statistics and trends, it is crucial to investigate how different caregiving environments affect children's growth patterns in Rajsamand and beyond. This study aims to contribute valuable insights into child development practices that can inform policy decisions and improve outcomes for children aged 1-6 years.

OBJECTIVES OF THE STUDY

1. To assess the growth patterns (height, weight, and BMI) of children attending daycare centers and cared for at home.
2. To assess the level of growth patterns of children attending daycare centers and cared for at home
3. To compare the growth patterns of children in both caregiving settings.
4. To find out the association between level of growth pattern with their selected demographic variables.

ASSUMPTIONS

1. Parents/guardians will provide honest and accurate responses regarding their child's growth-related factors, including nutrition, physical activity, and caregiving practices.
2. The growth patterns of children are influenced by caregiving settings, lifestyle factors, and socio-economic conditions.
3. The measurement tools used (height, weight, and BMI assessment) will provide reliable and valid data to evaluate the growth patterns of children.
4. The selected daycare centers and home-care settings represent the broader population of children in the metropolitan area.

RESEARCH METHODOLOGY

Research Approach:

A quantitative non-experimental research approach was employed to analyze and compare the growth patterns of children attending daycare centers and those cared for at home.

Research Design

A comparative descriptive research design was employed to analyze and compare the growth patterns of children attending daycare centers and those cared for at home.

Study Setting

The study was conducted in the metropolitan area of Rajsamand city, which includes a diverse population with varying socio-economic backgrounds and caregiving practices.

Population and Sample

Target Population: Children aged 1 to 6 years attending daycare centers or receiving home care in Rajsamand city.

Sample Size: A total of 120 children, with 60 from daycare centers and 60 cared for at home.

Sampling Technique: Stratified random sampling was used to ensure representation of children from different socio-economic strata and care giving settings.

Inclusion Criteria

- Children aged 1 to 6 years.
- Children who have been consistently attending daycare or receiving home care for at least one year.
- Parents/guardians who provided informed consent.

Exclusion Criteria

- Children with known chronic illnesses or congenital anomalies affecting growth.
- Children whose parents did not consent to participate.

Data Collection Tools

Section 1: Demographic Data: This section gathers basic details such as age, gender, type of childcare, family income, and parental education level. These factors help analyze their influence on the child's growth and development.

Section 2: Growth Assessment: This section records the child's height, weight, and BMI, which is calculated using the formula: BMI = Weight (kg) ÷ Height² (m^2). The data helps compare growth patterns between daycare and home-care children.

Section 3: Checklist for Growth Influencing Factors: This checklist assesses nutrition, physical activity, sleep, and screen time. Responses indicate whether the child follows a healthy routine or is at risk of growth concerns.

Interpretation Based on Score: A good growth pattern is indicated when a child receives 6-8 "Yes" responses, signifying healthy development with no major concerns. A moderate growth pattern corresponds to 4-5 "Yes" responses, suggesting that the child may require some lifestyle and dietary improvements to enhance growth. A poor growth pattern is identified with 0-3 "Yes" responses, indicating that the child is at risk and may require intervention and parental guidance to address potential growth deficiencies

This tool helps analyze how childcare setting, lifestyle, and demographic factors impact growth. Findings can guide nutritional counseling, physical activity recommendations, and parental awareness programs.

Ethical Considerations

- Approval was obtained from the institutional ethics committee.
- Written informed consent was secured from all participants' parents or guardians.
- Confidentiality and anonymity of participants were maintained throughout the study.

Data Analysis

- Descriptive statistics (mean, standard deviation) were used to summarize growth parameters.
- Inferential statistics (independent t-tests) were applied to compare growth patterns between the two groups.

- Chi-square was used to find association between growth patterns and selected demographic variables.

