KNOWLEDGE, ATTITUDE AND MANAGEMENT PRACTICES OF MOTHERS OF UNDER-TWO DURING TEETHING IN IBADAN NORTH LOCAL GOVERNMENT AREA OYO STATE

BY

Okedele, Timilehin Elizabeth

B.Sc. Nursing (IGBINEDION)

MATRIC NO: 209300

A Project in the Department of Health Promotion and Education Submitted to Faculty of Public Health

In Partial Fulfillment of the Requirements for the degree of

MASTERS OF PUBLIC HEALTH

(HEALTH PROMOTION AND EDUCATION)

Of the

UNIVERSITY OF IBADAN

March, 2021

CERTIFICATION

I hereby certify that this study was carried out by OKEDELE, Timilehin Elizabeth under my supervision in the Department of Health Promotion and Education, Faculty of Public Health, College of Medicine, University of Ibadan, Nigeria

_____

SUPERVISOR

Dr Titiloye M.A.

B.Sc., (UNAAB), MPH, PhD (Ib.), Post Doc (UKZN)

Senior Lecturer

Department of Health Promotion and Education,

Faculty of Public Health,

College of Medicine, University of Ibadan,

Nigeria.

DEDICATION

This research project is dedicated to the Almighty God, the Alpha and Omega who made this possible. To my amazing husband for his love, encouragement and sacrifices I celebrate you. I sincerely appreciate my Wonderful and Precious Surprises (Ezra and Eden) for their cooperation all through. To my super dad and mum, thank you so much for the full support.

ACKNOWLEDGEMENTS

I hereby acknowledge God as my sufficiency during this program. My appreciation goes to my supervisor Dr. Titiloye Musibau for his selfless support; guide and time in making this project a successful one. I want to say a big thank you sir for your mentorship and availability all through this project. My appreciation goes to the Acting Head of Department, Dr. O.E. Oyewole and all my lecturers who made this journey worthwhile.

I would like to express my deepest appreciation to the Department of Health Promotion and Education for providing me with the opportunity to partake in this groundbreaking research; the Acting Head of Department of Health Promotion and Education Dr O.E. Oyewole and all members of staff of the Department; Professor O. Oladepo, Professor A.J. Ajuwon, Professor Oyedunni S. Arulogun, Dr F.O. Oshiname, Dr O.I Dipeolu, Dr Yetunde O. John-Akinola, Dr Mojisola M. Oluwasanu, Mrs Adeyimika T. Desmennu and Mr John Imaledo for their intellectual inputs. I am indebted to them for their support and efforts. All non-academic employees are equally appreciated.

I also want to acknowledge my husband for the immense encouragement, support and funding of this program. I appreciate my children Ezra and Eden for their perseverance. A special thanks to my parents for their support and care for the kids all through the program. I appreciate my siblings and in-laws for their support and prayers.

ABSTRACT

Teething medically known as Odontiasis is the eruption of primary teeth in infancy. The assumption of a link between common symptoms such as febrile illness, diarrhea and eruption of primary teeth has been established over many centuries. One of the greatest challenges confronting the government in Nigeria today is the need to reduce infant and child morbidity and mortality in order to achieve the sustainable development goal 2030. Hence, this study was designed to determine the knowledge, attitude and management practices of mothers during teething in Ibadan North Local Government Area, Oyo state, Nigeria.

The study was a community-based descriptive cross-sectional research. With 225 mothers of under-two children in IBNLGA, Oyo State been selected using multistage sampling technique. A pre-tested Interviewer administered questionnaire consisting of respondent's Socio-demographic characteristics, knowledge and attitude towards teething, cultural beliefs and management practices of mothers during the teething was used. Four Focus Group discussions sessions was used to complement quantitative instrument. Quantitative data was analyzed using descriptive and inferential statistics with the aid of SPSS version 21 and qualitative data was analyzed using thematic approach, P value at 0.05. An 11-point knowledge scale was used to assess respondents' level of knowledge categorized as poor (0-3), fair (4-7) and good (8-11). A 9-point practice scale was used to assess respondents practice, poor (0-2), fair (3-5) and good (6-9).

Mean age of mothers was 28.8±5.9; almost all (93.3%) were Yoruba, married (93.8%) and 48.9% completed secondary school education. Petty traders (46.7%). Above half (58.2) had 1-2 children. Information about teething were gotten from Parents (72.0%), Health provider/Clinic (54.5%) and Grandparents (48.9%). Signs and symptoms reported were fever (93.8%), diarrhea (76.4%), restlessness (77.8%), loss of appetite (84.9%), gingival swelling (83.9%), cough (68.4%), vomiting (61.8%), running nose (81.3%) and convulsion (16.4%). Culturally, 78.7% of respondents saw diarrhea as a sign of teething. Home remedies (e.g herbs, Over the Counter Drugs) were used by 97.3% of respondents. Most respondent (67.1%) prefers home based remedies because it works better. Fever during teething was managed by teething syrup (59.1%), Paracetamol (49.3%), tepid sponging (8.0%), herbal medication (7.1%) and (1.8%) visit a physician. Slightly above half (52.0%) managed diarrhea with Oral Rehydration Therapy and 12.4% opted for consulting a physician. However, (20.0%) said nothing should be used for the child. Of all, (12.4%), (84.4%)

and (3.1%) had poor, fair and good knowledge about teething respectively. Majority (75.4%) had poor practice. When it comes to management of a child during teething. Significant association was found between knowledge of respondents and parity. Occupation of Respondents had significant influence on the use of home remedies.

Respondents had fair knowledge with their source of information from parents, however knowing about teething did not translate to good management practice. This study also revealed poor management practice by mothers during teething. There is great need to adequately educate parents, caregivers and the general public to help correct the false beliefs attributed to teething and foster prompt health seeking behavior.

Keywords: Teething, Practices, Mothers of under-two, Odontiasis

Word count: 490

TABLE OF CONTENT

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDIXES

LIST OF ABBREVIATIONS

FDG	Focus Group Discussion
U-2	Under-Two
SDG	Sustainable Development Goal
W.H.O	World Health Organization
NSAIDs	Non-Steroidal Anti-Inflammatory Drugs

DEFINITION OF TERMS

According to this study, the following are operational definitions and their meaning.

Mothers of Under-two: Mothers of children who are less than two years old.

Teething: To grow or cut milk teeth.

Odontiasis: Medical name for teething.

Deciduous teeth: Baby teeth, milk teeth or primary teeth.

Diarrhea: Abnormally loose or watery stools.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Teething which is medically known as Odontiasis (Mesh, 2018) can be defined as the eruption of primary teeth in infancy, which usually begins around 4-10 months after birth with further eruption progressing at the rate of approximately one new tooth per month (Ige, 2013).

It is the process by which an infant's first teeth appear sequentially by emerging through the gums. The process and timing of teething is considered an important milestone for the child by physicians and especially the parents and society at large. The onset of teething symptoms typically precedes the eruption of a tooth by several days. It is a physiological process which creates little local discomfort but usually with no systemic upset (Nsirimobu, 2014). The full complement of the twenty deciduous teeth is almost completed in 30 months old child (Baykan, 2010).

Teething is one of the major milestones in the development of the child with many cultures having different perspective of the variations that is encountered in the process of teething (Al-Jasser, 2003). For example, some belief that an infant must have diarrhea while teething in other to lose some weight so they can walk on time. Old wives' tale also considers precocious eruption as a sign of great intelligence in some culture while traditional ceremony is organized to celebrate the eruption of the tooth in another culture.

The issue of symptoms associated with teething had been controversial with some people believing that specific symptoms are associated with teething while others claimed that the contrary is true (Wake, 2002). Traditional beliefs also strongly associate specific symptoms with periods of teething in children.

Despite the fact that there is no consensus on the signs and symptoms of teething, and that of many claimed features reported by mothers can be explained by non-teething causes, many still firmly believe that their children are teething with some symptoms that had been pinpointed such as fever, diarrhea, general irritability, drooling of saliva, sleep disturbance, and ear infection (Sarrell, 2005). Others that are identified include pain, inflammation of the mucus membrane overlying the tooth,

facial flushing or circumoral rash, gum rubbing/biting/sucking, constipation, loss of appetite and alteration in the volume of fluid intake.

1.2 Statement of the problem

The assumption of a link between common symptoms such as febrile illness, diarrhea and the eruption of primary teeth has been established over many centuries (Getaneh, 2018). The relationship between deciduous teething and the general health of an infant has been documented over half a decade ago. A variety of physical, local, and systemic disturbances have usually been attributed to teething (Ozeigbe, 2011).

One of the greatest challenges confronting the government in Nigeria today is the need to reduce infant and child morbidity and mortality to achieve the sustainable development goal (SDG) 2030. Infant mortality is generally used to describe the death of infants or babies that were born alive but died before their first birthday. Diarrhea happens to be the second leading causes of death in children less than five years old (WHO, 2017). There is generally marked inequality in infant death between developed and developing nations but also within them. Culture has been found to influence the health of the people especially in developing countries where majority of the people are traditionally oriented and superstitious.

Teething is generally associated with gum and jaw discomfort as the infant's tooth prepares to erupt through the gum surface. As the tooth moves beneath the surface of the gum tissue, the area may appear slightly red or swollen. Erection of permanent teeth rarely cause the discomfort associated with eruption of "baby" (primary or deciduous teeth) (Mesh, 2018).

According to Mesh 2018, teething may cause the following symptoms which includes increased drooling, restlessness or decreased sleeping due to gum discomfort, refusal of food due to soreness of the gum region, fussiness that comes and goes, bringing hands to the mouth, mild rash around the mouth due to skin irritation secondary to drooling, rubbing the check or ear region as a consequence of referred pain during the eruption of molars. But stated however that teething is not associated with fever (especially over 101F), diarrhea, runny nose, cough, prolonged fussiness, and rashes all over the body. Many signs and symptoms have been attributed to teething in children with the possibility of overlooking potentially fatal conditions. The possibility that any of these

symptoms could have been due to other causes call for thorough investigation of the child before concluding that it is only 'teething'.

Misconceptions are associated with teething process in Nigeria and are often blamed for symptoms in infants. A horrendous incident occurred in Nigeria in 2008 which recorded 84 infant deaths due to consumption of adulterated teething syrup to prevent teething problems. In the quest to engage the populace, particularly mothers, in health education to change this erroneous mindset about teething, it will be necessary to first know their knowledge, cultural beliefs and practice during teething.

Teething gel which contains Benzocaine can cause methemoglobinemia, a serious condition that can cause death by limiting the ability of red blood cells to transport oxygen throughout the body. Individuals who develop this condition will become confused, lightheaded, pale and experience shortness of breath and rapid heart rate. In late 2016, the FDA intensified the warning given in May 2011 for parents to stop the use of teething tablets and gels containing the topical anesthetic benzocaine which is the main ingredient in those oral medications such as Orajel (Mesh, 2018).

Even though grandmothers may debate the findings, research has not shown a causal relationship between teething and development of a fever. Viral infections, which commonly occur independently simultaneously with dental eruptions, may produce a fever. However, there is no teething virus (Mesh, 2018).

