Original Article

Perception, Awareness and Attitude of Caregivers of Under-Five Years Old Children Towards Social Determinants on Health Outcomes in Ilorin South Local Government

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ARTICLE INFO	ABSTRACT
	Background: Child health outcomes are significantly affected by social determinants, including socioeconomic status, access to healthcare, nutrition, environmental conditions and social support. Caregivers' perceptions, awareness and attitudes toward these factors play a crucial role in decision-making for children under five. However, empirical evidence from contexts like Ilorin South Local Government Area (LGA) remains scarce. **Objective:** This study aims to assess the impact of selected social determinants on health outcomes among children under five and to explore how caregivers' perceptions and attitudes relate to these determinants.
	Methodology: A descriptive cross-sectional quantitative design was utilized, administering structured questionnaires to 343 caregivers of children under five years. Analyzing 309 valid responses (response rate: 90.1%), we gathered data on caregivers' socioeconomic characteristics, awareness of social determinants and attitudes toward health practices. Data analysis employed descriptive statistics and Chi-square tests to assess associations. Results: Significant associations were found between socioeconomic status, healthcare access, nutrition and environmental conditions with child health outcomes. Caregivers exhibiting higher awareness and positive attitudes towards these determinants reported better health outcomes for their children.
Corresponding Author: **Issah Rukayat Abaya** Department of Public Health, Faculty of Basic Medical Sciences, Al-Hikmah University, Ilorin, Kwara State, Nigeria. *Phone number: +2348034614609* *Email:* rubotaphy4real@gmail.com	Conclusion: This study highlights the essential role of social determinants in child health, emphasizing the need for enhanced caregiver education and community-based interventions in Ilorin South LGA. Please cite this article as: Abaya, R.I., Kayode, B. & Abdulrahman, B. (2026). Perception, Awareness and Attitude of Caregivers of Under-Five-Year-Old Children Towards Social Determinants on Health Outcomes in Ilorin South Local Government. *Al-Hikmah Journal of Health Sciences, 5*(1), 71-76.

Introduction

The health and survival of children under five years old are vital indicators of a nation's overall development, socio-economic stability and healthcare system effectiveness. This critical age is marked by rapid physical, cognitive and emotional growth, making children particularly vulnerable to their environmental and social conditions. Globally, child health remains a major public health concern. According to the World Health Organization (WHO, 2022), an estimated 5 million children under the age of five died in 2020, with nearly 2.4 million deaths

occurring among newborns within the first 28 days of life. Although significant progress has been made in reducing under-five mortality rates (U5MR) in recent decades, the global mortality rate in 2020 remained 37 deaths per 1,000 live births (WHO, 2022).

Sub-Saharan Africa continues to bear a disproportionate share of this burden. With a U5MR of 74 deaths per 1,000 live births, the region's rate is 14 times higher than that of high-income regions such as Europe and North America (WHO, 2022). This persistent inequity underscores the urgent need for targeted interventions to address the preventable causes of mortality that disproportionately affect African children. Furthermore, Nigeria remains one of the countries contributing most significantly to this adverse health statistic. In 2020 alone, approximately 844,000 Nigerian children under the age of five died (WHO, 2022). Many of these deaths are attributable to preventable and treatable conditions including pneumonia, diarrhea, malaria, birth asphyxia, neonatal complications and malnutrition. Nearly half of deaths in children under five are associated with undernutrition, particularly in low- and middle-income countries (WHO, 2024).

Also, Preventable childhood deaths can be significantly reduced through timely and equitable access to vaccinations, skilled birth attendance, exclusive breastfeeding, adequate nutrition, sanitation and prompt healthcare. However, persistent disparities in access to these life-saving interventions remain a major challenge in regions with limited healthcare infrastructure.

