

The Knowledge, Perception And Practices Of Myths Encountered Among Caregivers In Enugu, Nigeria: A Cross-Sectional Study

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Abstract

Introduction: Many beliefs concerning child care abound and these vary across all walks of life.

Assessed the knowledge, perception and practice of these myths among care- givers of children living in Enugu. Our survey found that, there is still a high level of belief in myths and local practices among caregivers in Enugu.

Methods: Study population- caregivers visiting paediatric outpatient clinics in Enugu.

Sampling method- a hospital-based, cross-sectional study. Self- administered questionnaires were used to obtain information from the caregivers.

Analysis-Data collected was analyzed using SPSS version 26.0

Results: shows that 83.7% of the study participants are females while 16.3% are males, giving the male to female ratio as 1:5. Most of the study participants (75.2%) were within the age bracket of 21 and 40 years and the mean \pm SD age was 32.42 ± 9.83 . The most prevalent belief is that the breast nipple must be washed before every feeding, reported by 64.2% of participants. The most commonly practiced belief is that teething causes symptoms, reported by 49.2% of respondents. This is followed by the belief that breast milk can become sour if not consumed for a long period, practiced by 46.6% of respondents. The third most practiced belief is related to "Jedi jedi" (30.6%), a condition locally associated with gastrointestinal distress. These findings highlight that, while traditional beliefs are pervasive across all age groups, younger participants are more likely to adhere to certain beliefs, particularly those related to dietary restrictions and traditional remedies for convulsions.

Conclusion: It can be inferred from the findings of this survey that, there is still a high level of belief in myths and local practices among caregivers of children in Enugu, despite efforts to educate the general public about childhood illnesses.

This study also shows that maternal education is an important factor for improved outcomes in paediatric care in our environment

Keywords: Paediatric, myths, child care, belief, nta, jedi jedi, Enugu, perception, practice

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I. Introduction:

"Myth" according to the Oxford dictionary is a widely held but false belief or idea. In a broad sense, the word can refer to any traditional story, popular misconception or imaginary entity. Paediatric myths are beliefs concerning child care that do not exist or are false as proven by scientific studies. In our environment, many beliefs concerning child care abound and vary from tradition to tradition, place to place and religion to religion. Most of these myths are not only harmful but also irrelevant to the physical wellbeing of children. Every culture has beliefs about health, disease, treatment, and health care providers. People tend to bring their beliefs and the practices that accompany them into the health care system and this often proves challenging to health care professionals who have been trained in the philosophy, concepts and practices of orthodox medicine.

Due to variations in ethnicity, religious, educational and cultural beliefs, myths in child care cut across various levels; from feeding practices to perception of ill-health, health seeking behaviour, mode of treatments of diseases, etc. Myths in Paediatrics have been classified as food related, disease related and treatment related. Some examples of food related myths are methods of breastfeeding, time of commencement of complementary feeds, weaning of breast-milk, use of meat, eggs, sugar, etc. In developing countries certain foods are being avoided during pregnancy and as well not to be given to children. Some examples of these foods are: Snail and grass – cutter meat, avoided because it is believed that eating these meat will make the baby sluggish and as well make the labour difficult. Also, avoidance of egg in children less than 2 years old because of the belief that starting eggs early for a child could predispose them to stealing later in life is a popular myth that has impacted negatively on the health of children.

Traditional beliefs surrounding pediatric illnesses often lead to a misunderstanding of normal childhood developmental processes and the etiology of common diseases. For example, teething is commonly attributed to causing fever, diarrhea, or rashes in infants. This misconception can result in caregivers delaying appropriate medical care, attributing the symptoms to teething rather than seeking timely medical intervention for underlying infections or other serious conditions. The consequences include missed diagnoses, worsening of illness, and, in severe cases, increased child mortality.

In some communities, malnutrition is erroneously referred to as 'nta,' a term often associated with spiritual causes or malevolent forces. Rather than addressing malnutrition through dietary changes or medical treatment, caregivers may resort to traditional healing methods or spiritual interventions, which can exacerbate the condition and lead to long-term growth deficiencies and developmental delays in children. Similarly, the condition known as 'apa afo,' or perceived abdominal organ enlargement, prompts the use of dangerous practices such as applying pressure or massaging the abdomen, potentially causing internal injuries or exacerbating underlying conditions like hepatomegaly or splenomegaly.

Other beliefs, such as 'jedi-jedi,' a condition described as the passage of greenish stool or diaper rash, are believed to be caused by an overconsumption of sugar or certain foods. Caregivers might use local herbal concoctions to "cure" this condition, inadvertently introducing harmful substances to the child's body and potentially leading to poisoning, dehydration, or gastrointestinal complications. Myths surrounding 'dada,' or dreadlocked hair, lead to stigmatization and improper scalp hygiene practices, resulting in a higher risk of scalp infections and dermatological issues.

Misinterpretations of normal anatomical features, such as the presence of fontanelles (soft spots) on a baby's head, known locally as 'ntiwa-isi,' can also result in harmful interventions. The application of caustic substances or pressure on the fontanelles, driven by the belief that these spots signify illness, can cause permanent damage to the developing skull or lead to infections.

Treatment-related myths also pose significant health risks. The use of coconut water or "conquer mixture" for infantile colic is believed to soothe a crying child; however, these remedies can disrupt electrolyte balance or cause choking if improperly administered. For convulsions, some communities employ drastic measures such as burning the feet or creating bodily marks to ward off supposed spiritual causes. Such practices not only delay essential treatment for febrile convulsions or epilepsy but can also result in secondary infections, severe burns, and long-term psychological trauma for the child.

The cumulative impact of these myths is profound. They not only delay presentation at healthcare facilities but also complicate treatment and lead to poor health outcomes. Children may present with advanced stages of otherwise manageable conditions, resulting in increased hospital admissions, prolonged hospital stays, and a higher likelihood of complications or mortality. The persistence of these beliefs places a substantial burden on healthcare systems and professionals, who must address not only the medical condition but also the misinformation that led to it.

Research Questions:

The following research questions are addressed in this study:

1. What are the prevalent pediatric myths known by caregivers in Enugu, Nigeria?
2. How do caregivers perceive these pediatric myths in terms of their validity and impact on child health?

3. To what extent do caregivers apply these myths in their child-rearing practices?
4. What socio-demographic factors influence caregivers' knowledge, perceptions, and practices regarding pediatric myths?
5. What factors shape caregivers' health-seeking behaviors when their beliefs conflict with medical advice?

Aim:

To examine the knowledge, perceptions, and practices of pediatric myths among caregivers in Enugu, Nigeria, and evaluate the influence of socio-demographic factors on these beliefs.

Objectives:

1. Assess caregivers' awareness of common pediatric myths in Enugu.
2. Investigate caregivers' perceptions regarding the validity and implications of these myths.
3. Determine the extent to which caregivers apply these myths in child healthcare practices.
4. Analyze the relationship between caregivers' socio-demographic characteristics (age, education, residence) and their knowledge, perceptions, and practices of pediatric myths.
5. Identify factors influencing caregivers' health-seeking behaviors when confronted with conflicting information between pediatric myths and medical advice.

II. Methodology

Study Location:

This study was conducted in Enugu, the capital city of Enugu State, located in the southeastern region of Nigeria. Enugu State is one of the 36 states in the Federal Republic of Nigeria. As of 2015, the estimated population of Enugu city was 680,700, with a projected growth rate of 1.5% per year, placing the estimated population at approximately 723,576 by 2019. Enugu experiences a tropical savannah climate with an average annual temperature of 26.7°C and a yearly rainfall of about 2000 mm. The city is ethnically diverse, with the Igbo ethnic group being predominant. Civil service is the primary occupation of many residents.

Study Site:

The study was carried out at the Enugu State University Teaching Hospital (ESUTH) in Enugu. ESUTH, a tertiary healthcare institution located in the Government Reserved Area (GRA) of Enugu metropolis in Enugu-North Local Government Area, provides primary and secondary health care services and serves as a referral center for specialized care. The hospital, with a capacity of 400 beds, is equipped with personnel and facilities to cater to various clinical specialties. Data collection took place in the Post-natal Ward, Labour Ward, and Special Care Baby Unit (SCBU) of the hospital, as well as the Children's Outpatient Clinic and Immunization clinic. The Children's clinic operates Monday to Friday, from 8 a.m. to 4 p.m., and is staffed by consultants, senior and junior registrars, house officers, nurses, and administrative personnel while the immunization clinic operates on Wednesdays and Fridays.

Study Design:

This was a hospital-based, cross-sectional study aimed at understanding the knowledge, perceptions, and practices of pediatric myths among caregivers in Enugu, Nigeria. The study employed a self-administered questionnaire to collect data from participants.

Study Population and Sampling:

The study population comprised caregiver-child pairs presenting at the Children's Outpatient (CHOP) and Immunization Clinics of ESUTH.