Several myths about teething and its remedies exist in different cultures from time immemorial. It was so common to attribute serious diseases to teething that in 1842, teething was said to be the registered cause of death in 4.8% of all infants who died in London under the age of one year and 7.3% of those between the ages of one-three years while in 1910, one thousand six hundred deaths were recorded to be due to teething in England and Wales (Olarewaju, 2013). While teething is a natural process that causes minimal local discomfort, remedies for teething has done more harm than the teething process itself (Nsirimobu, 2014).

Old remedies to teething includes blistering, bleeding, placing leeches on the gum, applying cutlery to the back of the head and lancing - a method where lancet was used to cut the gum in order for the teeth to appear. It was thought that failure of the tooth to appear was due to lack of

pathway and that this could cause death (Dally, 1996). These false beliefs about teething may interfere with health seeking behavior and management of wide range of serious illnesses which are attributed to teething. Delayed diagnosis on the other hand of underlying serious medical conditions may have far reaching consequences including mortalities from otherwise preventable and treatable diseases (Swann, 2010).

Many parents and even some health care givers still associate teething with one symptom or the other with the possibility of overlooking fatal condition. The association of teething with some symptoms by grandparents, mothers and even health care workers has encouraged the use of teething medications for children. To avoid missing more life threating condition, it is therefore advised that health care givers should regard teething as a diagnosis of exclusion to be made with caution. That is, the child should be taken to seek medical help for the exclusion of other organic causes to effectively manage the child (Tighe, 2007). With many symptoms attributed to teething in infants, not that mothers use cultural remedies alone, they also give unnecessary treatments to the infants like antibiotics (Bhavneet, 2012). Misconceptions about teething and their remedies are still prevalent (Markman, 2009).

1.3 Justification of the study

The normal developmental process makes interpretation of research on teething particularly challenging. One example is the normal salivary gland development which occurs at about two to three months of age when the salivary glands of infants begin to function which contributes to constant drooling, which mothers may misinterpret as a sign of teething (Edward, 2011).

At approximately six months of age when the primary teeth are about to erupt, maternal antibodies upon which young children depend begins to decrease while they build up their own antibodies which are not yet sufficient to defend them against infections (Bankole, 2005). Also, the reason people think teething causes fever, diarrhea and other symptoms is because sometimes babies develop a lot of viral illnesses at that time, not knowing it is just a coincidence (Celia, 2018).

Furthermore, this same age is when children begin to crawl and place unclean objects in their mouths which can introduce pathogens into their bodies and may lead to gastrointestinal disturbances such as vomiting, diarrhea with associated increase in body temperature. Diarrhea

which is one of the symptoms that has been associated with teething causes death of 2,195 children daily, 801,000 children yearly and 1 in 9 deaths are due to diarrhea (CDC, 2015).

This study aims to get information from mothers of under-two about their knowledge, attitude, and practices during management of teething in children. This will help in identifying common myths pertaining to teething in children and highlight possible measures in taking health promotion interventions towards teething in children forward and to know the specific measures required.

The result of findings from this project will also help to distinguish between facts and false beliefs associated with teething.

1.4 Research Questions

1. What is the knowledge of the mothers of under-two about teething in Ibadan North LGA of Oyo State?
2. What are the attitudes of mothers of under-two towards teething in infants in Ibadan North LGA of Oyo State?
3. What are the practices associated with teething management among mothers of under-two in Ibadan North LGA of Oyo State?
4. What factors influences the practices mothers of under-two employ in relieving infants of the discomforts encountered during teething process?

1.5 Objective of the Study

1.5.1 Broad Objective

To investigate the knowledge, attitude and practices of mothers of under-two during management of teething in Ibadan North Local Government Area, Oyo State

1.5.2 Specific Objectives of the study are to:

1. Determine the level of knowledge of mothers of under-two about teething in Ibadan North LGA of Oyo State.
2. Document the attitudes of mothers of under-two towards teething in infants in Ibadan North LGA of Oyo State.

3. Ascertain the practices associated with teething management among mothers of under-two in Ibadan North LGA of Oyo State.
4. Identify the factors that influence practices to relieve the discomfort encountered during teething process in Ibadan North LGA of Oyo State.

1.6 Research Hypotheses

Ho1: There is no significant relationship between socio-demographic characteristics and treatment methods used by mothers.

Ho2: There is no significant association between socio-demographic characteristics and knowledge of teething among mothers.

Ho3: There is no significant association between socio-demographic characteristics and practice of teething management among mothers.

CHAPTER TWO

LITERATURE REVIEW

2.1 Overview of Teething

Teething is the process by which an infant's first teeth (the deciduous teeth, often called ('baby teeth' or 'milk teeth') sequentially appear by emerging through the gums, typically arriving in pairs. The mandibular central incisors are the first primary teeth to erupt, usually between 6 and 10 months of age (Roger, 1974). Though the process of teething is sometimes referred to as 'cutting teeth', when teeth emerge through the gums they do not cut through the flesh. Instead, hormones are released within the body that causes some cells in the gums to die and separate, allowing the teeth to come through.

Tooth eruption is universal, recurrent and easily observed. A child's first tooth usually erupts between 4 and 10 months of age, and the full complement of 20 deciduous teeth is almost always present by 30 months (Ige, 2013). Therefore, the average child erupts roughly a tooth per month between 6 and 30 months of age, coinciding closely with a period in which infants are known to experience frequent minor illnesses and rapid developmental change. Probably because of this temporal association, casual attribution of signs and symptoms of illness to teething appears to be nearly universal across cultures and continents.

Tooth eruption is a process by which a tooth moves from its developmental position within the jaw into its occlusal position in the oral cavity (Avery, 2003). Though McDonald and Avery stated that teething is a physiological process, and it does not cause any alteration capable of provoking discomfort emphasizing that these may be coincident to the event. There has been a controversial relationship between the eruption of deciduous teeth and infants' general health and has been documented for many years. Some researchers recognize that the manifestation of either local or systemic symptoms is associated with the teething process.

Throughout history, teething has been held responsible for a variety of childhood illnesses. Parents' false beliefs about signs and symptoms associated with teething may interfere with the prompt diagnosis and management of serious illnesses (Adimorah, 2011). It is unclear whether the local or systemic disturbances observed in infants during teething would be related to the teething process itself or to other developmental origins.

The appearance of the first set of teeth in children is an important milestone in the development of the child. Usually, eruption of the teeth causes little or no distress to children (Al-Jasser, 2003). Teething is described as a harmless, normal physiological phenomenon (Anderson, 2004). However, myriads of myths and misconceptions continue about signs and symptoms of teething such as erroneous beliefs by mothers relating fever and diarrhea to teething. Teething may cause a slightly elevated temperature, but not rising into the fever range, 100-101F (37.8-38.3C). Higher temperatures during teething are due to some form of infection, such as herpes virus, initial infection of which is extremely widespread among children of teething age (Jaber, 1992).

2.1.1 Stages of Teething

Although, the exact timing varies from child to child, but babies typically begin teething from around six months of age. There are five stages of teething in children and understanding what these different stages entail will help parents ease the discomfort of their babies (Girdlestone, 2019).

Stage 1 (0-6 months): At birth, babies have a full set of 20 primary teeth in their jaw bones beneath their gums. These are frequently referred to as 'milk teeth' as the baby feeds on milk at this period.

Stage 2 (6-8 months): During this stage, the first teeth emerge. The lower and upper front teeth begin to erupt around six months, but signs of pain and discomfort may be evidence before six months.

Stage 3 (10-14 months): During this period, it is also common for babies to experience a bit of loss of appetite, mild fever, and diarrhea. A baby's sleep schedule may become more sporadic.

Stage 4 (16-22 months): During this stage, the canine teeth (between the top and bottom of molars and incisors) will surface. The same recommendation for stage 2 and 3 can be implemented during this period to keep the baby as comfortable as possible.

Stage 5 (25-33 months): For some children, this is the most painful stage of teething. During this time, the large molars emerge which are the biggest teeth (Gridlestone, 2019).

2.1.2 Sequence of Appearance

The infant teeth tend to emerge in pairs-first one lower incisor emerges before the next set begins to emerge. The general pattern of emergence is:

- Lower central incisors (2) at approximately 6 months.
- Upper central incisors (2) at approximately 8 months.
- Upper lateral incisors (2) at approximately 10 months.
- Lower lateral incisors (2) at approximately 10 months.
- First molars (4) at approximately 14 months.
- Canines (4) at approximately 18 months.
- Second molars (4) at approximately 2-3 years (Bhattacharjee, 2017).

2.2 Misdiagnosis as Teething

Teething has not been showed as the cause of fever or diarrhea. However, the belief that teething causes fever is extremely common among parents (Owais, 2010). Whilst there is some evidence that teething can cause an elevated temperature, it does not cause fever. One small 1992 study found it a significant rise in temperature on the day of eruption of the first tooth. Another study in 2002 found 'mild temperature elevation' but not fever 102F (39C) (Macknin, 2000).

There is a risk that fever around the age of teething is dismissed as due to teething when it is due to sickness, particularly infection by herpes viruses. Coincidentally, primary tooth eruption begins at about the time that infants are losing maternal antibody protection against the herpes virus. Also, report on teething difficulties has recorded symptoms which are remarkably consistent with primary oral herpetic infection such as fever, irritability sleeplessness and difficulty with eating (Steinhauer, 1992).

Time of first tooth eruption often coincides with period of declining maternal protective immunity, coupled with poor personal hygiene and environmental sanitation, incidence of diseases such as malaria and diarrhea may be expected to increase at this period, which is often wrongly attributed to teething by mothers.

2.3 Teething Remedies

Before treating a baby for teething, it is important to know what is causing the baby to be upset. Rubbing a finger gently along the gums in search for swollen ridges or the feel of a tooth below the gums is one way to be certain.

A teething ring is generally a soft plastic device that can be chewed on and allows the baby to break down some of the gum tissue which promotes the growth of the teeth out of the gum. Some teething rings can easily be broken, or damaged, so other types of teething devices can be made from household items (Alli, 2019).

Placing a wet washcloth in the freezer for a few minutes and then applying it gently to the gums can be effective, but care must be taken not to expose the baby's gums to coldness for too long. Some infants gain relief from chewing on cold objects. Some children respond well to chilled foods. Suggestions for chilled foods that might appeal to a baby include apple sauce, yogurt, and pureed fruits.

2.3.1 Medications

In cases where the infant is in obvious pain, medication like Acetaminophen (children's Tylenol) can be given to a child. However, Ibuprofen should not be used in infants less than 6 months (Mayo Clinic, 2018).

Medicines are often then applied to the babies' gums to relieve swelling and pain. These gels are similar to toothache gel that is used by adults for some gums and teeth.

2.3.2 Unsafe teething remedies

Teething Gels with Benzocaine: Parents are been advised not to use benzocaine teething gels on children under the age of two as it is an unsafe topical numbing cream except under doctor supervision. Benzocaine can cause methemoglobinemia, a serious condition that can cause death (Bahl, 2018).

Amber Necklaces: There is a substance called succinic acid that has been found to be in amber from the Baltic Region, and it is supposed to go through the skin to create an analgesic effect.

Though so far, there is no data at all that any is leached out into the skin, Doctors have warned parents that the necklace are a choking and strangling hazard (Shapiro, 2018).