RESULTS

Distribution of frequency and percentage analysis on the basis of selected demographic variables:

N = 60+60

S. N.	Demographic Variable		Daycare Center		Home Care Center	
			Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
1	Age of Child	1-2 years	17	28.33	25	41.67
		3-4 years	19	31.67	21	35.00
		5-6 years	24	40.00	14	23.33
2	Gender	Male	22	36.67	28	46.67
		Female	38	63.33	32	53.33
3	Family Income Level	Low	9	15.00	12	20.00
		Middle	32	53.33	37	61.67
		High	19	31.67	11	18.33
4	Mother's Education Level	No Formal Education	6	10.00	12	20.00
		Primary	18	30.00	19	31.67
		Secondary	20	33.33	21	35.00
		Higher Education	16	26.67	8	13.33
5	Father's Education Level	No Formal Education	11	18.33	10	16.67
		Primary	16	26.67	21	35.00
		Secondary	15	25.00	17	28.33
		Higher Education	18	30.00	12	20.00

The table-1 presents the distribution of **demographic variables** among children attending daycare centers and those cared for at home. A total of **120 children** were included in the study, with **60 children** in each group. The findings are detailed below:

1. Age of the Child: Among children attending daycare centers, 17 children (28.33%) were aged 1-2 years, while 19 children (31.67%) were in the 3-4 years age group. The largest proportion, 24 children (40.00%), belonged to the 5-6 years category.

For children in home care, 25 children (41.67%) were in the 1-2 years age group, whereas 21 children (35.00%) belonged to the 3-4 years category. A smaller proportion, 14 children (23.33%), was aged 5-6 years compared to daycare children. This suggests that older children (5-6 years) were more likely to be enrolled in daycare, while younger children (1-2 years) were more commonly cared for at home.

2. Gender: In daycare centers, 22 children (36.67%) were male, while 38 children (63.33%) were female. This shows that there were more girls than boys in daycare settings.

In contrast, in the home care group, 28 children (46.67%) were male, and 32 children (53.33%) were female. Although the proportion of boys and girls in home care was more balanced, there were still slightly more girls than boys.

3. Family Income Level: Regarding family income levels, in daycare centers, 9 families (15.00%) belonged to the low-income group, while 32 families (53.33%) were in the middle-income category. Additionally, 19 families (31.67%) had a high income.

For home care children, 12 families (20.00%) were in the low-income group, while the majority, 37 families (61.67%), belonged to the middle-income category. A smaller proportion, 11 families (18.33%), was in the high-income group. This suggests that children from higher-income families were more likely to be enrolled in daycare, while those from middle-income families were more evenly distributed between daycare and home care.

4. Mother's Education Level: In daycare centers, 6 mothers (10.00%) had no formal education, while 18 mothers (30.00%) had completed primary education. Additionally, 20 mothers (33.33%) had attained secondary education, and 16 mothers (26.67%) had higher education.

Among home care children, 12 mothers (20.00%) had no formal education, while 19 mothers (31.67%) had primary education. The majority, 21 mothers (35.00%), had secondary education, and only 8 mothers (13.33%) had higher education. This suggests that children whose mothers had higher education were more likely to be in daycare centers, whereas those with lower education levels preferred home care.

5. Father's Education Level: For daycare children, 11 fathers (18.33%) had no formal education, while 16 fathers (26.67%) had completed primary education. Additionally, 15 fathers (25.00%) had secondary education, and 18 fathers (30.00%) had higher education.

For children in home care, 10 fathers (16.67%) had no formal education, while 21 fathers (35.00%) had primary education. Also, 17 fathers (28.33%) had secondary education, and 12 fathers (20.00%) had higher education. This indicates that higher paternal education levels were associated with daycare enrollment, whereas lower education levels were more prevalent in home care settings.

This analysis highlights key demographic differences between children attending daycare centers and those cared for at home. The data suggest that older children (3-5 years) and children from higher-income and more educated families were more likely to be enrolled in daycare centers. Conversely, children from lower-income and less-educated families were more frequently cared for at home. The study also found that the proportion of females was higher in both settings, but daycare settings had a significantly higher proportion of girls compared to home care.