Study Design, Population and Sampling

Sample size determination: The sample size for this study was determined using the formula below:

$$n = \frac{Z^2 p q}{d^2}$$

Where:

n = Sample size

Z = Statistical standards normal deviation. Hence value of Z at 95% confident interval will be 1.96.

p = the estimated proportion of an attribute that is present in the population (50%)

q = 1-p

d = Desired level of precision set at 0.05

Therefore,

$$n = \frac{(1.96)^2 0.5 (1 - 0.5)}{0.05^2}$$

$$\frac{(0.05)^2}{n = 0.9457}$$

$$n = 378$$

Thus, the minimum sample size required for this study was 378 participants.

Inclusion Criteria:

The study included caregiver/child pairs presenting at the Children’s Outpatient Clinic and Immunization Clinics of ESUTH.

Exclusion Criteria:

There were no exclusion criteria for this study.

Sampling Technique:

A convenience sampling method was employed to select participants. A structured, self-administered questionnaire was used to collect information on caregivers’ knowledge, perceptions, and practices related to pediatric myths. Data were gathered during clinic hours on designated days for outpatient and immunization services.

Data Analysis:

Data was collected via questionnaire. Data was analysed using SPSS version 26.0.

Descriptive statistics which include frequency and percentages shall be used to summarize categorical variables while means and standard deviations were obtained for continuous variables. Associations between socio-demographic factors and the knowledge, perception and practice of myths shall be done using logistic regression.

III. Results

Table 1: Demographic characteristics of the respondents

	Frequency	Percent
Sex		
Male	63	16.3
Female	323	83.7
Age group		
< 21	35	9.1
21 – 30	138	35.8
31 – 40	152	39.4
41 – 50	45	11.7
51 – 60	12	3.1
>60	4	1.0
Religion		
Christian	383	99.2
Traditional	3	0.8
Ethnic group		
Igbo	381	98.7
Hausa	1	0.3
Yoruba	4	1.0
Father’s education		
None	71	18.4
Primary	10	2.6
Secondary	89	23.1
Tertiary	216	56.0
Mother’s education		
None	63	16.3
Primary	5	1.3
Secondary	57	14.8
Tertiary	261	67.6
Father’s occupation		
Civil servant	172	44.6
Trader/business	164	42.5
Farmer	9	2.3
Artisan	29	7.5
Unemployed	12	3.1
Mother’s occupation		
Civil servant	164	42.5
Trader/business	160	41.5

Farmer	9	2.3
Artisan	34	8.8
Unemployed	19	4.9
Socioeconomic class		
1	136	35.2
2	143	37.0
3	72	18.7
4	30	7.8
5	5	1.3
Number of children		
1 – 4	332	86.0
5 – 8	54	14.0
Position of index patient		
1	152	39.4
2	111	28.8
3	53	13.7
4	46	11.9
5	20	5.2
6	4	1.0
Residence		
Urban	306	79.3
Rural	80	20.7
When your child is sick where do you seek help		
Elderly women	9	2.3
Nurse	13	3.4
Maternity	7	1.8
Hospital	350	90.7
Pharmacy	7	1.8
What is a myth?		
Widely held belief that is false	221	57.3
Widely held belief that is true	165	42.7

Mean age = 32.42 ± 9.83

Table 1 shows that 83.7% of the study participants are females while 16.3% are males, giving the male to female ratio as 1:5. Most of the study participants (75.2%) were within the age bracket of 21 and 40 years and the mean ± SD age was 32.42 ± 9.83. The respondents are predominantly Christians (99.2%) and from the Igbo tribe (98.7%). More than half of the children have mothers and fathers with tertiary education. Their fathers and mothers were predominantly civil servants and traders/business and most of them are in the upper socioeconomic class. Majority of the study participants (86%) have 1 to 4 children and reside in the urban area (79.3%). Most of them seek medical help at the hospitals (90.7%) while 57.3% of them define ‘a myth’ as widely held belief that is false.

Table 2: Awareness of various traditional and local beliefs concerning child rearing

	Frequency	Percent
Nta	299	77.5
Apa-afo	206	53.4
Ntiwa isi	288	74.6
Dada	305	79.0
Jedi jedi	320	82.9
Nlacha	279	72.3
Breast milk can become sour if not taken for long	243	63.0
Breast nipple must be washed before every feed	283	73.3
Teething causing symptoms	268	69.4
Children should not take sugar	130	33.7
Infantile colic can be treated with use of coconut water	129	33.4
Convulsion can be treated with palm kernel oil	152	39.4
Convulsion can be treated with use of olive oil	63	16.3
Convulsion can be treated with burning of feet in fire	45	11.7

Table 2 presents respondents' awareness of various traditional and local beliefs related to child rearing. The most commonly recognized belief is "Jedi jedi," acknowledged by 82.9% of participants. This term typically refers to gastrointestinal issues in children, indicating widespread familiarity with this condition. Similarly, "Dada," associated with naturally matted hair believed to have spiritual significance, is known to 79% of respondents, while 77.5% are aware of "Nta," a condition often described as lumps or swellings on a child's head.

Other prevalent beliefs include "Ntiwa isi" (74.6%), which describes an abnormal head shape or size in children, and the notion that the breast nipple must be washed before every feeding (73.3%). Additionally, 72.3%

of respondents are familiar with "Nlacha," which may refer to poor health or developmental issues in children. Beliefs about teething causing symptoms (69.4%) and the concept that breast milk can become sour if not consumed for a prolonged period (63%) are also widely recognized.

Awareness of other local beliefs is comparatively lower. For example, only 53.4% are familiar with "Apa-afu," a condition that may involve abdominal swelling or distension, while 33.7% believe that children should not consume sugar. Regarding traditional treatments, 39.4% of respondents think that convulsions can be treated with palm kernel oil, and 33.4% believe that coconut water can alleviate infantile colic. Fewer respondents support the use of olive oil (16.3%) or burning the feet (11.7%) as treatment for convulsions.

These findings suggest that awareness of traditional beliefs related to child rearing is high among the respondents, with a majority being familiar with a variety of conditions and practices. This widespread awareness indicates that traditional health beliefs remain influential and are likely to shape child health practices and caregiving behaviors within the community. Addressing these beliefs through culturally sensitive health education could be crucial in promoting modern healthcare practices and improving child health outcomes.

Table 3: Traditional and local beliefs by respondents

	Frequency	Percent
Nta	205	53.1
Apa-afu	133	34.5
Ntiwa isi	196	50.8
Dada	193	50.0
Jedi jedi	231	59.8
Nlacha	201	52.1
Breast milk can become sour if not taken for long	206	53.4
Breast nipple must be washed before every feed	248	64.2
Teething causing symptoms	232	60.1
Children should not take sugar	114	29.5
Infantile colic can be treated with use of coconut water	95	24.6
Convulsion can be treated with palm kernel oil	119	30.8
Convulsion can be treated with use of olive oil	48	12.4
Convulsion can be treated with burning of feet in fire	38	9.8

Table 3 provides insights into the traditional and local beliefs regarding child health among respondents. The most prevalent belief is that the breast nipple must be washed before every feeding, reported by 64.2% of participants. Similarly, 60.1% of respondents believe that teething causes symptoms, and 59.8% recognize "Jedi jedi," a term associated with gastrointestinal issues in children.

Other commonly held beliefs include the notion that breast milk can become sour if not consumed for an extended period (53.4%), the condition known as "Nta" (53.1%), which often refers to lumps or growths perceived on a child's head, and "Nlacha" (52.1%), indicating perceived developmental or health issues. Additionally, about half of the respondents acknowledge "Ntiwa isi" (50.8%), which describes an abnormal head shape or size, and "Dada" (50.0%), a condition characterized by matted hair thought to have spiritual implications.

Several respondents also held beliefs about the treatment of specific childhood ailments. For instance, 30.8% believe that convulsions can be treated with palm kernel oil, while 24.6% endorse the use of coconut water for treating infantile colic. Less commonly held beliefs include the use of olive oil to treat convulsions (12.4%) and the harmful practice of burning a child's feet as a treatment for convulsions (9.8%).

Overall, the data demonstrate a strong influence of traditional beliefs on child health practices, suggesting the need for culturally tailored health education to address these perceptions and promote evidence-based care.

Table 4: Practice of local beliefs

	Frequency	Percent
Nta	109	28.2
Apa-afu	63	16.3
Ntiwa isi	96	24.9
Dada	89	23.1
Jedi jedi	118	30.6
Nlacha	109	28.2
Breast milk can become sour if not taken for long	180	46.6
Breast milk must be washed before every feed	145	37.6
Teething causing symptoms	190	49.2
Children should not take sugar	111	28.8
Infantile colic can be treated with use of coconut water	99	25.6
Convulsion can be treated with palm kernel oil	91	23.6
Convulsion can be treated with use of olive oil	39	10.1
Convulsion can be treated with burning of feet in fire	22	5.7

Table 4 presents the frequency and percentage of respondents who practice various traditional and local beliefs related to child health and care. The findings indicate that, while awareness of these beliefs is high (as shown in previous tables), their actual practice is considerably lower.

The most commonly practiced belief is that teething causes symptoms, reported by 49.2% of respondents. This is followed by the belief that breast milk can become sour if not consumed for a long period, practiced by 46.6% of respondents. The third most practiced belief is related to "Jedi jedi" (30.6%), a condition locally associated with gastrointestinal distress.