Homeopathic Teething Tablets: In late 2016, the FDA advised parents to stop the use of this teething tablets and gels after multiple incidents of babies and toddlers having seizures after taking them.

2.4 Signs and Symptoms

The level of pain that a baby can handle will be different for each child. Some may appear to suffer more than others while they are teething. The soreness and swelling of the gums before a tooth comes through is the cause for the pain and fussiness a baby experiences during this stage. These symptoms usually begin some days before the tooth shows and they disappear as soon as the tooth breaks the skin. Some babies are not even bothered by teething.

Common symptoms include drooling or dribbling, increased chewing, mood changes, irritability or crankiness, and swollen gums, crying, sleeplessness, restless sleep at night, and mild fever (Mesh, 2018). In rear cases, an area can be filled with fluid and appears over where a tooth is erupting and cause the gums to be even more sensitive. Pain is often associated more with large molar since they cannot penetrate through the gums as easily as the other teeth. Some noticeable symptoms that a baby has entered the teething stage include chewing on their fingers or toys to help relieve pressure on their gums. Babies might also refuse to eat or drink due to pain. Symptoms will generally fade on its' own, but a doctor should be notified if they worsen or are persistent. Teething may cause signs and symptoms in mouth and gums, but does not cause problems elsewhere in the body (Mayo Clinic, 2010).

Pulling of the ears is another sign of pain; the pain in the mouth throbs throughout the baby's head so they pull their ears believing that it will provide relief. Mild rash can develop around the mouth due to skin irritation that is caused by excessive drooling or dribbling.

Teething which is an important developmental skeletal milestone have different perception in different culture. Different cultures have varied believes associated with teething, some believe it causes fever (granny's tale), while in some Nigerian communities, other complaint related to

teething include diarrhea, drooling of saliva, irritability, loss of appetite, poor weight gain, convulsion (Adimorah,2011).

Teething myths are common among nursing mothers in North-Western Nigeria, and their family members are common sources of these erroneously perception. Therefore, parents should be educated on normal expectations of teething, and not to undermine serious illnesses such as febrile illnesses and diarrhea diseases erroneously attributing them to teething. Health care practitioners ought to do more in enlightening parents on teething, and best ways of addressing issues related to it (Aliyu et al; 2015).

Teething is a physiological process; however, it has been associated with a lot of erroneous perceptions over the years and at times resulting in harmful practices to children. Illnesses often attributed to teething by mothers varies in different society however, common example include fever, diarrhea and vomiting. A study done to identify common myths associated with teething in two health facilities in Nigeria, and sources of these misconceptions, the discovered that the observations gathered from mothers between 25-40 years old that partook in the study was like that observed by Opeodu and Denloye, 2014.

Some complaints associated with teething are beyond medical explanation, and parents still hold on tenaciously to these believes despite evidence to the contrary (Sarrell, 2005). It was documented that most of the mothers in this study believed that teething was associated with symptoms (90.62%), which was similar to that reported by (Baykan et al 2004), surprisingly, convulsions was reported as been caused by teething; however fever, loss of appetite, loose stools, and vomiting were the most common complaints documented in the study which is similar to that documented by Ige and Olubukola (2013), which reported fever as the third most common complaint and loose stools was reported by 51.8% of the nursing mothers which was higher than the 28.8% reported by (Ene-Obong, 2000).

Most mothers (60.4%) got information on teething from their parents and grandparents, which was like that reported by Smitherman (2005), but higher than the 48% documented by Opeodu and Denloye (2014). Only 0.4% and 8.0% of the mothers were informed on teething at the hospital and school, respectively. The educational and occupational status of nursing mothers did not significantly influence their perceptions on teething in this above study.

In Nigeria, a 1991 study reported that 58% of the respondents believed that teething might be accompanied by various local and systemic problems including fever, diarrhea, and conjunctivitis. While another study according to Paul and Fatoki conducted in Nigeria in 2014 found that most of the mothers (95.2%) perceived teething to be associated with various symptoms while only 4.8% did not. The commonest problem reported were fever (90.3%), diarrhea (87.3%).

Another study conducted by Aliyu et al; 2015 among nursing mothers attending immunization clinic of two Federal Medical Centers in Birnin Kebbi, Kebbi State and Birnin Kubu, Jigawa State in Nigeria found out that 90.62% of them believed teething caused symptoms like diarrhea, vomiting, increased salivation. However, fever was the predominant complaint, and their parents were the most source of information on teething in 50%of them, while only a mother (0.4%) was informed on the process of teething at the hospital.

It was stated in another study conducted in Ethiopia by Getanah et al; 2018 that 91.6% of the mothers claim that teething was associated with various symptoms. Ninety- seven (97%) attributed diarrhea to teething. Some of the pactices by mothers to elieve the symptoms include rubbing the gum of the child with garlic (12.1%) or rubbing the gum with herbs (6.5%).

A study conducted in Benin by Adam et al; 2015 showed that the commonest symptoms reported were fever (85.7%) and diarrhea (80.0%). And a greater proportion (74.4%), (61.8%) and (61.1%) managed teething discomfort with teething syrups, tepid sponging, and teething toys respectively.

The extended family in our setting in Nigeria may have a strong influence in their perception of health-related events because parents and grand-parents readily share their personal experiences with their children even if they are wrongly interpreted.

2.5 CONCEPTUAL FRAMEWORK

The Social Learning Theory was used for this study. This theory was postulated by Albert Bandura, posits that people learn from one another via observation, imitation and modeling. It says people learn through observing other's behavior and attitudes. Social learning theory explains human behaviour in terms of continuous reciprocal interaction between cognitive, behavioral and environmental influences. It incorporates the idea of behavior reinforcement from the former, and

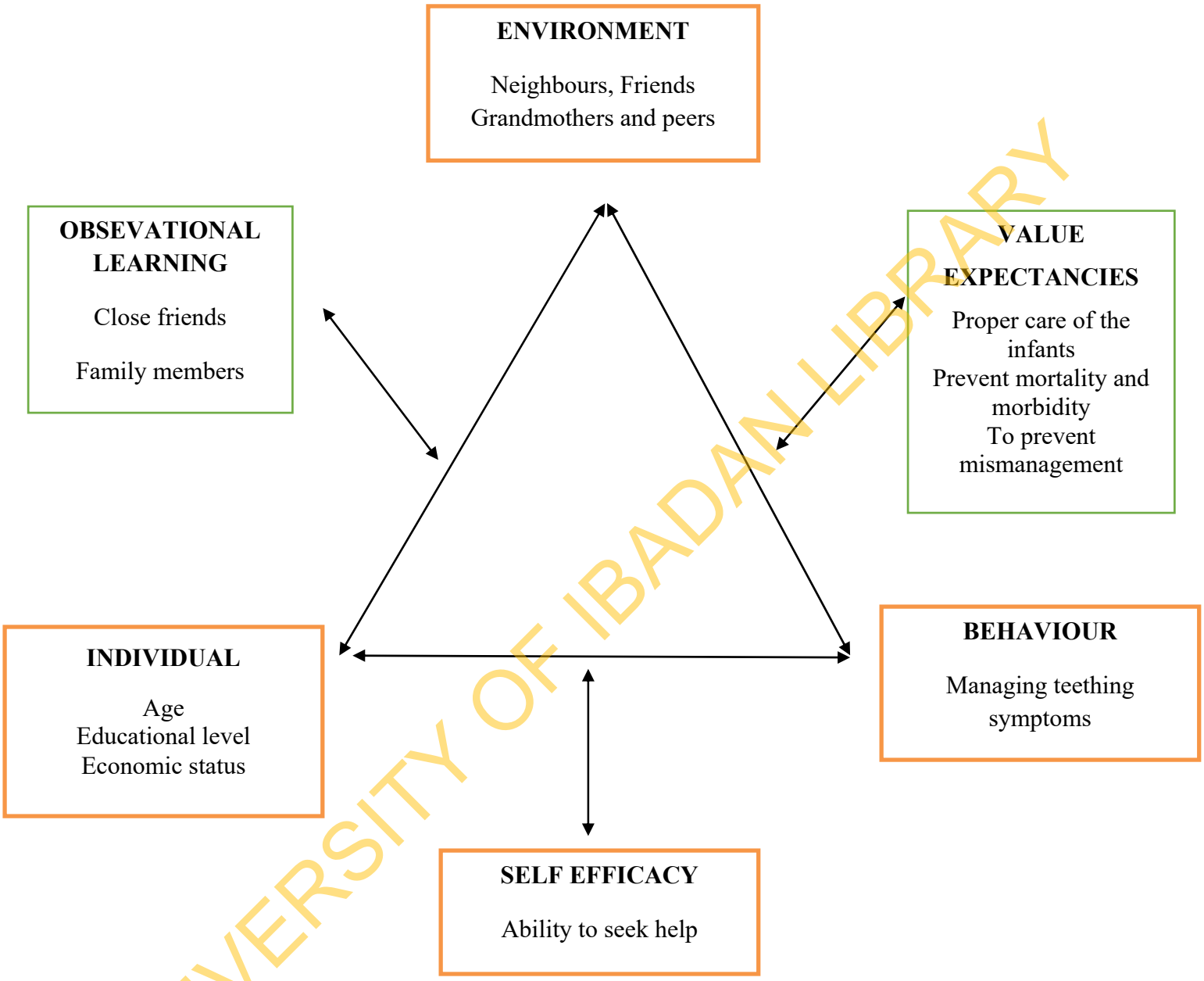
cognitive processes such as attention, motivation and memory from the latter. For example, mothers will often exhibit learning for things which they have no prior knowledge of before.

Social learning theory is increasingly sited as an essential component of sustainable natural resource management and the promotion of deairable behavioural change. This theory is based on the idea that we learn from our interactions with others in social context. Separately, by observing the behavior of others, people develop similar behaviors. Bandura believes that direct reinforcement could not account for all types of learning. For that reason, in his theory, he added a social element, arguing that people can learn new information and behaviours by watching other people through observation, imitation and modeling.

Enivromental factors: There is always an interaction between the environment and an individual's behavior because it has the power to influence their beliefs on issues. Issues addressed include; cultural belief of mothers about teething and their perception towards teething.

Personal factors: Such as mothers of under-two' value of expectancies, age, their educational and economic status. And one of the issue addressed via this study is their source of information (grandparents, health provider, social media, television, radio and so on).

Behavior: It has been said that behavior is usually influenced by some factors. So after mothers of under-two have been exposed to if not all some of these factors, how do they then manage teething symptoms in children? One of the issues looked into is if mothers do opt for home or hospital based remedies during the management of their child during teething.



Source: recap.et.org

Figure 2.1: Social Learning Theory

CHAPTER THREE

METHODOLOGY

3.1 Study design

A descriptive cross-sectional design was used for this study using questionnaire and focus group discussion to investigate the knowledge, attitude and practices of mothers of under-two during management of teething in Ibadan North Local Government Area, Oyo State.

3.2 Study Area/ Setting

Ibadan North Local Government Area is made up of twelve wards and twenty-two communities which have been stratified into three community types. Each of these community types has four wards (Falade, 1999).