Distribution of frequency and percentage analysis on the basis of growth pattern of children attending daycare centers or cared at home:

N= 60+60

Level of Growth	Daycare Centre Children		Home care Children	
	Frequency (n)	Percentage (%)	Frequency (n)	Percentage (%)
Poor Growth	12	20.00	6	10.00
Moderate Growth	36	60.00	32	53.33
Good Growth	12	20.00	22	36.67
Total	60	100.00	60	100.00

The table-2 presents the distribution of growth patterns (poor, moderate, and good growth) among children attending daycare centers and those cared for at home. The analysis is based on a total sample of 120 children (60 from daycare and 60 from home care).

Poor Growth Pattern: Among daycare children, **12 (20.00%)** exhibited a **poor growth pattern**, indicating concerns related to nutrition, physical activity, or other influencing factors. In comparison, only **6 (10.00%)** of home-care children showed poor growth, suggesting slightly better growth conditions at home.

Moderate Growth Pattern: The majority of children in both groups fell into the **moderate growth category**. In daycare centers, **36 (60.00%)** of children exhibited moderate growth, while among home-care children, **32 (53.33%)** had moderate growth patterns. This suggests that while most children are growing within an acceptable range, some improvements in diet, physical activity, or other health factors may be required.

Good Growth Pattern: A **good growth pattern** was observed in **12 (20.00%)** of daycare children, whereas a significantly higher number, **22 (36.67%)**, of home-care children demonstrated good growth. This indicates that children cared for at home may have **better access to balanced nutrition, regular meal patterns, and parental supervision**, contributing to healthier growth outcomes.

Overall Comparison: The results indicate that home-care children generally showed a **higher percentage of good growth patterns (36.67%)** compared to daycare children (20.00%). However, a slightly higher percentage of daycare children fell into the **moderate category (60.00%)** compared to home-care children (53.33%). The findings highlight the need for **nutritional improvements and health interventions in daycare settings** to enhance children's growth patterns.

The table-3 presents a comparative statistical analysis of weight, height, and BMI among children attending daycare centers and those cared for at home. The mean, standard deviation (SD), and t-values were calculated to determine if there were significant differences between these two groups. The tabular t-value at df=118 was 1.66, and the significance level was set at $p>0.05$, indicating that differences were not statistically significant.

1. Comparison of Weight (Kg): The analysis of weight among daycare center and home-care children reveals that the mean weight for daycare children was 14.2 kg with a standard deviation of 3.6, while home-care children had a slightly higher mean weight of 14.4 kg with the same SD of 3.6. The statistical comparison yielded a t-value of 0.2088, which is much lower than the tabular t-value of 1.66 at a significance level of $p>0.05$. This indicates that the difference in weight between the two groups is not statistically significant. The similar weight distribution suggests that both daycare and home-care children receive comparable nutrition and dietary intake, leading to parallel weight development patterns in early childhood.

2. Comparison of Height (Cm): In terms of height, the mean height recorded for daycare center children was 96.2 cm with a standard deviation of 12.2, while home-care children had a mean height of 97.0 cm with an SD of 10.9. The calculated t-value of 0.3900 was once again lower than the tabular value of 1.66, establishing that the height difference between daycare and home-care children was not statistically significant ($p>0.05$). This suggests that growth patterns related to height are consistent across both groups, implying that neither daycare attendance nor home care provides a distinct advantage in terms of height development. Factors such as genetic predisposition, overall nutrition, and physical activity levels may have a more substantial role in determining height rather than the caregiving environment itself.

3. Comparison of BMI: When comparing BMI, daycare center children had a mean BMI of 15.3 with a standard deviation of 2.1, while home-care children had a mean BMI of 15.1 with an SD of 2.0. The statistical analysis resulted in a t-value of 0.5581, which is below the tabular value of 1.66, confirming that the difference in BMI between the two groups is not statistically significant ($p>0.05$). Since BMI is an indicator of overall growth and nutritional status, the findings suggest that children in both daycare and home-care settings exhibit similar growth trends and body composition. This further reinforces the idea that factors such as balanced nutrition, physical activity, and genetic factors are more influential in determining BMI than the childcare setting itself. The statistical findings across weight, height, and BMI comparisons indicate that there are no significant differences between children attending daycare centers and those cared for at home. The fact that all calculated t-values are lower than the tabular value of 1.66 ($p>0.05$) suggests that both groups experience similar growth patterns. These results imply that neither daycare attendance nor home care significantly influences a child's weight, height, or BMI. Instead, external factors such as dietary habits, genetic predisposition, and physical activity levels play a more critical role in overall child growth.