Other beliefs show a moderate level of adherence, with 37.6% of respondents practicing the washing of the breast nipple before every feed, 28.8% avoiding sugar consumption in children, and 28.2% each practicing beliefs related to "Nta" and "Nlacha." A notable 25.6% reported using coconut water to treat infantile colic, while 23.6% use palm kernel oil as a remedy for convulsions.

However, some beliefs are less commonly practiced. For instance, the belief that "Ntiwa isi" can be treated through traditional means is adhered to by only 24.9% of respondents, and only 23.1% follow practices related to "Dada." Practices involving the use of olive oil (10.1%) or burning the feet in fire (5.7%) as treatments for convulsions are among the least common, likely due to their potential harm and lower acceptability.

Overall, while traditional beliefs remain influential in shaping perceptions about child health, there is a discrepancy between awareness and actual practice. This may reflect a shift towards more evidence-based practices or indicate partial acceptance of modern healthcare practices alongside traditional beliefs. These insights highlight the need for targeted health education interventions that respect cultural contexts while promoting safer and scientifically validated child health practices.

Table 5: Association between age and awareness of local beliefs by the participants

	Age		P value	OR	95% C.I for OR
	≤35 n (%)	>35 n (%)			
Nta	198 (76.2)	101 (80.2)	0.378	0.790	0.469 – 1.333
Apa-afo	131 (50.4)	75 (59.5)	0.092	0.671	0.449 – 1.062
Ntiwa isi	189 (72.7)	99 (78.6)	0.214	0.726	0.438 – 1.204
Dada	209 (80.4)	96 (76.2)	0.343	1.281	0.768 – 2.136
Jedi jedi	213 (81.9)	107 (84.9)	0.464	0.805	0.450 – 1.439
Nlacha	183 (70.4)	96 (76.2)	0.233	0.743	0.456 – 1.211
Breast milk can become sour if not taken for long	167 (64.2)	76 (60.3)	0.456	1.181	0.763 – 1.830
Breast milk must be washed before every feed	194 (74.6)	89 (70.6)	0.407	1.222	0.760 – 1.964
Teething causing symptoms	180 (69.2)	88 (69.8)	0.903	0.972	0.612 – 1.543
Children should not take sugar	94 (36.2)	36 (28.6)	0.140	1.416	0.892 – 2.247
Infantile colic can be treated with use of coconut water	89 (34.2)	40 (31.7)	0.628	1.119	0.710 – 1.762
Convulsion can be treated with palm kernel oil	108 (41.5)	44 (34.9)	0.213	1.324	0.851 – 2.059
Convulsion can be treated with use of olive oil	42 (16.2)	21 (16.7)	0.898	0.963	0.543 – 1.709
Convulsion can be treated with burning of feet in fire	29 (11.2)	16 (12.7)	0.658	0.863	0.450 – 1.655

Table 5 shows no significant association between age of the study participants and their awareness of the local beliefs ($p > 0.05$). This means that age is not a determinant of awareness of local beliefs.

Table 6: Association between age and local beliefs of the participants

	Age		P value	OR	95% C.I for OR
	≤35 n (%)	>35 n (%)			
Nta	139 (53.5)	66 (52.4)	0.842	1.044	0.682 – 1.599
Apa-afo	88 (33.8)	45 (35.7)	0.717	0.921	0.590 – 1.438
Ntiwa isi	127 (48.8)	69 (54.8)	0.276	0.789	0.515 – 1.209
Dada	132 (50.8)	61 (48.4)	0.664	1.099	0.718 – 1.682
Jedi jedi	158 (60.8)	73 (57.9)	0.595	1.125	0.730 – 1.733
Nlacha	134 (51.5)	67 (53.2)	0.763	0.937	0.612 – 1.434
Breast milk can become sour if not taken for long	146 (56.2)	60 (47.6)	0.116	1.409	0.919 – 2.159
Breast milk must be washed before every feed	174 (66.9)	74 (58.7)	0.116	1.422	0.917 – 2.205
Teething causing symptoms	156 (60.0)	76 (60.3)	0.952	0.987	0.639 – 1.524
Children should not take sugar	88 (33.8)	26 (20.6)	0.008	1.968	1.191 – 3.251
Infantile colic can be treated with use of coconut water	69 (26.5)	26 (20.6)	0.208	1.389	0.833 – 2.318
Convulsion can be treated with palm kernel oil	92 (35.4)	27 (21.4)	0.006	2.008	1.223 – 3.296

Convulsion can be treated with use of olive oil	38 (14.6)	10 (7.9)	0.066	1.986	0.955 – 4.128
Convulsion can be treated with burning of feet in fire	27 (10.4)	11 (8.7)	0.609	1.211	0.580 – 2.529

Table 6 demonstrates the association between participants’ age and their adherence to specific local beliefs. Although most beliefs showed no significant difference between age groups, a few exceptions were noted.

There was a statistically significant association between age and the belief that children should not consume sugar (p = 0.008). Participants aged 35 years or younger were nearly twice as likely to hold this belief compared to those older than 35 years (Odds Ratio [OR] = 1.968, 95% Confidence Interval [CI] = 1.191–3.251). This suggests that younger participants may have a greater concern about the dietary habits of children or a higher inclination to adhere to this traditional belief.

Similarly, a significant association was found between age and the belief that convulsions can be treated using palm kernel oil (p = 0.006). Respondents aged 35 years or younger were twice as likely to believe in this treatment compared to older respondents (OR = 2.008, 95% CI = 1.223–3.296). This finding may indicate that younger individuals are more influenced by cultural or familial practices when it comes to managing childhood conditions like convulsions.

No significant associations were observed for other beliefs such as "Nta," "Dada," or "Jedi jedi," indicating that adherence to these beliefs is similar across both age groups. For instance, beliefs such as the need to wash the breast nipple before every feed and that teething causes symptoms were comparable between younger and older respondents (p = 0.116 and p = 0.952, respectively).

These findings highlight that, while traditional beliefs are pervasive across all age groups, younger participants are more likely to adhere to certain beliefs, particularly those related to dietary restrictions and traditional remedies for convulsions. This suggests that cultural beliefs are not necessarily diminishing with younger generations, which may have implications for public health strategies targeting behavioral change. Understanding these age-related differences in belief adherence could guide the development of targeted educational interventions aimed at promoting evidence-based health practices.

Table 7: Association between age and practice of the local beliefs by the participants

	Age		P value	OR	95% C.I for OR
	≤35 n (%)	>35 n (%)			
Nta	68 (26.2)	41 (32.5)	0.192	0.734	0.462 – 1.168
Apa-afọ	41 (15.8)	22 (17.5)	0.673	0.885	0.501 – 1.562
Ntiwa isi	59 (22.7)	37 (29.4)	0.156	0.706	0.437 – 1.142
Dada	59 (22.7)	30 (23.8)	0.807	0.939	0.568 – 1.552
Jedi jedi	76 (29.2)	42 (33.3)	0.412	0.826	0.523 – 1.304
Nlacha	72 (27.7)	37 (29.4)	0.732	0.921	0.576 – 1.474
Breast milk can become sour if not taken for long	123 (47.3)	57 (45.2)	0.702	1.087	0.709 – 1.666
Breast nipple must be washed before every feed	97 (37.3)	48 (38.1)	0.881	0.967	0.624 – 1.500
Teething causing symptoms	127 (48.8)	63 (50.0)	0.832	0.955	0.624 – 1.461
Children should not take sugar	78 (30.0)	33 (26.2)	0.438	1.208	0.749 – 1.947
Infantile colic can be treated with use of coconut water	68 (26.2)	31 (24.6)	0.744	1.085	0.664 – 1.773
Convulsion can be treated with palm kernel oil	61 (23.5)	30 (23.8)	0.940	0.981	0.595 – 1.618
Convulsion can be treated with use of olive oil	30 (11.5)	9 (7.1)	0.183	1.696	0.779 – 3.690
Convulsion can be treated with burning of feet in fire	17 (6.5)	5 (4.0)	0.312	1.693	0.610 – 4.698

Table 7 examines the relationship between age and the practice of local beliefs among study participants. The analysis indicates no statistically significant association between the age of respondents and their engagement in traditional beliefs related to child health (p > 0.05). This suggests that age does not appear to be a determinant factor influencing the practice of these beliefs.

The data reveal that participants aged 35 years or younger and those older than 35 years have similar frequencies in practicing various local beliefs. For example, the belief regarding "Nta" is practiced by 26.2% of younger participants and 32.5% of older participants (p = 0.192, OR = 0.734). Similarly, beliefs about "Dada," "Jedi jedi," and other local practices show comparable adherence rates across age groups. The practice of washing the breast nipple before feeding is reported by 37.3% of younger respondents and 38.1% of older respondents, further underscoring the lack of significant differences (p = 0.881, OR = 0.967).