1. Inner core Community type: This can be described as a geographical area that is located at the central or innermost part of a city and lies within an area of key economic activity and particularly associated with social challenges examples of which are poor environmental hygiene, inadequate housing, and high levels of crimes and high rate of unemployment.
2. Transitional Community type: This is a community type undergoing process of change in terms of housing and infrastructural development but with less social problems.
3. Peripheral Community type: This is a geographical area which lies just outside an area of key economic activity.

   It is usually a new residential area with marked layouts, streets, and linked access road. It has an area of 27km square and apopulation of 856,988 according to the Oyo State Government in 2017. It also has bustling academic and economic activities with the presence of the first Primier University in Nigeria, the University of Ibadan, founded in 1948, and The Polythecnic, Ibadan in 1970 creates an aura of lively place to live in.

3.3 Study Population

The target population was mothers of under-two currently residing in Ibadan North Local Government Area, Oyo State.

3.4 Inclusion criteria

Participants eligible for this study were all women who have at least a child of under–two and are either resident or visiting the study area at the time of the study.

3.4.1 Exclusion criteria

Individuals in the study area were not eligible to participate in the study if:

1. Any of the inclson criteria listed above were not met.
2. If the respondent is ill at the time of study.
3. If respondent refuse to give their consent.

3.5 Sample size

The sample size for this study was estimated using Leslie Kish formula for single proportion which is as follows?

$$n = \frac{Z^2pq}{d^2}$$ (Leslie Kish Formula)

Where:

n = sample size,

Z_α = standardized normal deviation which is a constant (1.96) at 95% confidence interval.

P = 84.3% = 0.843 Mothers negative perception of teething in children, Port Harcourt (Nsirimobu, Olarewwaju, 2014).

q = 1 – p (1 – 0.843) = 0.157 d = 0.05 at 95% confidence interval

$$n = \frac{Z^2pq}{d^2} = \frac{1.96^2 \times 0.843 \times 0.157}{0.05^2} = 203$$

Considering a Non-response rate of 10% =203 /1-10%= 225

3.6 Sampling technique

A multi-stage sampling procedure was used to select the sample size in the LGA. The sample was chosen following these steps:

1. The first stage involved selection of two wards from each of the community type randomly.
2. The second stage was selection of one community from each ward randomly (since each ward is made up of several communities and all of them cannot be selected).
3. The third stage was selection of houses in these communities through systematic sampling after the enumeration.
4. The fourth stage involved final selection by simple balloting of mothers of under-two (if more than one eligible participant in each house)

First, the twelve wards in Ibadan North LGA were listed out to show where each of the ward belongs in terms of community type using the map of the Local government.

Each commntiy type consists of four wards (Table 3.1 below). Out of the number, two wards were randomly selected using balloting from each community type (Table 3.2). Two wards from Inner Core, two wards from Transitional and two wards from Pehiral Commnity type to make a total of six in all.

Table 3.1: Details on stratification into community types

Commnity Type	Wards Covered	Area/Commnity covered
Innercore Commnity type	Ward 1 Ward 2 Ward 3 Ward 4	Beere,Kannike, Agbadagbudu, Oke-Are, Odo-oye Ode-Oolo, Inalende, Oniyanrin and Oke Oloro Adeoyo, Yemetu, Oke-Aremo and Isale-Alfa Itu taba, Idi-Omo, Oje-Igosun, Kube, Oke-Apon, Abenla, Aliwo/Total Garden and NTA area.
Transitional Community type	Ward 6 Ward 7 Ward 8 Ward 12	Has only one large community 'Sabo Area'. Oke-Itunu, Coca-cola and Oremeji area Sango and Ijokodo area Agbowo, Bodija market, Oj irin, Barika, Isopako, Lagos/Ibadan Express road.
Peripheral Community type	Ward 5 Ward 9 Ward 10 Ward 11	Bashorun, Oluwo, Ashi, Akingbola, Ikolaba, Gate Mokola, Ago Tapa and Premier Hotel area Bodija, Secretariate, Awolowo, Obasa and Sanusi Samonda, Polytechnic and niversity of Ibadan Area.

Table 3.2: Communities with the numbers of mothers of under-two finally selected by randomization.

S/N	Six randomly selected wards	Numbers of communities in each ward	No of communities finally selected in each ward	No of Respondents randomly selected based on the size and number of co mnities selected from each ward
A	**Inner Core**			
	Ward 1	5	1	56
	Ward 3	4	1	45
B	**Transitional**			
	Ward 7	3	1	47
	Ward 12	6	1	22
C	**Periphral**			
	Ward 5	6	1	20
	Ward 9	3	1	35
	GRAND TOTAL	**27**	**6**	**225**

3.7 Instrments for Data Collection

Two research instruments both qualitative and quatitative were used for this study. These include,

1. Focus Group Discussion Guide (FGD Guide)
2. Semi-Structured Questionnaire

Focus Group Discussion Guide

In this study, FGD Guide was used. The guide was drawn based on the objectives for this study and questions were drawn in a way that could elicit discussion among the participants. It is formulated as a series of sample open-ended questions. Some of these questions have probing characteristics that were asked at intervals. This FGD Guide was made up of seven questions which looked in definition and stages of teething, dangers associated with teething, remedies mothers use, cultural beliefs towards teething, importance of breastfeeding dring the teething process and complications perceived to be associated with teething.

Semi- Structured interviewer administered Questionnaire.

Another instrument that was used for data collection was the semi- structured interviewer administered questionnaire drawn to elicit information from the respondents according to the objectives of the study.

The questionnaire was divided into five major sections based on the objectives of the study (including section on socio-demographic data).

SECTION A: Socio-demographic characteristics

SECTION B: Knowledge about teething among mothers of unde-two

SECTION C: Attitude of mothers towards teething

SECTION D: Cultural beliefs of mothers towards teething

SECTION E: Management of teething by mothers of under-two

3.8 Validity

Okoro (2001) stated that validity refers to the accuracy of an instrument that is, how well it measures what it is supposed to measure. The instrument was validated by comprehensive review of relevant literatures and Formulation of research objectives. The developed questionnaire was subjected to peer reviews from specialiat in health promotion and education which includes my supervisor to ascertain the content validity of the developed instrument.

3.9 Reliability

Reliability of an instrument is a measure of consistency in which the instrument will measure what it is supposed to measure. The researcher employed a pre-test among 10% of the sample size in establishing the reliability of the instrument. This was carried out among mothers of under-two at Olorunsogo Molete in Ibadan South East LGA a similar population in Ibadan, Oyo State. Revision was made on the instrument based on the analysis of the reslt of the pre-test before the commencement of the study. Reliability analysis for questionnaire was done by using the Cronbach Alpha statistical test and a reliability coefficient of 0.743 was gotten and considered reliable.

3.10 Collection Procedure

Data for this study were collected through the use of the following:

Focus Group Discussion- Data for this study was collected using "Focus Group Discussants". These were group of people brought together as representatives of the target population to talk about key topics. They were residents of the study area whose consents were sought before participating in the group discussion.

a) Selection of participants into FGD

Initially, the investigator had reached out to the community leaders in each of the community selected for the study. Through these community leaders' adequate numbers of mothers of under-two were constituted for the Focus Group Discussion (FGD).

Individuals were conveniently selected in a systemic way. Every two persons presented by the (focal person) were randomly selected to participant in the Focus Group Discussion (FGD). Two

of the community type constituted one group each while one of the community type had two groups constituted. Each constituting of 6-12 mothers of under-two.

Efforts were made to select participants who were having roughly the same or similar socio-demographic data in a way that their age, marital status and occupation facilitated free discussion because if theirbackgrounds were not similar, some participants may find it difficult to feel comfortable and speak honestly about the topic being discussed.

In all, 34 mothers of under-two were selected and participated in the four (4) FGD conducted in the LGA of study. All the respondents were females (mothers who have at least one under-two), mostly of age between 20-38 years. Less than one third of the participants had post secondary education, while majority had basic elementary education. Most of the participants were petty traders.

b) **FGD Sessions**

Before the commencement of the discussion, an address was given to the participants. They were assured that the discussion will not take mch of their time. Aside this, they were told that drinks and a little gift were available for them. The moderator then recorded the personal data of each member of the discussion grop in a form. These consist of age, marital status, educational status, parity, ethnicity, and occupation. Although question guide was provided for the moderator, but the discussion was conducted in an informal manner and very interestingly enough as to motivate the members to speak and respond to each other, rather than following a strict question and answer format.

A tape recorder and a writing material with paper considered especially important during each discussion meeting to record responses and information given by the participants. To avoid disappoint, an extra tape-recorder was made to be on stand in case the one being used develops some faults.

c) **Procedure**

Four FGD sessions were held in the LGA. Each session lasted 45minutes and 1 hour. The field team consisted of a moderator, rapporteur, and an observer. The moderator asked questions and guided the discussion while rapporteur's role includes taking note on what the group members say

and how they respond. The translator (who is the investigator) ensured that the question guide was adequately translated into Yorba language and interpreted to the group by the moderator.

d) **FGD Guide**

To guide the discussion, a question guide was developed from research questions. This simple tool consisted of a list of simple open-ended questions. The group moderator uses follow up questions to encourage participants to say more on specific topics, especially if their comments were not clear enough.

e) Sites for FGDs

The meeting was held and arranged in a quiet place. The sitting arrangement was in semi circlar form in such that the participants were facing each other and there was eye contact.

f) Qualitative Data Analysis

Qualitative Data was analysed using thematic approach. Focus Group Discussion was transcribed, coded, compared and common themes were identified.

Questionnaire

i) Recruitment and training of research assistants

The data was collected with the help of three (3) research assistants who were trained prior to the administration of the questionnaire. They were trained in the administration of the questionnaire and the informed consent and assisted the respondents with any of the questions they find difficult to understand or comprehend. The research assistants were colleagues in the Department of Health Promotion and Education who are knowledgeable about the subject matter.

ii) Quantitative Data Management and Analysis

Serial numbers were written on the copies of the questionnaire for easy entry and recall. A coding guide was developed along with the data collection tool in order to facilitate the analysis. Questionnaire was also being reviewed to ensure consistency, completeness and was safely kept. Cleaning and coding of data for analysis were also being done.

With the use of a coding guide, the data collected was carefully entered into the Statistical Package for Social Sciences (SPSS) version 21 at 5% level of significance. Descriptive statistics were used for socio-demographic data to measure the mean and standard deviation. The relationships between knowledge, management practices and respondent characteristics and were examined using Fishers exact test analysis. The result of the analysed data were presented using tables and charts.

For calculation of knowledge and practice score, an 11-point knowledge and a 9-point scale was used respectively. Each knowledge and practice item obtained a score "1" for the correct answer and "0" for wrong or do not answers. A total score was calculated and was divided into: poor score (0-3), fair (4-7), and good score (8-11) for knowledge and poor (0-2), fair score (3-5) and good score (6-9) for practice.

3.11 Ethical Considerations

Ethical approval was obtained from the Ethical Review Board from Oyo State with approval number- AD 13/479/1295 before going to the field for data collection. After this, the purpose and the procedures of the study was explained to the respondents in Yoruba a language they can understand. Informed consent and volunteerism on the part of the participant was put into consideration.