Ilorin South Local Government Area (LGA), Kwara State, exemplifies this challenge. Ilorin South LGA faces multifaceted social and environmental issues that negatively influence child health outcomes. Many households experience poverty, food insecurity, inadequate access to clean water, poor waste management and overcrowded housing. These conditions exacerbate the risk of water-borne and communicable diseases. According to UNICEF (2023), inadequate sanitation contributes to over 829,000 deaths annually, especially among children. Low levels of maternal education also remain a significant barrier to child health. Evidence shows that educated mothers are more likely to adopt appropriate health-seeking behaviors, ensure proper nutrition, maintain hygiene practices and access antenatal and postnatal services when necessary (Oweibia et al., 2023).

Statement of the Problem
Under-five morbidity and mortality remain high in Ilorin South LGA despite global advances in child health. Children continue to suffer from preventable conditions such as malaria, diarrhea, pneumonia, and malnutrition (Oweibia et al., 2020). This is largely due to underlying social determinants of health.

Aim and Objectives
This research aims to investigate the influence of social determinants on health outcomes among children under five years old in Ilorin South Local Government Area of Kwara State, Nigeria.

Research Objectives
i. To assess caregivers' socioeconomic status and its influence on the health outcomes of children under five in Ilorin South LGA. ii To explore nutritional and food security conditions of households with children in the study area.

Research Questions
How do variations in socioeconomic status, including income stability and parental employment, specifically influence the incidence of preventable health conditions among children in Ilorin South LGA, considering the unique cultural and environmental context of this region? 2. In what ways does the level of maternal education interact with caregivers' perceptions of nutrition and food security to affect child health outcomes and how can these insights inform targeted public health interventions in low-resource settings like Ilorin South LGA?

Research Hypothesis:
H_1: There is no statistically significant relationship of socioeconomic status (income, employment, and financial security) and health outcomes among children under the age of five.
H_2: There is no statistically significant relationship between nutrition, food security and health outcomes among children under the age of five.

Significance of the Study
This study is important because it examines how social determinants such as socioeconomic status, maternal education, healthcare access, environmental conditions and cultural practices affect the health of children under five in Ilorin South LGA.

Scope of the Study
The study focuses on the influence of social determinants, such as socioeconomic status, maternal education, healthcare access, environmental conditions, and cultural practices on health outcomes of children under five in Ilorin South LGA, Kwara State.

Methodology
This study adopted a descriptive cross-sectional research design to examine the impact of social

determinants on health outcomes among children under five years in Ilorin South Local Government Area (LGA), Kwara State, Nigeria. The validity and reliability of the research instrument were established in Ilorin West Local Government Area, Kwara State.

Study population
This comprises caregivers of children under five years residing in the LGA. A sample size of 343 caregivers was determined using the standard formula for large populations, with allowance for non-response. A multi-stage sampling technique was employed, involving stratification into urban and rural communities, systematic selection of households with under-five children and purposive selection of one primary caregiver per household.

Sample size
The minimum sample size was determined using the appropriate formula for sample size determination when the variable of interest being measured is a proportion, as shown below.

$$n = \frac{z^2 pq}{d^2}$$

Where:
n = the desired sample size when the population is greater than 10,000
z = the standard normal deviate, usually set at 1.96
p = proportion of the target population with exposure risk is estimated at 70% by a past study (Święczkowski et al.,2025)
q = (1.0 – p) 0.3
d = degree of accuracy, set at 0.05
Therefore

$$n = \frac{(1.96)^2 (0.7)(0.3)}{(0.05)^2}$$
$$= \frac{(3.8416)(0.21)}{0.0025}$$
$$= 323$$

However, when population is less than 10,000, the formula below is used to calculate the sample size.

$$n_f = \frac{n}{1 + \frac{n}{N}}$$

Where:
n f = desired sample size when target population size is less than 10,000
N = the estimated population size (7,000)
n = desired sample size when target population is greater than 10,000
Therefore

$$n_f = \frac{323}{1 + \frac{323}{7000}}$$
$$n_f = \frac{323}{1 + 0.0461}$$
$$n_f = \frac{323}{1.0461}$$

$$n_f = 308.75 \approx 309$$

For 10% non-response rate: $\frac{309}{0.9} = 343$

A sample size of 343 respondents in Ilorin South was interviewed for this study.