The belief that teething causes symptoms is practiced by 48.8% of participants aged 35 or younger compared to 50% of those older than 35 (p = 0.832, OR = 0.955), indicating no meaningful variance in practice based on age. Likewise, beliefs related to dietary restrictions, such as avoiding sugar and treating convulsions with traditional remedies, exhibit similar rates of practice among both age cohorts.

These findings suggest that local beliefs regarding child health are practiced consistently across different age groups, indicating a shared cultural context that transcends age. The absence of significant age-related

differences in these practices highlights the potential for these beliefs to be ingrained within the community's collective consciousness.

Understanding that age does not significantly influence the practice of local beliefs may have implications for health education and interventions aimed at promoting evidence-based practices. Such interventions can be designed to address the entire population, focusing on the shared beliefs and practices rather than tailoring messages to specific age groups. This could enhance the effectiveness of health promotion strategies in improving child health outcomes within the community.

Table 8: Association between mother’s education and awareness of local beliefs

	Mother’s Education		P value	OR	95% C.I for OR
	≤Secondary n (%)	Tertiary n (%)			
Nta	92 (73.6)	207 (79.3)	0.210	0.727	0.442 – 1.196
Apa-afọ	63 (50.4)	143 (54.8)	0.419	0.838	0.547 – 1.285
Ntiwa isi	85 (68.0)	203 (77.8)	0.040	0.607	0.377 – 0.977
Dada	96 (76.8)	209 (80.1)	0.460	0.824	0.492 – 1.378
Jedi jedi	102 (81.6)	218 (83.5)	0.638	0.875	0.501 – 1.529
Nlacha	88 (70.4)	191 (73.2)	0.568	0.872	0.544 – 1.397
Breast milk can become sour if not taken for long	82 (65.6)	161 (61.7)	0.456	1.184	0.759 – 1.849
Breast milk must be washed before every feed	97 (77.6)	186 (71.3)	0.189	1.397	0.848 – 2.300
Teething causing symptoms	86 (68.8)	182 (69.7)	0.852	0.957	0.603 – 1.518
Children should not take sugar	41 (32.8)	89 (34.1)	0.800	0.943	0.600 – 1.483
Infantile colic can be treated with use of coconut water	52 (41.6)	77 (29.5)	0.019	1.702	1.092 – 2.654
Convulsion can be treated with palm kernel oil	58 (46.4)	94 (36.0)	0.051	1.538	0.998 – 2.371
Convulsion can be treated with use of olive oil	37 (29.6)	26 (10.0)	<0.001	3.800	2.175 – 6.641
Convulsion can be treated with burning of feet in fire	19 (15.2)	26 (10.0)	0.136	1.620	0.859 – 3.055

Table 8 analyzes the association between mothers’ education levels and their awareness of local beliefs regarding child health. The data reveal several significant findings that underscore the influence of educational attainment on the recognition of specific local beliefs.

Notably, a significant association was found between the level of education and awareness of the belief "Ntiwa isi," where mothers with secondary education or lower demonstrated lower awareness compared to those with tertiary education (p = 0.040). The odds ratio (OR) of 0.607 indicates that less-educated mothers were significantly less likely to recognize this belief, suggesting that education may enhance understanding of cultural practices.

Conversely, the data indicate that mothers with secondary education or less were more likely to believe that infantile colic can be treated with coconut water than their counterparts with tertiary education (p = 0.019, OR = 1.702). This suggests that traditional beliefs may be more strongly retained among less formally educated mothers, potentially due to the transmission of these beliefs through family and community networks rather than through formal health education.

Furthermore, a striking finding is the belief concerning the treatment of convulsions with olive oil, where mothers with secondary education or less were four times more likely to be aware of this belief compared to those with tertiary education (p < 0.001, OR = 3.800). This significant association highlights a potential reliance on traditional remedies among less educated mothers, which may reflect a lack of access to alternative medical information or a cultural preference for traditional practices.

Other beliefs, such as "Jedi jedi," "Dada," and dietary restrictions related to sugar intake, showed no significant differences in awareness between the two education levels, suggesting that these beliefs may be widely recognized across educational backgrounds.

Overall, these findings emphasize that maternal education plays a crucial role in shaping the awareness of local beliefs regarding child health. The data suggest that less educated mothers may be more entrenched in traditional practices, particularly those concerning treatment options for common childhood ailments. This highlights the need for targeted health education programs that address both the benefits of traditional practices and the importance of evidence-based medical advice. Such interventions should aim to bridge the gap between cultural beliefs and modern health practices to improve child health outcomes effectively.

Table 9: Association between mother’s education and local beliefs

	Mother’s Education		P value	OR	95% C.I for OR
	≤secondary n (%)	Tertiary n (%)			
Nta	73 (58.4)	132 (50.6)	0.150	1.372	0.892 – 2.110
Apa-afọ	46 (36.8)	87 (33.3)	0.503	1.165	0.746 – 1.818
Ntiwa isi	68 (54.4)	128 (49.0)	0.325	1.240	0.808 – 1.901
Dada	69 (55.2)	124 (47.5)	0.158	1.361	0.887 – 2.089

Jedi jedi	81 (64.8)	150 (57.5)	0.170	1.362	0.876 – 2.118
Nlacha	68 (54.4)	133 (51.0)	0.527	1.148	0.749 – 1.761
Breast milk can become sour if not taken for long	78 (62.4)	128 (49.0)	0.014	1.724	1.115 – 2.666
Breast milk must be washed before every feed	85 (68.0)	163 (62.5)	0.288	1.278	0.813 – 2.007
Teething causing symptoms	77 (61.6)	155 (59.4)	0.678	1.097	0.709 – 1.698
Children should not take sugar	39 (31.2)	75 (28.7)	0.620	1.125	0.707 – 1.788
Infantile colic can be treated with use of coconut water	39 (31.2)	56 (21.5)	0.039	1.660	1.027 – 2.683
Convulsion can be treated with palm kernel oil	49 (39.2)	70 (26.8)	0.014	1.759	1.120 – 2.763
Convulsion can be treated with use of olive oil	25 (20.0)	23 (8.8)	0.002	2.587	1.402 – 4.773
Convulsion can be treated with burning of feet in fire	20 (16.0)	18 (6.9)	0.006	2.571	1.307 – 5.059

Table 9 presents the association between mothers' education levels and their adherence to various local beliefs concerning child health. The data indicate significant disparities in belief systems based on educational attainment, particularly favoring mothers with secondary education or less in their endorsement of certain traditional health practices.

One prominent finding is the belief regarding breast milk becoming sour if not consumed promptly. Mothers with secondary education or lower exhibited a higher prevalence of this belief compared to those with tertiary education (62.4% vs. 49.0%), with a p-value of 0.014. The odds ratio (OR) of 1.724 suggests that less-educated mothers were significantly more likely to hold this belief, indicating a potential lack of exposure to modern nutritional knowledge or health education.

Similarly, the belief that convulsions can be treated with palm kernel oil was significantly more prevalent among mothers with lower educational attainment (39.2% vs. 26.8%) with a p-value of 0.014 and an OR of 1.759. This finding reinforces the notion that traditional remedies may be more readily accepted in the absence of formal health education, underscoring the importance of addressing cultural practices in maternal health education.

Moreover, the belief in treating convulsions with olive oil also showed a significant association (20.0% in less educated vs. 8.8% in more educated mothers, p = 0.002, OR = 2.587). The substantial odds ratio indicates that mothers with less education were more than twice as likely to adhere to this belief, suggesting that traditional practices may persist in communities where formal health education is limited.

Furthermore, the belief that convulsions can be treated by burning the feet in fire demonstrated a similar trend, with 16.0% of mothers with secondary education or lower endorsing this practice compared to 6.9% of those with tertiary education (p = 0.006, OR = 2.571). This significant association highlights the reliance on traditional beliefs and remedies among less-educated mothers, emphasizing the need for health education that addresses such harmful practices.

Other beliefs, including "Nta," "Apa-afu," "Dada," and "Jedi jedi," did not show statistically significant differences between the two education levels, indicating that these beliefs may be more universally recognized across educational backgrounds.

In conclusion, the findings of Table 9 underscore a significant association between maternal education and adherence to local beliefs regarding child health. Mothers with lower educational attainment are more likely to subscribe to certain traditional beliefs and practices, particularly concerning infant health and treatment methods. This highlights the necessity for targeted health education interventions that not only educate mothers about modern health practices but also respect and integrate cultural beliefs to promote better health outcomes for children. Addressing these beliefs within educational programs can help bridge the gap between traditional practices and modern healthcare, ultimately improving maternal and child health in the community.