- **Confidentiality of data:** In order to assure respondents of confidentiality of the information that was supplied, names of respondents was not required, only identification numbers was assigned to the questionnaire for proper recording.
- **Translation:** The questionnaire was translated to Yoruba language for easy understanding of the questions by respondents.
- **Beneficence to Participate:** The outcome of the research will be of benefit not only to the participants but all mothers of Under-Two in the local government to provide educational intervention that will increase awareness and knowledge on how to manage a child during the teething period.
- **Non-maleficence to participants:** The research did not require the collection of invasive materials. Therefore, safety of the participants was guaranteed.

- **Voluntariness:** The participants was given full details concerning the research before taking part in it to ensure that they fully understand what the research is all about and are willing to take part in it. The participant is free to withdraw at any point of the research.

3.12 Limitations of the study

The result of this study was based on responses from the participants which may not be ascertained by this study. There might be difficulty in retrieving some information from participants because of their low educational status. To overcome this, the research instrument was translated to participants' language and research assistants were adequately trained.

CHAPTER FOUR

RESULTS

4.1 Socio demographic characteristics

There were 225 respondents recruited for this study, respondents age ranges from 15-45 years old with mean age of and that of children, respondents were comprised mostly of Yoruba ethnicity (93.3%). A significantly larger proportion (93.8%) were married. Educational status of respondents showed that almost half (48.9%) completed secondary education. A little above average (65.3%) earns between 2000-15000 naira monthly.

It was discovered that 46.7% of the mothers were petty traders. A little above average (58.2%) number of respondents whose parity is between 1-2. Equal numbers of children were found to be 6-10 months, 11-15, months and 16-20 months at 25.8%. Age of eruption of first tooth been more at 7-9 months at 44.4%. Respondents reported that 2.2% of children cut the first tooth at more than 12 months of age while 9.3% had no tooth yet.

Table 4.1.1: Respondents' Socio-Demographic Characteristics (N=225)

Socio-demographic Chaacteristics	Frequency	Percent (%)
Age		
15-24	57	25.3
25-34	122	54.2
≥35	46	20.4
Ethnic group		
Yoruba	210	93.3
Igbo	15	6.7
Marital Status		
Single	11	4.9
Married	211	93.8
Separated	3	1.3
Level of Education		
No Formal Education	7	3.1
Primary Education	36	16.0
Some Secondary Education	24	10.7
Completed Secondary Education	110	48.9
Tertiary Education	48	21.3
Monthly Income		
2000-15000	147	65.3
16000-28000	44	19.6
29000-41000	19	8.4
>41000	8	3.6
No response	7	3.1
Number of children		
1-2	131	58.2
3-4	78	34.6
5-6	14	6.2
7-8	2	0.8
Age of youngest child (months)		
1-5	16	7.1
6-10	58	25.8
11-15	58	25.7
16-20	58	25.8
>20	35	15.6

Table 4.1.2: Age of first Tooth Eruption in months (N=225)

Age of eruption of first tooth	Frequency	Percent (%)
4-6	69	30.7
7-9	100	44.4
10-12	30	13.3
>12	5	2.2

Table 4.1.3: Respondents' Occupation (N=225)

Occupation	Frequency	Percent (%)
Petty Trading	96	46.7
Professionals	57	25.3
Artisan	57	25.3
Housewife	6	2.7
Civil servant	6	2.7
Unemployed	2	0.9
Others	1	0.4

4.2 Respondents' Knowledge about Teething

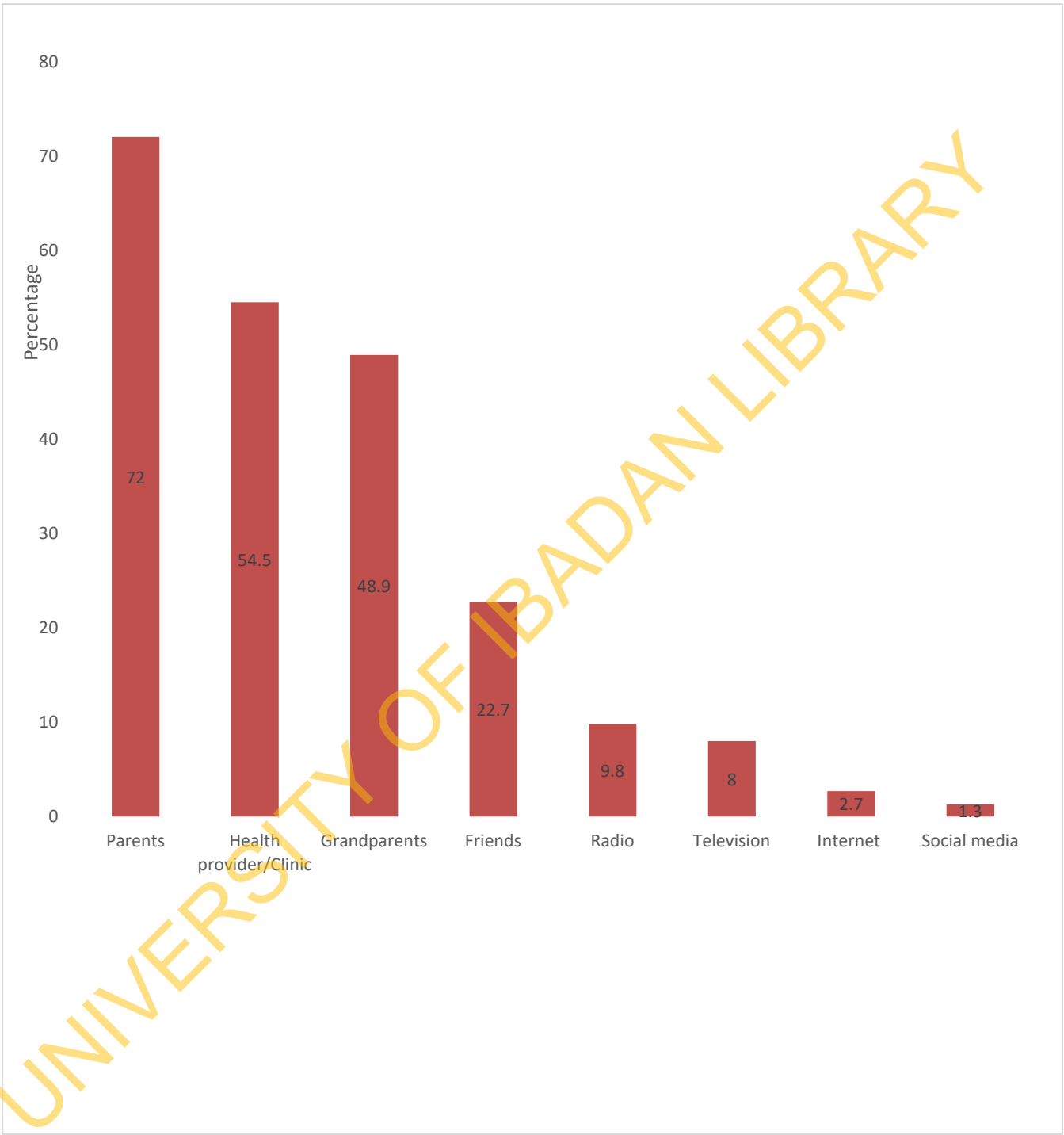
There were two hundred and seventeen respondents (96.4%) who knew that teething is the coming out of the first tooth. However, two-third (68.9%) described teething as permanent teeth eruption in children, majority (86.7%) said the process of teething is painful and 89.3% said yes to the fact that a baby' teeth starts to erupt around 4-10 months of age.

A detailed exploration of knowledge items showed that respondents' knowledge on teething is poor with (88.0%) of them attributing teething to high grade fever, majority (76.4%) also said that teething causes diarrhea. Out of all the respondents, (92.0%) saw symptoms seen during teething as due to teeth eruption while just 48.4% saw the symptoms as coincidental.

Majority (72.0%) got the information about teething from parents, followed by Health provider/Clinic (54.5%), Grandparents (48.9%), Friends (22.7%). Other sources of information identified by respondents were Radio (9.8%), Television (8.0%), Internet (2.7%) and Social media (1.3%).

Furthermore, respondents knowledge on signs and symptoms of teething was poor because (93.8%), (81.3%), (76.4%), (68.4%), (61.8%), (52.4%), (44.4%), (20.4%) and (16.4%) of respondents identified fever, running nose, diarrhea, cough, vomiting, boils, rashes, ear infection and convulsion to teething respectively.

Overall level of knowledge of respondents was deduced to be fair from a possible 19 score. It was found that (12.4%) of the respondents had poor knowledge while 84.4% had fair knowledge and just 3.1% had good knowledge about teething.



+Multiple responses

Fig 4.1: Respondents' Source of Information on Teething

Table 4.2.1: Respondents' Knowledge about Teething

Knowledge about teething	Frequency	Percent (%)
Teething describes permanent tooth eruption in children	155	68.9
Teething is a normal physiological process, so it is painless	102	45.3
The process of teething is painful	195	86.7
Baby's teeth start to erupt around 4-10 months.	201	89.3
The first teeth to appear in most infant is the lower central incisors	220	97.8
The total number of milk teeth are 24	143	63.6
The eruption of teeth is complete at approximately 24 months	57	25.3
Teething causes high grade fever	198	88.0
Teething causes diarrhea	172	76.4
Symptoms seen during teething is due to teeth eruption	207	92.0
Symptoms seen during tooth eruption are coincidental	109	48.4

Table 4.2.2: Respondents' Knowledge about Signs and Symptoms of Teething (N=225)

Signs and Symptoms	Frequency	Percent (%)
Fever	211	93.8
Weight loss	201	89.3
Loss of appetite	191	84.9
Gingival swelling	187	83.9
Running nose	183	81.3
Restlessness	175	77.8
Diarrhea	172	76.4
Cough	154	68.4
Redness of the gum	152	67.6
Vomiting	139	61.8
Increased salivating	129	57.3
Boils	118	52.4
Rashes	100	44.4
Ear infection	46	20.4
Convulsion	37	16.4

+***Multiple responses***

Table 4.2.3: knowledge distribution of respondents on teething (n=225)

Knowledge Score	Frequency	Percent (%)
Poor (0-3)	28	12.4
Fair (4-7)	190	84.4
Good (>7)	7	3.1
Total	**225**	**100.0**

4.3 Respondents' Perception towards Teething

Not up to half of the respondents (39.1%) agreed that teething has nothing to do with general body disorder compared to (51.6%) who disagreed. Majority (88.4%) agreed that teething problems begin before the teeth come out. The statement that teething problem begin as the tooth comes out was disagreed by more than half of the respondents (72.4%). More than two-third of the respondents (87.6) disagreed the statement that teething problems ends after the appearance of the first tooth as against (72.9%) that agreed to the statement that teething problem ends after the appearance of all the milk teeth. The statement that diarrhea is not a normal occurrence during teething was met with no significant difference between those who agreed and disagreed at (47.1%) and (43.6%) respectively.

In addition, majority of respondents (81.8%) agreed to the statement that fever is a normal occurrence during teething while just (15.6%) of the respondents disagreed. However, almost all the respondents (94.7%) agreed to the fact that mothers use some remedies for their children during the teething period. While (48.0%) agreed and (31.1%) disagreed that some remedies used by mothers are harmful to children and (77.3%) of the respondents agreed to the statement that mismanagement during teething can cause the death of a child.