Assessment and Comparison of mean, SD of Weight, Height and BMI of children attending daycare centers or cared at home: N=60+60

Group	Variable	Mean	SD	Calculated t-Value	Tabular Value
Daycare center Children	Weight (Kg)	14.2	3.6	0.2088	1.66
Home-care Children		14.4	3.6		
Daycare center Children	Height (Cm)	96.2	12.2	0.3900	1.66
Home-care Children		97.0	10.9		
Daycare center Children	BMI	15.3	2.1	0.5581	1.66
Home-care Children		15.1	2.0		

**Significant, df-118; $p>0.05$ level

Association between level of growth pattern score with their selected demographic variables of children attending daycare centers or cared at home:

N=60+60

S. N.	Demographic Variables	Degree of Freedom	Tabulated Chi-Square Value	Daycare center Children		Home-care Children	
				Chi-Square Value	Level of Significance	Chi-Square Value	Level of Significance
1	Age of Child	6	12.592	15.26	Significance	13.22	Significance
2	Gender	3	7.815	12.31	Significance	16.37	Significance
3	Family Income Level	6	12.592	7.23	Not Significance	13.46	Significance
4	Mother's Education Level	9	16.919	21.79	Significance	11.33	Not Significance
5	Father's Education Level	9	16.919	6.31	Not Significance	13.61	Not Significance

This table-4 presents the association between the growth pattern scores of children and their demographic variables, using the Chi-square test. The significance level is determined by comparing the calculated Chi-square values with the tabulated Chi-square values at their respective degrees of freedom (df). If the calculated Chi-square value is greater than the tabulated value, it indicates a statistically significant association between the demographic variable and the growth pattern of children.

1. Age of the Child and Growth Pattern:

For daycare center children, the Chi-square value was $\chi^2 = 15.26$, df = 6, p = 0.03, which is statistically significant ($p<0.05$). Similarly, for home-care children, the value was $\chi^2 = 13.22$, df = 6, p = 0.04, also significant. This suggests that age significantly influences child growth, as older children may have different dietary habits, physical activity levels, and metabolic requirements compared to younger ones.

2. Gender and Growth Pattern

The Chi-square test for daycare children showed $\chi^2 = 12.31$, df = 3, p = 0.02, indicating a significant association between gender and growth patterns. Similarly, for home-care children, $\chi^2 = 16.37$, df = 3, p = 0.01, suggesting a strong relationship. This finding highlights potential gender-based differences in metabolism, nutritional intake, and activity levels, affecting growth patterns differently in boys and girls.

3. Family Income Level and Growth Pattern

For daycare center children, $\chi^2 = 7.23$, df = 6, p = 0.21, indicating no significant association between family income and growth ($p>0.05$). However, for home-care children, $\chi^2 = 13.46$, df = 6, p = 0.04, showing a significant relationship. This suggests that in home-care settings, financial resources may influence access to nutritious food, medical care, and hygiene practices, whereas in daycare centers, external factors such as structured meals and activity programs might mitigate income-related disparities.

4. Mother's Education Level and Growth Pattern

Among daycare children, $\chi^2 = 21.79$, df = 9, p = 0.008, indicating a strong and statistically significant association. This suggests that mothers with higher education levels are likely to have better knowledge about child nutrition, hygiene, and overall healthcare, positively influencing growth. However, for home-care children, $\chi^2 = 11.33$, df = 9, p = 0.26, showing no significant association. This may indicate that other variables, such as household environment and caregiving practices, play a stronger role in home-based child growth.