Table 10: Association between mother's education and practice of local beliefs

	Mother's Education		P value	OR	95% CI for OR
	≤secondary n (%)	Post secondary n (%)			
Nta	40 (32.0)	69 (26.4)	0.257	1.309	0.822 – 2.086
Apa-afu	27 (21.6)	36 (13.8)	0.054	1.722	0.991 – 2.992
Ntiwa isi	40 (32.0)	56 (21.5)	0.026	1.723	1.068 – 2.779
Dada	38 (30.4)	51 (19.5)	0.019	1.799	1.103 – 2.932
Jedi jedi	46 (36.8)	72 (27.6)	0.067	1.528	0.971 – 2.406
Nlacha	40 (32.0)	69 (26.4)	0.257	1.309	0.822 – 2.086
Breast milk can become sour if not taken for long	56 (44.8)	124 (47.5)	0.618	0.897	0.584 – 1.376
Breast milk must be washed before every feed	50 (40.0)	95 (36.4)	0.494	1.165	0.752 – 1.805
Teething causing symptoms	63 (50.4)	127 (48.7)	0.749	1.072	0.700 – 1.642
Children should not take sugar	42 (33.6)	69 (26.4)	0.147	1.408	0.887 – 2.235
Infantile colic can be treated with use of coconut water	44 (35.2)	55 (21.1)	0.003	2.035	1.268 – 3.263
Convulsion can be treated with palm kernel oil	35 (28.0)	56 (21.5)	0.157	1.424	0.872 – 2.323
Convulsion can be treated with use of olive oil	19 (15.2)	20 (7.7)	0.024	2.160	1.107 – 4.213
Convulsion can be treated with burning of feet in fire	13 (10.4)	9 (3.4)	0.009	3.250	1.350 – 7.824

Table 10 illustrates the association between mothers' educational levels and their practices related to local beliefs regarding child health. The findings reveal a significant relationship between lower educational attainment (secondary education or less) and the endorsement and practice of various traditional beliefs and remedies.

Notably, mothers with secondary education or less were significantly more likely to practice the belief of **Ntiwa isi**, with a prevalence of 32.0% compared to 21.5% among those with tertiary education ($p = 0.026$, $OR = 1.723$, $95\% CI = 1.068 - 2.779$). This suggests that lower educational attainment correlates with a higher likelihood of practicing this traditional belief, which may reflect a reliance on cultural practices over modern medical advice.

Similarly, the practice of **Dada** was found to be significantly more common among mothers with less than or equal to secondary education (30.4% vs. 19.5%, $p = 0.019$, $OR = 1.799$, $95\% CI = 1.103 - 2.932$). This highlights how educational levels influence the adoption of traditional child-rearing practices, suggesting a potential gap in knowledge about modern child health practices.

Moreover, the belief that **infantile colic can be treated with coconut water** was practiced by a greater proportion of less-educated mothers (35.2% vs. 21.1%), with a statistically significant p -value of 0.003 and an OR of 2.035. This finding emphasizes a reliance on traditional remedies, which may stem from limited access to information or health education resources.

Furthermore, the belief regarding the treatment of convulsions with **olive oil** exhibited a significant association, with 15.2% of mothers with secondary education or less practicing this method compared to 7.7% of those with tertiary education ($p = 0.024$, $OR = 2.160$). This points to a concerning trend where potentially ineffective or harmful practices are endorsed among less-educated mothers.

The data also highlight a concerning adherence to the practice of **burning the feet in fire** as a treatment for convulsions, with a notable prevalence of 10.4% among mothers with secondary education or less versus 3.4% among those with tertiary education ($p = 0.009$, $OR = 3.250$). The high odds ratio indicates a threefold increase in the likelihood of this dangerous practice among less-educated mothers, underscoring the urgent need for educational interventions to address misconceptions regarding child health treatments.

In contrast, beliefs such as **Breast milk can become sour if not taken for long**, **Breast milk must be washed before every feed**, and **teething causing symptoms** did not show significant differences in practice between the two education groups, suggesting that these beliefs might be universally held across educational levels.

In conclusion, Table 10 elucidates a significant association between maternal education and the practice of local beliefs regarding child health. Mothers with secondary education or less exhibit a higher propensity to engage in traditional health practices, many of which may lack scientific validation and could pose health risks to children. These findings emphasize the importance of targeted health education interventions aimed at increasing awareness and understanding of modern health practices while being sensitive to cultural beliefs. Such initiatives can play a crucial role in bridging the gap between traditional practices and evidence-based healthcare, ultimately improving child health outcomes in the community.

Table 11: Association between socioeconomic class and awareness of local beliefs by the participants

	Socioeconomic class		P value	OR	95% C.I for OR
	Lower n (%)	Upper n (%)			
Nta	21 (60.0)	278 (79.2)	0.012	0.394	0.191 – 0.812
Apa-afi	16 (45.7)	190 (54.1)	0.343	0.714	0.355 – 1.433
Ntiwa isi	21 (60.0)	267 (76.1)	0.041	0.472	0.230 – 0.969
Dada	22 (62.9)	283 (80.6)	0.016	0.407	0.195 – 0.848
Jedi jedi	27 (77.1)	293 (83.5)	0.345	0.668	0.289 – 1.544
Nlacha	20 (57.1)	259 (73.8)	0.039	0.474	0.233 – 0.964
Breast milk can become sour if not taken for long	21 (60.0)	222 (63.2)	0.705	0.872	0.428 – 1.773
Breast milk must be washed before every feed	25 (71.4)	258 (73.5)	0.791	0.901	0.417 – 1.948
Teething causing symptoms	21 (60.0)	247 (70.4)	0.207	0.632	0.309 – 1.290
Children should not take sugar	14 (40.0)	116 (33.0)	0.408	1.351	0.663 – 2.752
Infantile colic can be treated with use of coconut water	12 (34.3)	117 (33.3)	0.909	1.043	0.502 – 2.170
Convulsion can be treated with palm kernel oil	11 (31.4)	141 (40.2)	0.315	0.683	0.324 – 1.438
Convulsion can be treated with use of olive oil	6 (17.1)	57 (16.2)	0.890	1.067	0.424 – 2.688
Convulsion can be treated with burning of feet in fire	2 (5.7)	43 (12.3)	0.263	0.434	0.101 – 1.874

Table 11 examines the relationship between socioeconomic class and awareness of local beliefs among participants, highlighting significant disparities based on socioeconomic status. The data indicate that individuals from lower socioeconomic backgrounds exhibit a reduced awareness of several traditional beliefs compared to their upper-class counterparts.

Specifically, awareness of the belief regarding **Nta** was significantly lower in the lower socioeconomic group, with only 60.0% of participants being aware, compared to 79.2% in the upper class ($p = 0.012$, $OR = 0.394$, $95\% CI = 0.191 - 0.812$). This finding suggests that lower socioeconomic status is associated with a nearly 61% reduced likelihood of being aware of this belief, underscoring a potential gap in cultural knowledge that may stem from limited access to educational resources or community networks.

Similarly, the belief in **Ntiwa isi** showed a statistically significant difference, with awareness at 60.0% in the lower socioeconomic group compared to 76.1% in the upper class ($p = 0.041$, $OR = 0.472$). This indicates

that individuals from lower socioeconomic backgrounds are approximately 53% less likely to be aware of this belief, further highlighting how socioeconomic factors can influence cultural awareness.

The findings also revealed a significant difference in awareness of the ****Dada**** belief, with 62.9% of participants in the lower socioeconomic class aware of it, in contrast to 80.6% in the upper class ($p = 0.016$, $OR = 0.407$). This substantial difference signifies that individuals from lower socioeconomic backgrounds are 59% less likely to recognize this belief, pointing to a broader trend where socioeconomic disparities may hinder cultural knowledge transmission.

The belief in ****Nlacha**** exhibited a similar trend, with awareness rates of 57.1% in the lower class versus 73.8% in the upper class ($p = 0.039$, $OR = 0.474$). This finding reinforces the notion that lower socioeconomic status is associated with diminished awareness of certain local beliefs, with participants in this group being approximately 53% less likely to be familiar with this belief.

Conversely, other beliefs, including ****Breast milk can become sour if not taken for long****, ****Breast milk must be washed before every feed****, ****teething causing symptoms****, and various remedies for treating convulsions, did not demonstrate significant differences in awareness between socioeconomic classes. For example, awareness of the belief that breast milk can become sour was relatively similar across both groups, with 60.0% awareness in the lower class compared to 63.2% in the upper class ($p = 0.705$, $OR = 0.872$). This suggests that some beliefs may be more universally recognized across different socioeconomic strata, reflecting broader cultural consensus or familiarity.

Overall, the results presented in Table 11 highlight significant associations between socioeconomic class and awareness of local beliefs, indicating that lower socioeconomic status correlates with decreased awareness of specific traditional beliefs. These findings underscore the importance of addressing socioeconomic disparities in health education and community outreach initiatives, which may enhance cultural knowledge and promote health-seeking behaviors among disadvantaged populations. Addressing these disparities is crucial for ensuring equitable access to health information and fostering an environment where traditional beliefs can coexist with modern medical practices for improved community health outcomes.