Table 4.3.1 Perception towards Teething

Perception towards teething	Agreed (%)	Undecided (%)	Disagreed (%)
Teething has nothing to do with general body disorder	88(39.1)*	21(9.3)	116(51.6)
Teething problems begin before the teeth comes out	199(88.4)*	7(3.1)	18(8.0)
Teething problems begin as the tooth comes out	43(19.1)	19(8.4)	163(72.4)*
Teething problem ends after the appearance of the first	21(9.3)	7(3.1)	197(87.6)*
Teething problem ends after the appearance of all the milk teeth	164(72.9)*	17(7.6)	43(19.1)
Diarrhea is not a normal occurrence during teething	106(47.1)*	21(9.3)	98(43.6)
Fever is a normal occurrence during teething	184(81.8)	2(6.7)	35(15.6)*
Mothers use some remedies for their children	213(94.7)*	5(2.2)	7(3.1)
Some remedies used during teething by mothers are harmful to children	108(48.0)*	47(20.9)	70(31.1)
Mismanagement during teething can cause the death of a child	174(77.3)*	39(17.3)	12(5.3)

****Correct options***

4.4 Cultural Beliefs about Teething

Culturally, when diarrhea occurs during the teething period (78.7%) of respondents saw it as a sign of teething, it was getting rid of body impurities by (58.7%), (55.1%) of the respondents said the child was stretching to get taller and (34.2%) that the child is about to crawl. Majority (84.9%) believed that delayed teeth eruption implies that the child's teeth will last long, almost half (45.3%) believed that misfortune may befall a family if a child is born with a tooth while (33.3%) have the belief that early eruption of teeth is a sign of intelligence in a child. Other beliefs that child looking at the mirror before tooth eruption causes delayed eruption, delayed tooth eruption implies that a child will live long and the gum should be incised for tooth to come out had 32.0%, 20.4% and 14.2% respectively.

Table 4.4.1: Respondents cultural belief about Teething

Cultural Beliefs	Frequency	Percent (%)
When diarrhea occurs, it is seen as:		
A sign of teething	177	78.7
Getting rid of body impurities	132	58.7
Stretching	124	55.1
Crawling	77	34.2
Delayed teeth eruption implies that a child's teeth will last long	191	84.9
Misfortune may befall a family if a child is born with a tooth	102	45.3
Early tooth eruption is a sign of intelligence in a child.	75	33.3
Child looking at the mirror before tooth eruption causes delayed eruption	72	32.0
Delayed tooth eruption implies that a child will live long	46	20.4
The gum should be incised for the tooth to come out	32	14.2

4.5 Respondents' Practices during Teething

Almost all the respondents (97.8%) said that their children had experienced teething problems before and (98.2%) do use some remedies for their children during this period. The remedies used by respondents were home based (97.3%) and hospital based (2.7%).

4.6 Types of Remedies used by Respondents during Teething.

Respondents identified some remedies they use for their children generally to manage teething signs and symptoms. More than two-third (84.9%) use teething syrup, tepid sponge (20.0%), teething toys (6.2%), analgesics (36.9%), teething powder (47.1%), herbal medication (36.4%), gum massage (1.3%), allow the child to bite on chilled object (0.9%) and allow bottle feeding (3.6%).

Table 4.6.1: Types of Remedies used by Respondents during Teething.

Remedies used	Frequency	Percent (%)
Teething syrups	191	84.9
Teething powder	106	47.1
Analgesics	83	36.9
Herbal medication	82	36.4
Tepid sponge	45	20
Teething toys	14	6.2
Allow bottle feeding	8	3.6
Gum massage	3	1.3
Allow the child to bite on chilled object	2	0.9

+***Multiple choices***

4.7 Management of Fever during Teething

For intervention used specifically to relief fever in infants during the teething period (49.3%) identified the use of paracetamol, tepid sponging (8.0%), teething syrup (59.1%), 7.1% go for herbal medicine while just 1.8% consult a physician.

Table 4.7.1: Intervention used by Respondents to Manage Fever during Teething

Interventions used	Frequency	Percent (%)
Teething syrup	133	59.1
Paracetamol	111	49.3
Tepid sponging	18	8.0
Herbal medicine	16	7.1
Consult a physician	4	1.8
Others	2	0.9

+ ***Multiple choices***

4.8 Management of Diarrhea during Teething

A total of (52.0%) of the respondents use Oral Rehydration Therapy for their children. However, (20.0%), (14.7%), (12.4%), (4.4%), (1.3%) and (0.9%) of the respondents said do not use anything for the child, antibiotics, consult a physician, increase fluid intake, do not feed the child, and reduce fluid intake respectively.

Table 4.8.1: Intervention used by Respondents to Manage Diarrhea during Teething

Interventions used for diarrhea	Frequency	Percent (%)
Oral rehydration therapy	117	52.0
Do not use anything for the child	45	20.0
Antibiotics	33	14.7
Consult a physician	28	12.4
Increase fluid intake	10	4.4
Do not feed the baby	3	1.3
Reduce fluid intake	2	0.9

+Multiple choices

4.9 Practice of Respondents during Management of Teething

Overall, majority of the respondents (75.4%) had poor practice, while (24.6%) had fair practice and none of the respondents had good practice when it comes to the management of a child during teething.

Table 4.9.1: Practice Distribution of Respondents during Management of Teething (N=225

Practice distribution	Frequency	Percent (%)
Poor (0-2)	169	75.4
Fair (3-6)	55	24.6
Total	**225**	**100.0**

4.10 Hypotheses Testing

Hypothesis One: There is no significant relationship between socio-demographic characteristics and treatment used by mothers during teething.

Fisher's Exact test analysis was used in testing this hypothesis to statistically test for significant relationship between respondents' socio-demographic characteristics and treatment used for children by mothers. Data showed that there was significant relationship between respondents' ethnic group and treatment used by mothers (x^2= 3.841, df =1, p<0.05). Therefore, the null hypothesis is rejected (Table 4.10a)

Hypothesis Two: There is no significant relationship between socio-demographic characteristics and knowledge of teething among mothers.

Fisher's Exact test analysis was used in testing this hypothesis to statistically test for significant relationship between socio-demographic characteristics and knowledge of teething among mothers. Data showed that there was a significant relationship between respondents' level of education, number of children and knowledge of teething among mothers. (x^2=394.626, df =8, p=<0.05) and (x^2=129.918, df=4, p=<0.05) respectively. Therefore, the null hypothesis is rejected (Table 4.10b & c)

Hypothesis Three: There is no significant association between socio-demographic characteristics and practice of teething management among mothers. Fisher's Exact test analysis was used in testing this hypothesis to statistically test for significant relationship between socio-demographic characteristics and practice of teething management among mothers. Data showed that there was a significant relationship between respondents' occupation and practice of teething management among mothers (x^2=5.991, df =6, p=<0.05) (Table 4.10d)

Table 4.10a: Relationship between Socio-demographic characteristics and treatment used by mothers during teething.

Respondents' Ethnic group	Remedies used		Total (%)	X^2	p-value
	Home (%)	Hospital (%)			
Yoruba	207(92.0)	3(1.3)	210(93.3)		
Igbo	12(5.3)	3(1.3)	15(6.7)	18.603	0.004**
Total	**219(97.3)**	**6(2.7)**	**225(100)**		

Statistically significant (P<0.05)

Table 4.10b: Relationship between Marital status and Respondents' Knowledge about Teething

Respondent's Level of Education	Level of Knowledge			Total (%)	X^2	p-value
	Poor (%)	Fair (%)	Good (%)			
No Formal Education	4 (1.8)	3(1.3)	0(0.0)	7(3.1)	20.474	0.035**
Primary Education	6(2.7)	29(12.9)	1(0.4)	36(16.0)		
Some Secondary Education	2(0.9)	22(9.8)	0(0.0)	24(10.7)		
Completed Secondary	12(5.3)	96(42.7)	2(0.9)	110(48.9)		
Tertiary Education	4(1.8)	40(17.8)	4(1.8)	48(21.3)		
Total	**28(12.4)**	**190(84.4)**	**7(3.1)**	**225(100)**		

Statistically significant(P<0.05)

Table 4.10c: Relationship between Parity and Respondent's Knowledge about Teething

Number of children	Level of Knowledge			Total (%)	X^2	p-value
	Poor (%)	Fair (%)	Good (%)			
1-3	20(8.9)	155(68.9)	6(2.7)	181(80.4)	20.341	0.014**
4-6	7(3.1)	35(15.6)	0(0.0)	42(18.7)		
>6	1(0.4)	0(0.0)	1(0.4)	2(0.8)		
Total	**28(12.4)**	**190(84.4)**	**7(3.1)**	**225(100)**		

Statistically significant (P<0.05)

Table 4.10d: Relationship between socio-demographic characteristics and practices of mothers during management of Teething

Respondents' Occupation	Use of any Remedy		Total (%)	X^2	p-value
	Yes (%)	No (%)			
Artisan	56(24.9)	1(0.4)	57(25.3)		
Petty trader	95(42.2)	1(0.4)	96(42.7)		
Housewife	5(2.2)	1(0.4)	6(2.7)		
Unemployed	2(0.9)	0(0.0)	2(0.9)	16.618	0.041**
Civil servant	5(2.2)	1(0.4)	6(2.7)		
Professionals	57(25.3)	0(0.0)	57(25.3)		
Others	1(0.4)	0(0.0)	1(0.4)		
Total	**221(98.2)**	**4(1.8)**	**225(100)**		