5. Father's Education Level and Growth Pattern

For daycare children, $\chi^2 = 6.31$, df = 9, p = 0.71, and for home-care children, $\chi^2 = 13.61$, df = 9, p = 0.14, both indicating no statistically significant association. This suggests that a father's education level does not directly impact child growth in either daycare or home settings, possibly because primary caregiving responsibilities and child nutrition decisions are often influenced more by mothers.

The study findings reveal that age and gender have a significant impact on the growth patterns of children in both daycare and home-care settings ($p<0.05$). Family income influences growth in home-care children but not in daycare attendees, indicating that structured childcare environments may buffer economic disparities. Additionally, mother's education significantly affects growth in daycare children, while father's education does not show any notable association in either group ($p>0.05$). These insights highlight the need for targeted interventions focusing on maternal education, nutritional awareness, and financial support to promote optimal child growth.

DISCUSSION

The study, "A Comparative Study on the Growth Patterns of Children Attending Daycare Centers Versus Those Cared for at Home in a Selected Metropolitan Area," aimed to assess and compare growth patterns, including height, weight, and BMI, among children aged 1-6 years in different caregiving settings. Additionally, it analyzed associations between growth patterns and demographic factors.

A comparative descriptive research design with a quantitative non-experimental approach was employed. The study was conducted in Rajsamand city, involving 120 children (60 daycare, 60 home care) selected through stratified random sampling. The inclusion criteria required children to have spent at least one year in the respective caregiving setting, while children with chronic illnesses or congenital anomalies were excluded. Data collection tools included a demographic questionnaire, growth assessment (height, weight, BMI), and a growth-influencing factors checklist. Ethical approvals and parental consent were obtained prior to data collection. The data were analyzed using descriptive statistics, independent t-tests, and chi-square tests to compare growth patterns and assess demographic associations.

The demographic analysis revealed that older children (3-6 years), those from higher-income families, and children with more educated parents were more likely to attend daycare. Gender distribution showed a higher proportion of girls in daycare than in home care. In terms of growth patterns, good growth was observed in 36.67% of home-care children compared to 20.00% in daycare children, whereas poor growth was more prevalent among daycare children (20.00% vs. 10.00% in home-care children). However, a comparative analysis of height, weight, and BMI found no statistically significant differences ($p > 0.05$) between the two groups, suggesting that both settings provide similar conditions for physical growth.

The chi-square analysis indicated significant associations between age and growth patterns in both daycare ($\chi^2 = 15.26$, df = 6, p = 0.03) and home-care settings ($\chi^2 = 13.22$, df = 6, p = 0.04), showing variations in growth across different age groups. Similarly, a significant association was found between gender and growth patterns in daycare ($\chi^2 = 12.31$, df = 3, p = 0.02) and home care ($\chi^2 = 16.37$, df = 3, p = 0.01), indicating potential influences of metabolism, nutrition, and activity levels. The findings also revealed a significant association between family income and growth patterns for home-care children ($\chi^2 = 13.46$, df = 6, p = 0.04) but not for daycare children ($\chi^2 = 7.23$, df = 6, p = 0.21), suggesting that

financial resources impact home-care children more significantly. Moreover, maternal education was significantly associated with growth patterns in daycare children ($\chi^2 = 21.79$, df = 9, p = 0.008) but not in home care ($\chi^2 = 11.33$, df = 9, p = 0.26), highlighting the role of maternal education in influencing child growth in daycare settings. In contrast, father's education showed no significant association with growth patterns in either daycare ($\chi^2 = 6.31$, df = 9, p = 0.71) or home care ($\chi^2 = 13.61$, df = 9, p = 0.14).

CONCLUSIONS

In conclusion, while the study found no significant differences in overall growth (weight, height, BMI) between daycare and home-care children, home-care children demonstrated better growth patterns than those in daycare, possibly due to better nutrition and parental supervision. Age, gender, maternal education, and family income emerged as key determinants of child growth, with maternal education showing a more pronounced impact on daycare children. These findings emphasize the need for nutritional and health interventions in daycare settings to optimize child growth outcomes and ensure better overall development.

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