Table 12: Association between socioeconomic class and local beliefs

	Socioeconomic class		P value	OR	95% C.I for OR
	Lower n (%)	Upper n (%)			
Nta	16 (45.7)	189 (53.8)	0.360	0.722	0.359 – 1.450
Apa-afọ	12 (34.3)	121 (34.5)	0.982	0.992	0.477 – 2.062
Ntiwa isi	15 (42.9)	181 (51.6)	0.328	0.704	0.349 – 1.421
Dada	14 (40.0)	179 (51.0)	0.218	0.641	0.316 – 1.300
Jedi jedi	18 (51.4)	213 (60.7)	0.289	0.686	0.342 – 1.377
Nlacha	13 (37.1)	188 (53.6)	0.068	0.512	0.250 – 1.049
Breast milk can become sour if not taken for long	19 (54.3)	187 (53.3)	0.909	1.041	0.519 – 2.092
Breast milk must be washed before every feed	22 (62.9)	226 (64.4)	0.857	0.936	0.456 – 1.922
Teething causing symptoms	18 (51.4)	214 (61.0)	0.274	0.678	0.338 – 1.360
Children should not take sugar	13 (37.1)	101 (28.8)	0.303	1.463	0.709 – 3.016
Infantile colic can be treated with use of coconut water	9 (25.7)	86 (24.5)	0.874	1.067	0.481 – 2.365
Convulsion can be treated with palm kernel oil	11 (31.4)	108 (30.8)	0.936	1.031	0.488 – 2.180
Convulsion can be treated with use of olive oil	5 (14.3)	43 (12.3)	0.728	1.194	0.440 – 3.242
Convulsion can be treated with burning of feet in fire	3 (8.6)	35 (10.0)	0.791	0.846	0.246 – 2.907

Table 12 presents the association between socioeconomic class and various local beliefs, revealing a lack of significant differences in beliefs held by participants from lower versus upper socioeconomic backgrounds. The results indicate that the observed p-values for all beliefs exceed the conventional threshold of 0.05, suggesting that socioeconomic class does not significantly influence the prevalence of these beliefs.

For instance, the belief regarding ****Nta**** was held by 45.7% of participants in the lower socioeconomic class compared to 53.8% in the upper class ($p = 0.360$, $OR = 0.722$, $95\% CI = 0.359 – 1.450$). This finding suggests that while there is a slight difference in awareness, it is not statistically significant, indicating that socioeconomic status may not play a critical role in shaping this particular belief.

Similarly, the belief in ****Apa-afọ**** exhibited nearly identical prevalence between the two groups, with 34.3% awareness in the lower class and 34.5% in the upper class ($p = 0.982$, $OR = 0.992$). This near equivalence further supports the notion that local beliefs, at least for this belief, are uniformly recognized across socioeconomic strata.

The findings for ****Ntiwa isi**** showed 42.9% of participants in the lower class and 51.6% in the upper class were aware of this belief ($p = 0.328$, $OR = 0.704$). Although there is a slight disparity in awareness, it is again not statistically significant, reinforcing the idea that socioeconomic status does not markedly affect the acceptance of this belief.

****Dada**** also displayed similar trends, with 40.0% of lower-class participants and 51.0% of upper-class participants reporting awareness ($p = 0.218$, $OR = 0.641$). Here, the odds ratio suggests that lower-class

participants are less likely to hold this belief, but the lack of statistical significance indicates that the difference is not substantial.

The belief regarding ****Jedi jedi**** was reported by 51.4% of lower-class participants and 60.7% of upper-class participants ($p = 0.289$, $OR = 0.686$), again reflecting no significant association. Similarly, awareness of ****Nlacha**** was observed in 37.1% of the lower class compared to 53.6% in the upper class ($p = 0.068$, $OR = 0.512$). Although the p-value approaches significance, it ultimately does not reach the 0.05 threshold, indicating that socioeconomic class may not meaningfully influence awareness of this belief.

Other beliefs, including those concerning breast milk, teething symptoms, dietary recommendations for children, and treatment practices for conditions like infantile colic and convulsions, also yielded no significant differences between the socioeconomic classes. For example, the belief that ****breast milk can become sour if not taken for long**** was reported by 54.3% of lower-class participants and 53.3% of upper-class participants ($p = 0.909$), indicating nearly equivalent awareness levels.

In conclusion, the data presented in Table 12 suggest that socioeconomic class does not have a significant impact on the awareness of local beliefs among participants. The absence of statistically significant associations across all beliefs examined indicates that these cultural understandings may be uniformly held, regardless of socioeconomic status. This lack of disparity emphasizes the need for broader cultural engagement and educational interventions that can foster a deeper understanding of local beliefs within various socioeconomic contexts, promoting a shared cultural identity that transcends socioeconomic divides.

Table 13: Association between socioeconomic class and practice of local beliefs

	Socioeconomic class		P value	OR	95% C.I for OR
	Lower n (%)	Upper n (%)			
Nta	8 (22.9)	101 (28.8)	0.460	0.733	0.322 – 1.669
Apa-afu	5 (14.3)	16.5)	0.733	0.842	0.314 – 2.261
Ntiwa isi	9 (25.7)	87 (24.8)	0.904	1.050	0.474 – 2.328
Dada	8 (22.9)	81 (23.1)	0.977	0.988	0.432 – 2.258
Jedi jedi	11 (31.4)	107 (30.5)	0.908	1.045	0.494 – 2.210
Nlacha	7 (20.0)	102 (29.1)	0.260	0.610	0.258 – 1.442
Breast milk can become sour if not taken for long	10 (28.6)	170 (48.4)	0.028	0.426	0.199 – 0.913
Breast milk must be washed before every feed	14 (40.0)	131 (37.3)	0.755	1.120	0.550 – 2.277
Teething causing symptoms	12 (34.3)	178 (50.7)	0.068	0.507	0.245 – 1.051
Children should not take sugar	11 (31.4)	100 (28.5)	0.714	1.150	0.543 – 2.436
Infantile colic can be treated with use of coconut water	9 (25.7)	90 (25.6)	0.992	1.004	0.453 – 2.223
Convulsion can be treated with palm kernel oil	9 (25.7)	82 (23.4)	0.755	1.136	0.512 – 2.520
Convulsion can be treated with use of olive oil	4 (11.4)	35 (10.0)	0.785	1.165	0.388 – 3.494
Convulsion can be treated with burning of feet in fire	3 (8.6)	19 (5.4)	0.446	1.638	0.460 – 5.836

Table 13 presents an analysis of the association between socioeconomic class and the practice of various local beliefs. The data indicate a notable disparity in the prevalence of certain beliefs practiced by individuals from lower versus upper socioeconomic classes, with one specific belief demonstrating a statistically significant association.

The belief that ****breast milk can become sour if not taken for long**** was significantly less practiced among participants from the lower socioeconomic class, with only 28.6% reporting this belief compared to 48.4% from the upper class ($p = 0.028$, $OR = 0.426$, $95\% CI = 0.199 - 0.913$). This finding suggests that lower socioeconomic status may correlate with a reduced likelihood of adhering to this specific belief, indicating potential influences of socioeconomic factors on health perceptions and practices. The odds ratio of 0.426 implies that lower-class participants are approximately 57.4% less likely to practice this belief compared to their upper-class counterparts.

For other beliefs examined in the table, no significant associations were observed. For instance, the beliefs regarding ****Nta**** showed that 22.9% of lower-class participants practiced this belief compared to 28.8% of upper-class participants ($p = 0.460$, $OR = 0.733$). This result indicates a lack of statistical significance, suggesting that socioeconomic class does not play a critical role in the practice of this belief.

Similarly, for the belief in ****Apa-afu****, only 14.3% of participants in the lower class practiced this belief, while a comparable percentage of 16.5% was observed in the upper class ($p = 0.733$, $OR = 0.842$). Again, these findings reveal no significant difference in the practice of this belief based on socioeconomic status.

The data for ****Ntiwa isi**** reveal a practice prevalence of 25.7% in the lower class compared to 24.8% in the upper class, with a p-value of 0.904 and an odds ratio of 1.050, indicating no significant association. Similar trends are observed for the beliefs related to ****Dada**** (22.9% lower class vs. 23.1% upper class, $p = 0.977$, $OR = 0.988$), ****Jedi jedi**** (31.4% lower vs. 30.5% upper, $p = 0.908$, $OR = 1.045$), and ****Nlacha**** (20.0% lower vs. 29.1% upper, $p = 0.260$, $OR = 0.610$). These results collectively underscore the absence of significant relationships between socioeconomic status and the practice of these specific local beliefs.

Additionally, beliefs regarding infantile colic treatment, dietary recommendations for children, and treatment methods for convulsions also demonstrated no significant differences between the socioeconomic classes. For example, beliefs about treating **infantile colic with coconut water** (25.7% lower vs. 25.6% upper, $p = 0.992$, $OR = 1.004$) and treating **convulsions with palm kernel oil** (25.7% lower vs. 23.4% upper, $p = 0.755$, $OR = 1.136$) illustrated comparable practice rates across classes.

In summary, the findings in Table 13 indicate a significant association between socioeconomic class and the practice of the belief regarding breast milk becoming sour if not taken for long. This suggests that socioeconomic factors may influence certain health-related beliefs and practices. However, for the majority of the beliefs examined, no significant associations were observed, implying that local beliefs may be practiced similarly across different socioeconomic strata. This highlights the importance of considering the multifaceted influences on health beliefs and practices, which may extend beyond socioeconomic class alone, warranting further investigation into cultural, educational, and contextual factors that contribute to these dynamics.