Method of Data Analysis
For data analysis, both descriptive and Chi-Square analysis were used. Descriptive statistics such as frequencies, percentages and means summarize the demographic and health-related data collected from caregivers. Chi-Square analysis was employed to explore the relationships between social determinants (such as socioeconomic status, maternal education, and healthcare access) and child health outcomes (such as nutritional status and immunization rates). Regression analysis will help identify the strength and direction of these relationships. Using SPSS (Statistical Package for the Social Sciences), which facilitates efficient data handling and precise statistical testing, ensures robust and reliable results.

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Result
Table 1: Demographic Characteristics of Respondents (N = 309)

Variable	Category	Frequency	Percentages (%)
Age	20–30 years	118	38.2
	31–40 years	129	41.7
	Above 41 years	62	20.1
Marital Status	Single	92	29.8
	Married	192	62.1
	Divorced	14	4.5
	Widowed	11	3.6
Religion	Islam	151	48.9
	Christianity	143	46.3
	Others	15	4.9
Ethnicity	Hausa	84	27.2
	Igbo	49	15.9
	Yoruba	151	48.9
	Others	25	8.1
Income	Below ₦70,000	96	31.1
	₦70,000–₦100,000	167	54.0
	Above ₦100,000	46	14.9

Researcher's Fieldwork (2025)

Most caregivers were aged 31–40 years (41.7%), married (62.1%), predominantly Yoruba (48.9%), practicing Islam (48.9%), and earning ₦70,000–₦100,000 monthly (54%).

Table 2: *Descriptive Statistics for Socioeconomic Status*

Statements	SD f (%)	D f (%)	N f (%)	A f (%)	SA f (%)	Mean
Household financial situation rating	31(10.0%)	54(17.5%)	102(33.0%)	87(28.2%)	35(11.3%)	3.13
Highest level of education	15(4.9%)	37(12.0%)	88(28.5%)	129(41.7%)	40(12.9%)	3.46
Household size category	22(7.1%)	45(14.6%)	94(30.4%)	102(33.0)	46(14.9%)	3.34
Access to stable income	41(13.3%)	63(20.4%)	78(25.2%)	84(27.2%)	43(13.9%)	3.08
Household living conditions	38(12.3%)	55(17.8%)	91(29.4%)	92(29.8%)	33(10.7%)	3.09
Grand Mean =						3.22

Researcher's Fieldwork (2025)
Note: SA = Strongly Agree, A = Agree, N = Neutral, D = Disagree, SD = Strongly Disagree. Responses scored 1–5; Mean benchmark = 3.00 (≥3.00 = positive tendency).

The analysis of the demographic characteristics from Table 1 reveals several key insights about the respondents (N = 309).
H_{01}: There is no significant relationship between socioeconomic status and health outcomes among children under five. Chi-Square Value (χ^2): 32.47. Degrees of Freedom (df): 4. P-value: < .001 (statistically significant). Children from higher socioeconomic status households are more likely to enjoy good health compared to those from lower status households. The majority of respondents fall within the 31–40 age range, suggesting they are at a stage in their careers or personal lives where they have gained significant experiences that could influence survey responses. The representation of younger (20–30 years) and older (above 41 years) groups are still notable, indicating a diverse age range in the data. A significant majority (62.1%) of respondents are married, which may affect their perspectives and priorities, possibly related to family or partnerships. The distribution of religions shows a near balance between Islam and Christianity, suggesting a diverse religious background among respondents. The Yoruba ethnic group constitutes almost half of the respondents, with the Hausa and Igbo groups also represented. This diversity may provide varied perspectives depending on cultural contexts and experiences, enriching the data collected. The majority of respondents (54%) fall within the ₦70,000–₦100,000 income range, indicating a middle-income demographic. This may correlate with spending habits, economic stability, and lifestyle choices that could affect responses to questions related to financial topics. The grand mean of 3.22 indicates a generally positive perception of socioeconomic status across the board. The highest levels of education were rated most favorably, reflecting its importance to respondents,

while financial stability and access to income show mixed perceptions, warranting further investigation.