***** Statistically significant (P<0.05)***

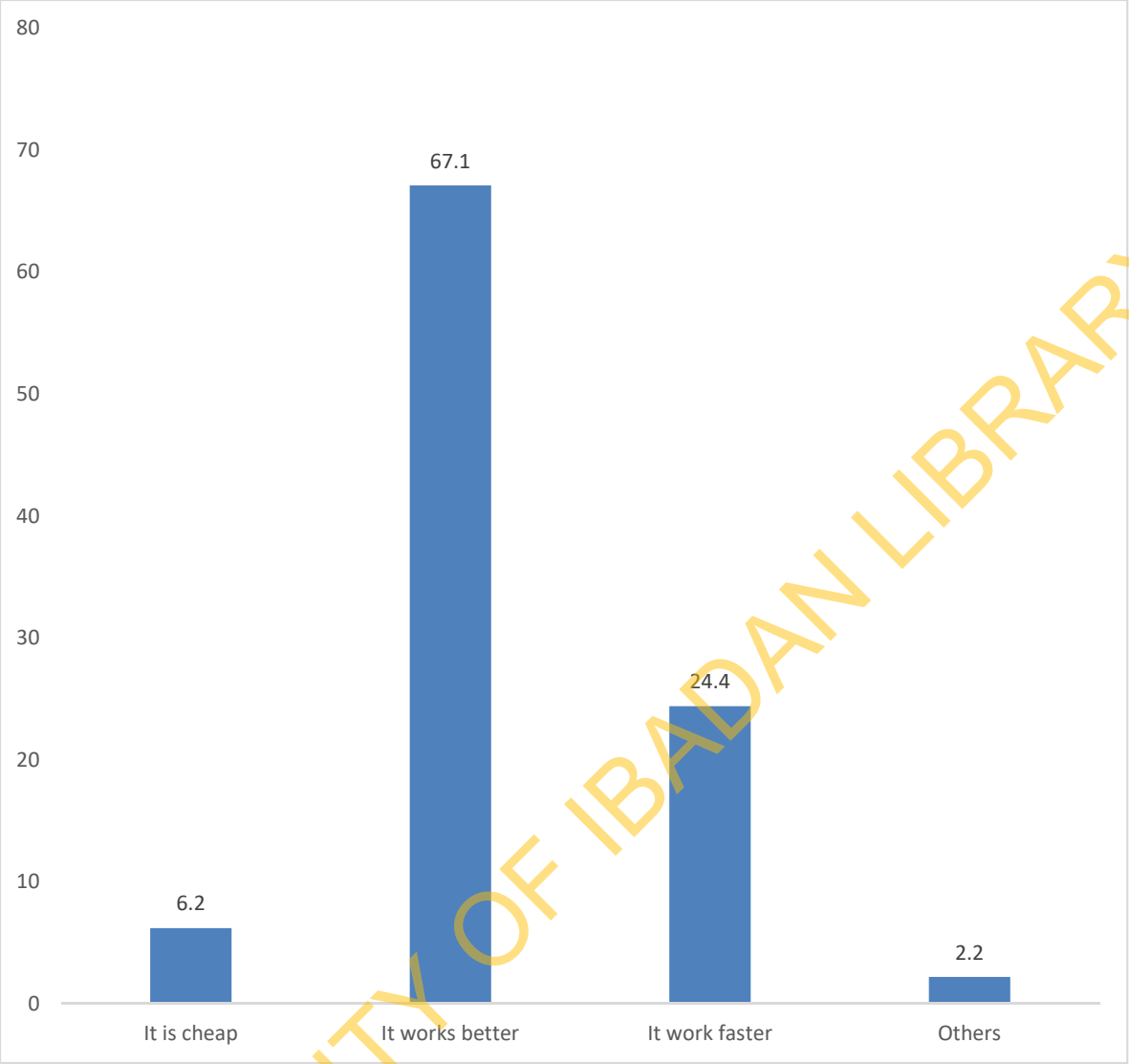


Figure 4.2: Reasons why some Home Remedies are preferred.

4.11 Results of Focus Group Discussion

4.11.1 Participants' Response on what they understand about Teething.

Most participants of the Focus Group Discussion did not really know the definition of teething though they had the idea of what it might entail. For example, one of the participants said "*A child prepares before hand for tooth eruption, you will just be surprised to see teeth in the mouth thereafter*". A participant also said, "*When you are breastfeeding, the child will refuse it because it will be too hot in the mouth of the child; then you will know it is teething*". Another person said "*What I know about teething is that the child will start vomiting, stooling, some children vomit and have high grade fever. It brings a lot of things along*".

For the signs and symptoms of teething, most of the participants mentioned fever, diarrhea, cough, vomiting, measles and weakness. A participant said, "*you will know that the fever is due to teething when you touch the fore-head, and it is hot because all the teeth that emerge in the mouth comes from the head*". Another mother said, "*Some children will have fever or have constant diarrhea before bringing out a tooth*". One of the participants also said, "*You do not know the signs and symptoms that will emerge maybe cough, catarrh or measles".*

4.11.2 Participants' Response to dangers associated with Teething.

The so called "teething" in the context of the participants have some dangers associated with it if a child is not well managed during this period. Some of these were highlighted by the participants "*the danger is that you should not just watch the child like that, take the child either to the hospital or to the herb seller*". Another participant said "*when fever is too much, the blood level of the child will be low. It usually sucks their blood*". One of the mothers that participated also said "*when a child is having fever and vomiting and also having diarrhea, if the mothers does not monitor the child, the child can die from there".*

4.11.3 Participants' Response on what they use for their child during Teething.

Majority of the participants use analgesics, teething syrup and herbal or local medications for their children during teething. One of the participants said "*Funmilayo is a drug but produced in form of an herb, the chemist sells it and it cures a child during teething because it works for everything*". Another mother said, "*Some children come up with some signs that will make you use what Yoruba*

call ebe so that the teething process will not affect the child too much". One of them said "*you can take care of children during this time with drugs, herbs, herbal soap (ose eyin) and what Yoruba call ebe which works for fever*". They however use these remedies because of different reasons. One of the participants said, "*When you get to the chemist, they will tell you to buy funmilayo that it works perfectly well*". Another participant said, "*We use all these remedies because we were told to use everything".*

4.11.4 Participants' Response on which of the Remedies work

Some of the participants' belief that it is the herbal medication that works while a few also belief in the efficacy of teething syrups and hospital-based intervention. A participant said, "*Until you take some children to herbal medicine store, they will not be alright*". Another participant said, "*A steel material is usually tied on the waist of some children by herb sellers called 'monkele', infact till a child grow all the teeth you will not know*". Another mother said, "*It is better for one to take the child to the hospital where the child was delivered, and they will prescribe medication for the mother".*

4.11.5 Cultural beliefs Participants' associated with Teething.

Some of the participants of the Focus Group Discussion ascribed some cultural beliefs to teething. One of them said that "*when a child is stooling while teething, you cannot stop the stool, they said we should not stop it because the child is stooling away body impurities*". Another participant said, "*a child that grows the upper teeth first should not bite someone, so when noticed early, you can use traditional medicine to stop the growth*". Another mothers said, "*You can use your thumb to rub the ground and then use it to rub the upper gum so as to push in the upper tooth*".

4.11.6 Participants' belief about Breastfeeding during Teething

Among what was discussed was the impotance of breastfeeding during teething and most of the participants have different responses to how important breasfeeding is during the teething period. One of the participants said, "*Mothers should breastfeed so that the baby will not cry in order not to aggravate the fever*". Another participant said, "*a child that is not eating will definitely be breastfed that period, one must not do without breastfeeding that period*". One of the participants also said, "*One should beastfeed very well during this period because it makes the child intelligent*".

4.11.7 Participants' advice for other Mothers of Under-Two on how to manage a Child during Teething

One of the participants said, "*One must take care of a child if not the money one is avoiding will eventually be spent and one should monitor the child well*". Another mother said, "*When it is raining, the mother should wear the child soaks, cardigan and put cap on the head to cover the ears of the child so that cold, catarrh and cough will be limited during teething*". Another participant said, "*My own advice is that the mother should not allow the signs and symptoms to persist for too long in a child before they place on medication or monitor them*". A participant also pointed out that "*diarrhea is not good; it is not that the child is getting rid of body impurities. If a child is having diarrhea, the mother should give ORS"*.

CHAPTER FIVE

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Discussion

5.1.1 Respondents socio-demographic characteristics

The study recruited two hundred and twenty-five mothers of under-two with a mean age of 28.8±5.9). Respondents were aged 15-45 years and the age group 25-34 years accounted for a little above half of the respondents.

The respondents were predominantly of Yoruba ethnicity, which can be attributed to the geographical location of the study site which is Yoruba dominated area (Ibadan, Oyo state). There were six (6) identified jobs offered by the respondents, however, petty trading was the most predominant, this is culturally believed and accepted to be dominated mostly by women, this is an attributable factor to the findings in this study.

Almost half of respondents were found to have completed secondary school education. And most of the respondents' monthly income ranges from 2,000-15,000, this is also believed to have influenced their decision on the type of management to give a child during teething. Most of the respondents were married with a little above half of them having between 1-2 children.

5.1.2 Respondents' Knowledge of Teething

Knowledge about the definition of teething was particularly good in this study with greater than two-thirds of the respondents getting the correct definition. Over eighty percent of the respondents agreed that a baby's teeth start to erupt around 4-10 months of age and well over ninety percent believed that the first to appear commonly are the lower central incisors. This was greater than what was gotten in a study done by Indira et al, 2016.

Most of the respondents got information on teething and its symptoms from their parents followed by grandparents. This is expected as the African society is a communal one. The findings were higher than the one gotten and documented by Opeodu and Denloye, 2014, where almost half got information from their parents.

The knowledge about the symptoms associated with teething was diverse, with over sixty percent of the respondent attributing fever, diarrhea, cough, vomiting and catarrh to teething. Almost fifty percent attributed teething with rashes and convulsion was also taught to be a sign of teething by almost twenty percent of the respondents. The commonest problems reported in this study were fever and diarrhea which have high rates as reported by Paul and Fatoki in 2005. Study conducted in Ethiopia also reported an extremely high percent of the respondents attributed diarrhea to teething (Getaneh et al, 2018). Another study in Lagos State by Uti et al in 2005 found 64.0% to associate diarrhea to teething. The plausible explanation for this could be because of the diverse sources of information such as parents, grandparents, and friends with just a little above half getting information from health provider or clinic.

Almost all the mothers believed that those signs and symptoms are due to teething and not coincidental. The probable reason for this could be also because there are no sufficient and efficient teaching schedules on teething for parents. Well over two-third of the respondents said their children had teething problems as against just two percent of mothers in an Australian study that believed that teething causes no problems in a study conducted by Wake et al, (2001); Plutzer et al, 2012.

Just 3.1% of respondents had good knowledge about teething in this study and this was lesser than 16.8% that was obtained in a study conduted in Egypt by Abdel et al, 2017. Respondents further showed fair knowledge as almost forty-seven percent of them agreeing that diarrhea is not a normal occurrence during teething as against 44.8% who claimed that they got to know of their children tooth eruption as a result of loose stool in a study conducted by Opeodu, 2013.

Many parents ascribe numerous infant symptoms to teething despite little evidence to support such attribution. In this study, almost two-third of the respondents attributed diarrhea during the teething period to the child getting rid of body impurities, stretching and over seventy percent said diarrhea is a sign of teething. Strong maternal false beliefs which are not evidenced based are likely to linger except they are documented, and adequate attempts are taken to correct them because infections like diarrheal diseases contribute immensely to under-five mortality in developing countries of which Nigeria is part of.

5.1.3 Respondents' Practice during Management of Teething

This study revealed that most mothers use medications such as teething syrups, analgesics (paracetamol), teething powder and herbal remedies to relieve supposed teething symptoms of their infants; a finding like the report gotten from Adam et al in a study conducted in Benin. Though symptoms like fever and diarrhea were attributed to teething by mothers in this study. However, not up to half of the respondents use antipyretics and just eight percent tepid sponge the infants when having fever. This was contrary to the applaudable (100% and 72.1%) for use of antipyretics and tepid sponging respectively to relief fever during the teething process that was gotten by Adam et al, 2015 in Benin.

However, the indiscriminate use of teething syrups because of its harmful side effect (methaglobinaemia) and use of herbal remedies should be greatly discouraged. Symptoms therefore associated with teething should be properly examined, diagnosed and appropriate management instituted to reduce infant morbidity and mortality. Just 1.8% of the respondents said they will consult a physician when a child is running fever dring the teething process as against 91.5% in a study done in Saudi Arabia by Elbur et al, 2015 and the 65.3% recorded by Getanah et al, 2018. This is a very wide gap, and this could be very dangerous because this could interfere with the prompt diagnosis and management of a variety of childhood illnesses.