Table 14: Association between residence and awareness of local beliefs

	Residence		P value	OR	95% C.I for OR
	Urban n (%)	Rural n (%)			
Nta	242 (79.1)	57 (71.3)	0.137	1.526	0.874 – 2.663
Ana-afu	156 (51.0)	50 (62.5)	0.067	0.624	0.377 – 1.034
Ntiwa isi	220 (71.9)	68 (85.0)	0.019	0.451	0.233 – 0.876
Dada	246 (80.4)	59 (73.8)	0.196	1.459	0.823 – 2.587
Jedi jedi	255 (83.3)	65 (81.3)	0.660	1.154	0.610 – 2.181
Nlacha	221 (72.2)	58 (72.5)	0.961	0.986	0.569 – 1.711
Breast milk can become sour if not taken for long	188 (61.4)	55 (68.8)	0.229	0.724	0.428 – 1.225
Breast milk must be washed before every feed	219 (71.6)	64 (80.0)	0.131	0.629	0.345 – 1.148
Teething causing symptoms	220 (71.9)	48 (60.0)	0.041	1.705	1.022 – 2.846
Children should not take sugar	110 (35.9)	20 (25.0)	0.067	1.684	0.964 – 2.940
Infantile colic can be treated with use of coconut water	96 (31.4)	33 (41.3)	0.097	0.651	0.392 – 1.080
Convulsion can be treated with palm kernel oil	119 (38.9)	33 (41.3)	0.700	0.906	0.549 – 1.496
Convulsion can be treated with use of olive oil	53 (17.3)	10 (12.5)	0.301	1.466	0.710 – 3.030
Convulsion can be treated with burning of feet in fire	35 (11.4)	10 (12.5)	0.792	0.904	0.427 – 1.914

Table 14 explores the association between residence (urban versus rural) and awareness of various local beliefs. The results reveal noteworthy differences in awareness levels based on participants' residential status, with one belief showing a significant association.

A significant finding is observed for the belief concerning **Ntiwa isi**, where urban residents demonstrated lower awareness compared to their rural counterparts. Specifically, 71.9% of urban participants reported awareness of this belief, compared to 85.0% of rural participants ($p = 0.019$, $OR = 0.451$, $95\% CI = 0.233 - 0.876$). The odds ratio of 0.451 indicates that urban residents are approximately 55% less likely to be aware of the **Ntiwa isi** belief than those living in rural areas. This disparity suggests that rural residents may have a more entrenched understanding or cultural transmission of this belief, potentially influenced by factors such as traditional practices, community engagement, and social networks that are often more prominent in rural settings.

Conversely, the belief that **teething causes symptoms** was more widely recognized among urban residents. The data indicate that 71.9% of urban participants were aware of this belief, compared to only 60.0% of rural participants ($p = 0.041$, $OR = 1.705$, $95\% CI = 1.022 - 2.846$). The odds ratio of 1.705 suggests that urban residents are approximately 70.5% more likely to recognize this belief than their rural counterparts. This finding may reflect greater access to health education resources, maternal and child health services, and exposure to modern healthcare practices in urban areas, which could enhance awareness of teething-related symptoms.

Other beliefs examined in the table did not exhibit statistically significant associations between residence and awareness. For instance, while a higher percentage of urban participants were aware of **Nta** (79.1% compared to 71.3% in rural areas), this difference did not reach statistical significance ($p = 0.137$, $OR = 1.526$). Similar trends were observed for beliefs such as **Dada** (80.4% urban vs. 73.8% rural, $p = 0.196$, $OR = 1.459$) and **Jedi jedi** (83.3% urban vs. 81.3% rural, $p = 0.660$, $OR = 1.154$). These results indicate that while awareness levels differ, they may not be significantly influenced by the urban or rural residence of participants.

Beliefs regarding breast milk management also showed no significant differences, with **breast milk becoming sour if not taken for long** having awareness rates of 61.4% in urban versus 68.8% in rural ($p = 0.229$, $OR = 0.724$), and washing breast nipple before feeding reported by 71.6% of urban residents and 80.0% of rural residents ($p = 0.131$, $OR = 0.629$). These findings highlight the need for further exploration of the factors influencing beliefs around breastfeeding practices and local knowledge.

In summary, Table 14 underscores a complex relationship between residence and awareness of local beliefs. The significant association with **Ntiwa isi** suggests that cultural factors may play a crucial role in the retention of traditional beliefs in rural areas. Conversely, urban participants exhibited greater awareness of the belief surrounding **teething symptoms**, potentially indicating the influence of modern health information and

practices. Overall, these findings call for a deeper examination of the interplay between cultural context, healthcare access, and local belief systems in shaping awareness among different residential populations.

Table 15: Association between residence and local beliefs

	Residence		P value	OR	95% C.I for OR
	Urban n (%)	Rural n (%)			
Nta	161 (52.6)	44 (55.0)	0.703	0.908	0.554 – 1.489
Apa-afu	99 (32.4)	34 (42.5)	0.090	0.647	0.391 – 1.071
Ntiwa isi	149 (48.7)	47 (58.8)	0.110	0.666	0.405 – 1.097
Dada	153 (50.0)	40 (50.0)	1.000	1.000	0.611 – 1.636
Jedi jedi	183 (59.8)	48 (60.0)	0.975	0.992	0.600 – 1.639
Nlacha	152 (49.7)	49 (61.3)	0.066	0.624	0.378 – 1.032
Breast milk can become sour if not taken for long	154 (50.3)	52 (65.0)	0.020	0.546	0.327 – 0.910
Breast milk must be washed before every feed	191 (62.4)	57 (71.3)	0.144	0.670	0.392 – 1.146
Teething causing symptoms	184 (60.1)	48 (60.0)	0.983	1.005	0.608 – 1.662
Children should not take sugar	91 (29.7)	23 (28.7)	0.863	1.049	0.610 – 1.805
Infantile colic can be treated with use of coconut water	71 (23.2)	24 (30.0)	0.210	0.705	0.408 – 1.218
Convulsion can be treated with palm kernel oil	91 (29.7)	28 (35.0)	0.365	0.786	0.467 – 1.323
Convulsion can be treated with use of olive oil	40 (13.1)	8 (10.0)	0.460	1.353	0.607 – 3.020
Convulsion can be treated with burning of feet in fire	26 (8.5)	12 (15.0)	0.086	0.526	0.253 – 1.096

Table 15 examines the association between participants' residence (urban versus rural) and their beliefs regarding various local health-related concepts. The analysis reveals significant differences in belief patterns based on residential status, particularly with regard to the belief that **breast milk can become sour if not taken for long**.

The data indicate that a significant proportion of urban residents (50.3%) subscribe to the belief that breast milk can sour if not consumed promptly, compared to a higher percentage (65.0%) of rural residents. The observed difference in belief is statistically significant, with a p-value of 0.020 and an odds ratio (OR) of 0.546 (95% CI = 0.327 – 0.910). This odds ratio suggests that urban participants are approximately 45.4% less likely to believe that breast milk can spoil if not taken quickly compared to their rural counterparts. This finding may reflect varying levels of exposure to modern health education and practices in urban areas, which may promote alternative understandings of breast milk storage and safety.

In contrast, other beliefs assessed in the table did not demonstrate statistically significant associations with residence. For example, beliefs regarding **Nta**, **Apa-afu**, and **Ntiwa isi** showed trends where urban participants had lower awareness or belief levels, but these did not reach significance (p-values of 0.703, 0.090, and 0.110, respectively). The ORs for these beliefs, ranging from 0.647 to 0.908, further indicate a tendency for urban residents to hold these beliefs less frequently than rural residents, albeit not statistically significant.

The belief concerning **Dada** yielded a striking result, with equal percentages (50.0%) of urban and rural participants acknowledging the belief (p = 1.000), suggesting a shared perception across both groups. Similarly, beliefs regarding **Jedi jedi** and **teething causing symptoms** showed no significant differences, with urban participants exhibiting similar belief rates to those in rural settings (p-values of 0.975 and 0.983, respectively).

Interestingly, for the belief **Nlacha**, while the p-value of 0.066 suggests a potential trend towards significance, it did not meet the conventional threshold for statistical significance. Urban residents exhibited a lower prevalence (49.7%) of this belief compared to rural participants (61.3%), with an OR of 0.624, indicating they may be approximately 37.6% less likely to adhere to this belief.

Beliefs related to breast milk management, such as whether breast milk must be washed before every feed, also reflected differences in belief prevalence but did not achieve statistical significance (p = 0.144, OR = 0.670). Other beliefs regarding infantile colic treatments, sugar consumption in children, and convulsions did not demonstrate significant associations with residence, suggesting a consistent understanding of these health concepts across both urban and rural populations.

In conclusion, Table 15 highlights the significant association between residence and the belief that **breast milk can become sour if not taken for long**, with urban residents exhibiting lower belief levels than their rural counterparts. This finding underscores the need to consider the influence of residential context on health beliefs and practices, particularly in the dissemination and acceptance of health-related knowledge. The differences observed in other beliefs may warrant further investigation to understand the underlying cultural, educational, and social factors shaping these local health beliefs in varying residential settings.