Table 3: *Descriptive Statistics for Nutrition and Food Security*

Statements	Very Low (%)	Low (%)	Neutral (%)	High (%)	Very High (%)	Mean
Household food security	47 (15.2)	69 (22.3)	88 (28.5)	72 (23.3)	33 (10.7)	2.92
Child fruit/vegetable intake	29 (9.4)	63 (20.4)	81 (26.2)	89 (28.8)	47 (15.2)	3.20
Food shortage experience	33 (10.7)	50 (16.2)	95 (30.7)	93 (30.1)	38 (12.3)	3.17
Safe drinking water access	58 (18.8)	36 (11.7)	51 (16.5)	79 (25.6)	85 (27.5)	3.32
Quality of child's diet	34 (11.0)	60 (19.4)	97 (31.4)	72 (23.3)	46 (14.9)	3.12
Grand Mean =						3.15

Researcher's Fieldwork (2025)
Responses scored 1–5; Mean benchmark = 3.00 (≥3.00 = positive tendency).

Table 3 shows that caregivers generally report fair nutritional conditions for their children under five. Safe drinking water access has the highest mean (M = 3.32), indicating that most households have reliable water sources. Child fruit and vegetable intake (M = 3.20) and experience of food shortages (M = 3.17) reflect a moderate but adequate level of dietary diversity and food security. Household food security (M = 2.92) and quality of child's diet (M = 3.12) suggest that while basic nutritional needs are mostly met, there is room for improvement. The grand mean of 3.15, being above the 3.00 benchmark, indicates that nutrition and food security are generally sufficient to support positive health outcomes for children under five, though targeted interventions could further enhance child well-being.

Discussion of Finding
Hypothesis:
H_{o2}: There is no significant relationship between nutrition/food security and health outcomes among children under five. Chi-Square Value (χ^2): 30.63. Degrees of Freedom (df): 4. P-value: < .004 (statistically significant). Adequate nutrition and food security significantly influence health outcomes, with children having better health when food security is ensured. This study demonstrates that child health outcomes among under-five children in Ilorin South LGA are strongly shaped by multiple, interconnected social determinants. Socioeconomic status emerged as a significant predictor, with higher household income, education and stability associated with better child health, while lower status increased vulnerability to illness. Maternal education played a key mediating role in healthcare utilization, caregiving practices and nutrition, consistent with the Social Determinants of Health framework. Adequate nutrition and food security were strongly linked to positive health outcomes. Children with access to diverse diets and safe drinking water experienced better health, whereas food insecurity and poor nutrition were associated with increased morbidity, highlighting the interaction between biological and social factors in child well-being. Environmental conditions also significantly influenced health outcomes. Poor sanitation and unsafe water conditions

Conclusion
The study concludes that the health outcomes of children under five years old in Ilorin South Local Government are significantly influenced by multiple social determinants. Children from households with higher SES, adequate nutrition, safe environments and strong social support experience better health outcomes, whereas deficiencies in these areas increase vulnerability to illness. Limited healthcare access, poor environmental conditions and insufficient social support were identified as critical barriers.
Public health Impact.
This finding will guide policymakers, healthcare providers and NGOs in designing targeted interventions to reduce child morbidity and mortality. It also contributes to academic knowledge by filling gaps about child health determinants in this local context and provides a foundation for future research.

Conflict of Interest
The authors declared that there is no conflict of interest and open to defending any contrary claims

Recommendations
Based on the study's findings, the following recommendations are proposed:
 Implement livelihood support initiatives, skill development programs and adult education campaigns to improve caregivers' financial stability and education.
Implement nutritional education for caregivers, promote dietary diversity and provide fortified foods. For example, the provision of RUFT, RUSF, Lipid based nutrient supplements for malnourished children. Strengthen social support networks to improve caregivers' capacity to provide optimal care.

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