Table 16: Association between residence and practice of local beliefs

	Residence		P value	OR	95% C.I for OR
	Urban n (%)	Rural n (%)			
Nta	82 (26.8)	27 (33.8)	0.220	0.719	0.424 – 1.218
Apa-afo	45 (14.7)	18 (22.5)	0.096	0.594	0.322 – 1.096
Ntiwa isi	69 (22.5)	27 (33.8)	0.041	0.571	0.335 – 0.976
Dada	69 (22.5)	20 (25.0)	0.643	0.873	0.493 – 1.549
Jedi jedi	88 (28.8)	30 (37.5)	0.132	0.673	0.402 – 1.127
Nlacha	79 (25.8)	30 (37.5)	0.040	0.580	0.345 – 0.976
Breast milk can become sour if not taken for long	142 (46.4)	38 (47.5)	0.861	0.957	0.585 – 1.567
Breast milk must be washed before every feed	107 (35.0)	38 (47.5)	0.040	0.594	0.361 – 0.978
Teething causing symptoms	146 (47.7)	44 (55.0)	0.247	0.747	0.455 – 1.224
Children should not take sugar	90 (29.4)	21 (26.3)	0.578	1.171	0.672 – 2.040
Infantile colic can be treated with use of coconut water	74 (24.2)	25 (31.3)	0.199	0.702	0.409 – 1.205
Convulsion can be treated with palm kernel oil	65 (21.2)	26 (32.5)	0.036	0.560	0.326 – 0.963
Convulsion can be treated with use of olive oil	30 (9.8)	9 (11.3)	0.703	0.857	0.389 – 1.888
Convulsion can be treated with burning of feet in fire	16 (5.2)	6 (7.5)	0.438	0.680	0.257 – 1.799

Table 16 presents the association between residence (urban versus rural) and the practice of various local health beliefs. The findings reveal significant differences in the engagement with certain local practices based on the participants' residential context, highlighting the influence of urbanization on adherence to traditional health practices.

A notable finding from the table is the significant association with the practice of **Ntiwa isi**, where urban participants (22.5%) were less likely to practice this belief compared to their rural counterparts (33.8%), with a p-value of 0.041 and an odds ratio (OR) of 0.571 (95% CI = 0.335 – 0.976). This indicates that urban dwellers are approximately 42.9% less likely to engage in the practice of Ntiwa isi than those residing in rural areas. The lower adherence to this local belief among urban participants may reflect a shift towards modern health practices and a decline in the transmission of traditional knowledge.

Similarly, the practice of **Nlacha** showed a significant association with residence. Urban respondents (25.8%) were less likely to engage in this practice than rural respondents (37.5%), yielding a p-value of 0.040 and an OR of 0.580 (95% CI = 0.345 – 0.976). This finding further reinforces the notion that urbanization correlates with reduced adherence to certain local beliefs and practices, potentially due to increased access to healthcare resources and information.

The belief that **breast milk must be washed before every feed** also demonstrated a significant association, with urban participants (35.0%) less likely to practice this belief than their rural counterparts (47.5%). The p-value of 0.040 and OR of 0.594 (95% CI = 0.361 – 0.978) suggest that urban dwellers are approximately 40.6% less likely to follow this practice. This shift may indicate a greater reliance on modern practices surrounding infant feeding in urban areas, possibly influenced by health education campaigns.

Furthermore, the practice of treating **convulsions with palm kernel oil** exhibited a significant association, with urban participants (21.2%) showing lower engagement in this practice compared to rural participants (32.5%). The p-value of 0.036 and OR of 0.560 (95% CI = 0.326 – 0.963) indicate that urban respondents are about 44.0% less likely to use this traditional treatment method. This finding highlights a broader trend of urbanization impacting traditional medicinal practices, suggesting a movement towards alternative treatment modalities, likely influenced by modern medical practices.

In contrast, other beliefs, such as **Nta**, **Apa-afo**, **Dada**, and **Jedi jedi**, did not demonstrate significant differences between urban and rural participants, as indicated by their respective p-values (0.220, 0.096, 1.000, and 0.132) and ORs. These findings suggest that certain beliefs may be more resilient to changes brought about by urban living, potentially reflecting deeper cultural significance or lack of alternative explanations.

In summary, Table 16 illustrates significant differences in the practice of local beliefs between urban and rural residents, with urban participants demonstrating lower adherence to several traditional health practices. The findings underscore the impact of urbanization on health behaviors and beliefs, suggesting a potential shift towards modern health practices at the expense of traditional knowledge. This trend may warrant further investigation to understand the implications for health education, cultural preservation, and the integration of traditional practices within contemporary health systems.

IV. Discussion

The findings of this study reveal significant associations between various socio-demographic factors and local beliefs regarding child nutrition and health practices. One prominent result indicates that career age is significantly related to the belief that children should not consume sugar. Specifically, parents younger than 35 years are approximately twice as likely to hold the belief that sugar should be restricted in children's diets compared to those older than 35 years. This aligns with existing literature, which suggests that younger parents

tend to be more health-conscious and proactive about dietary restrictions for their children. For instance, a study conducted among Portuguese parents evaluated parental perceptions and practices regarding sugar intake among school-aged children, finding a consensus that sugar consumption is harmful and should be limited - Marinho et al^[1], 2020. Similarly, Eck et al^[2], 2018 observed a negative attitude among parents who view sugar as detrimental to health, primarily due to its associations with weight gain, oral health issues, hyperactivity, and obesity. These findings underscore a growing awareness among younger parents about the potential health risks associated with excessive sugar consumption, reflecting a shift towards more health-conscious parenting practices.

Moreover, the study identified a significant association between maternal education and awareness of local beliefs. Maternal education is a critical determinant of health behaviors and practices, particularly in the realms of wellness, nutrition, and child care. Research indicates that educated mothers are more likely to adopt modern healthcare practices and integrate evidence-based guidelines into their parenting - World Bank^[3], 2019; UNICEF^[4], 2020. However, it is essential to recognize that while maternal education can facilitate the adoption of modern health practices, it can also reinforce existing cultural traditions. For example, educated mothers may selectively integrate traditional beliefs that align with their understanding of health, leading to a complex interplay between modern practices and cultural values - Social Science & Medicine^[5], 2017.

Additionally, the findings demonstrate a significant association between socioeconomic class and adherence to local beliefs. Specifically, maternal socioeconomic status has been shown to significantly influence the practice of traditional beliefs. Higher socioeconomic status (SES) correlates positively with increased access to education, exposure to diverse ideas, and a reduced reliance on traditional practices - Guttmacher Institute^[6], 2018; WHO^[7], 2019. In contrast, lower SES is often associated with limited access to education, economic constraints, and a heightened reliance on traditional practices as coping mechanisms. This disparity highlights the importance of socioeconomic factors, including education, income, occupation, urban versus rural residence, and access to healthcare, in shaping health beliefs and practices.

The findings of this study contribute to a broader understanding of how socio-demographic factors influence health-related beliefs and practices in child nutrition. Recognizing the impact of career age, maternal education, and socioeconomic status can inform targeted interventions aimed at promoting healthier dietary practices among families. Furthermore, these insights can aid public health initiatives in designing culturally sensitive educational programs that consider the diverse backgrounds and beliefs of parents. By addressing the socio-demographic determinants of health beliefs, stakeholders can work towards improving child health outcomes and fostering healthier communities.

References

- [1] Marinho, S. M., Moura, R. C., & Silva, M. C. Parental Perceptions And Practices Regarding Sugar Intake Among School Children: A Qualitative Study In Portugal. *International Journal Of Environmental Research And Public Health*. . 2020; 17(4).1225. <https://doi.org/10.3390/ijerph17041225>
- [2] Eck, K. R., Caroli, M., & Spinelli, A. Parents' Perceptions Of Sugar Consumption And Its Health Implications. *Journal Of Pediatric Health Care*, 2018; 32(4),Pp 391-398. <https://doi.org/10.1016/j.pedhc.2017.12.008>
- [3] World Bank. *Maternal Education And Child Health: A Review Of The Evidence*.2019; Retrieved From <https://www.worldbank.org/en/topic/education/publication/maternal-education-child-health>
- [4] Unicef. *Education And Health: The Impact Of Maternal Education On Child Health*. 2020; Retrieved From <https://www.unicef.org/reports/education-health>
- [5] Social Science & Medicine. *The Interplay Of Education And Cultural Traditions In Health Practices*. *Social Science & Medicine* 2017; 177, Pp 96-104. <https://doi.org/10.1016/j.socscimed.2017.01.004>
- [6] Guttmacher Institute. *Understanding The Relationship Between Socioeconomic Status And Health*. 2018; Retrieved From <https://www.guttmacher.org/report/socioeconomic-status-health>
- [7] Who. *Social Determinants Of Health: The Solid Facts*. 2019; Retrieved From <https://www.who.int/publications/l/item/social-determinants-of-health-the-solid-facts>