A little above half of respondents in this study use ORS for management of their children when having diarrhea during the teething process. This value was lesser to the one obtained by Adam et al, 2015. Since it is a key household life-saving intervention that could lead to reduction in infant mortality, it then shows that more emphasis should be made on the use of ORS by healthcare providers to mothers at their clinic or immunization visits and at child welfare clinics.

Of all respondents the 14.7% of them give antibiotics while 20.0% of them said nothing should be given to stop diarrhea during the teething process. The probable reason for this might be because many customs and superstitions still linger on among people in all socio-economic classes, age grops, educational levels and ethnic group believing that diarrhea de to teething should not be stopped to avoid blotted abdomen. The general practice during management of teething from this study was poor with a score of 0-2 from a possible 9 score ptting the percentage at 75.4%.

5.2 Focus Group Discussion

The FGD which was analysed using the thematic and transcribed exposed more of the belief of respondents that there is an existing relationship between when a child wants to bring out a tooth and some signs and symptoms. The following statements are by some of the partcitipants "*if a child wants to grow teeth, the child will start showing some signs such as fever and also vomit all the food"*. "*There are some children that use diarrhea to grow teeth*". Another mother said, "*what I know about teething is that the child will start vomiting, stooling. It brings different things along and all these signs and symptoms have to occur because they are orchestrated by God*". Another mother said "*some children do have measles as well becase they want to grow teeth*".

Most participants agreed that there are remedies mothers use for their children during the teething period. Some of these were stated by the participants "*drugs to buy for the child like bonabeb, babyrex and fnmilayo which is an herbal concoction that works for teething*". Another mother said that "*If a child is having fever, the local teething soap will relieve the child*". One of the mothers also made a statement that says, "*Until you take some children to the herbal medicine store for them to be given herbs, they will not be alright*". Another said, "*If the child becomes weak during this period, just give paracetamol and shower for the child".*

To buttress the local remedies used by mothers, one of the participants said "*they do tie a steel material on the wrist of some children, it is sold by the herbs sellers. It is called (monkele) but it is a steel. In fact, till a child cut all the teeth you will not know*". This same participant said "*there is another called (kebekebe) which is tied to a child's waist. I used it for my child very well, but it did not work so I removed it and she brought out teeth at a year"*. Another participant said, "*The herbs sellers use to work on the (monkele), you cannot know what they have done on it, in fact you might think it is a jewelry but it has been worked on traditionally to ease teething process for children"*.

Some of the participants however believed that nothing should be given to a child to stop diarrhea during the teething process. A participant said "*Poo while teething is different from a normal poo, if some children poo during teething, it will be very offensive and irritating, and you must not stop it*". Another participant said, "*when a child is stooling while teething you cannot stop it because they told us not to stop it because the child is stooling away body impurities*". The probable reason

for this might be because many customs and superstitions still linger on among people in all socio-economic classes, age groups and ethnic group. But one of the participants had a contrary opinion to this "*diarrhea is not good. It is not that the child is getting rid of body impurities, it is not good. If a child is having diarrhea, one will give the child medication. One can give ORS for the child, which is what we use".*

Participants mentioned some dangers of poor management during this period and this are some of their responses; "*A child can be having diarrhea and lose all stamina and die*". Another mother said "*Convulsion cold be a danger of high fever in children at the time*". A participant also said "*If you don't take care of the child on time maybe when stooling and yo ignore it, if the child inhales the odour of the poo, it can cause damage in the body*". One of the mothers also responded that "*When fever is too much, the blood level of the child will be low*".

5.3 Implication of the Study for Health Promotion and Education

Teething which is suppose to be a normal development milestone in the life of a child has been attributed to so many childhood illnesses (Grant, 2002). This study reveals that most mothers use teething syrups for their children with lack of the knowledge of the side effects of these drugs on the children. This is an indication that more effort should be made in creating not just awareness but also health education should be explored which will make mothers more knowledgeable about teething and its management in order to make informed decision in improving the health of a child during the teething process and keeping the child safe.

Findings from this study reveals that most of these mothers get information about teething from their own mother. There is therefore need for advocacy to educate grandmothers to do away with cultural beliefs that can cause the morbidity or mortality of a child during the teething period.

5.4 Conculsion

This study reviewed that mothers' beliefs about teething in infancy irrespective of their economic class and educational status encourage the use of teething as a ready explanation for childhood diseases. They attributed several symptoms which could be due to other causes to teething.This may underplay the need for prompt medical diagnosis and treatment in cases of childhood fevers and diarrheal diseases and this can be detrimental to the health and survival of the child(ren).

Respondents showed fair knowledge after knowing about teething mainly from parents, however knowing about teething did not translate to high level of practice. This study also revealed poor management practice by mothers during teething as there was a relationship between marital status of respondents and occupation (petty trading) with the management practices.

The study revealed a significant relationship between socio-demographic characteristics and treatment used by mothers during teething and also pointed out the fact that a relationship exists between income, parity and the knowledge mothers have about teething. This study also divulged that majority of mothers got information about teething from their paents, followed by health facility and then grandparents.

5.5 Recommendations

The following are recommended based on the findings of this study:

1. There is great need to adequately educate parents, caregivers, and the general public to help correct the false beliefs attributed to teething and foster prompt health seeking behavior.
2. Mothers should also be informed about appropriate measures to take when mild symptoms are noticed as well as recognition of danger signs and symptoms of common childhood illnesses which would necessitate presentation at a health facility.
3. Women of reproductive age in general should be targeted with health promotion messages that will ensure appropriate and prompt intervention for symptomatic teething child.
4. There is need for healthcare providers to intensify teaching on the facts related to teething, specifically those related to teething pain relieving practices during child welfare clinics.
5. To reach a larger audience and create more awarenesss, the mass media should be utilized to disseminate evidence-based information on teething in infants.

REFERENCES

Adam, Y.V. and Iyoha, B.A. 2019. Beliefs and behaviours of mothers attending well baby clinics in Benin City, Nigeria: African Journal of Medical and Health Sciences; 14:8-12

Adbel, E. and Abusaad, F.S. 2017. Mothers' teething beliefs and treatment practices in Mansoura, Egypt: A cross sectional study; 29(4):144-148.

Adimorah, G.N., Ubesie, A.C. and Chinawa, J.M. 2011. Mothers' beliefs about infant teething in Enugu, South East Nigeria: A cross sectional study; 4:228.

Alli, R.A. 2019. Teething Symptoms and Remedies. Reviewed.

Aliyu, I., Adewale, A. and Teslim, O.L. 2015. Medical Journal of Dr D.Y. Patil University; 8(2):144-148

Al-Jasser, N.M. 2003. Time of eruption of primary dentition in children from Saudi Arabia. The journal of contemporary dental practice; 4(3):65-75.

Anderson, J.E. 2004. 'Nothing but the tooth'. Dispelling myths about teething. Contemporary Pediatrics; 21:75-80.

Ashley, M.P. 2001. It's only teething. A report of myths and modern approaches to teething; 191:4-8.

Avery, J.K. and Micheal, L.R. 2003. Essentials for Orthodontic Practice. 1st edition; P. 142.

Bahl, R. 2018. Why the FDA Is Warning Parents Against Using Teething Meds.

Bankole, O.O., Aderinokun, G.A. and Denloye, O.O. 2005. Evaluation of a photo-poster on nurses' perceptions of teething problems in South-western Nigeria. Public Health; 119:276-282.

Baykan, Z., Sahin, L., Bayazova, U. and Ozcakar, B. 2004. Experience of Turkish parents about their infant's teething. Child Care Health Development; 30:331-6.

Bhavneet, K. 2012. Awareness of parents towards teething. Bangladesh J. Med. Sci; 11(1),40-43.

Bhattacharjee, D. 2017. Baby Teeth Order of Appearance.

Celia, S. 2018. Everything you need to know about teething. Today's parent.com.

Center for Disease Control, 2015. Diarrhea: Common Illness, Global Killer

Cranwicks, N. 2001. Over the counter medication in children: friends or foe? Australian prescriber; 24(6):149-151.

Dally, A. 1996. The Lancet and the gum-lancet: 400 years of teething babies. The lancet 348; (9043): 1710-1.

Dally, A. 1997. The rise and fall of pink disease. Social History of Medicine; 10 (2): 291-304.

Denloye, O. and Bankole, O.O. 2005. Teething myths among community health officers. Odontostomatol Trop; 28:19-22.

Elbur, A.I., Yusuf, M.A. and Abdallah, M.A. 2015. Parental knowledge and practices on infant teething, Taif, Saudi Arabia

Ene-Obong, H.N., Iroegbu, C.U. and Uwaegbute, A.C. 2000. Perceived causes and management of diarrhoea in young children by market women in Enugu State, Nigeria. J Health Popul Nutr; 18:97-102.

Erica, R. 2018. Stages of teething for toddlers.

Getaneh, A., Derseh, F., Abreha, M. and Yirtaw, T. 2018. Misconception and Traditional Practices towards Infant Teething Symptoms among Mothers in Southwest Ethiopia; 18:159

Grant, T.M. and Grant, M.M. 2002. Teething troubles. University of Dundee, United Kingdom: A cross sectional study; 192(5):251-5

Gridlestone, S.P. 2019. Stages of Teething in Babies and Children.

Ibrahim, A., Ashimi, A. and Lawal, O. 2015. Teething myths among nursing mothers in North-Western Nigeria; (8): 144-148.

Ige, O.O. and Olubukola, P.B., 2013. Teething myths among nursing mothers in a Nigerian community. Niger Med J.

Indira, M.D., Nandlal, B. and Girish, M.S. 2016. Perception about teething among the nursing mothers of Mysore. Journal of International Medicine and Dentistry; 3(2):119-125

Jaber, L., Cohen, I.J. and Mor, A. 1992. Fever associated with teething. Archives of disease in childhood; 67:234.

Macknin, M.L., Piedmonte, M., Jacobs, J. and Skibinski, C. 2000. Symptoms associated with infant teething: A prospective study. Peadiatrics.

Markman, L. 2009. Teething facts and fiction. Pediatrics in Review; 30(8):59-64.

Mayo Clinic, 2010. Infant and toddler health. Retrieved

Mayo Clinic, 2018. Infant and toddler health.

Merch, M.D. 2018. News Letter on Teething. MedicineNet.

Nsirimobu, I.P. and Olarewaju, P.F. 2014. Mothers perception of teething in children. The Nigerian Health Journal; Vol. 14, No 1.

Olarewaju, I. and Popoola, B. 2013. Teething myths among nursing mothers in Nigerian community; 54(2):104-110.

Opeodu, O.I., Denloye, O.O. 2014. the use of medication as a preemptive strategy in teething children in a Nigerian community.

Owais, A.I., Zawaideh, F. and Bataineh, O. 2010. Challenging parents' myths regarding their children's teething. Int J Dent Hyg; 8:28-34.

Paul, N.I. and Fatoki, O.P. 2014. Mothers Perception of Teething in Children. Niger J Heal; 14:1-5.

Plutzer, K., Spencer, A.J. and Keirse, M.J. 2012. How first time mothers perceive and deal with teething symptoms; 38(2):292-299

Roger, L.C. and David, L.B. 1974. 'A review of the chronology of eruption of deciduous teeth'. The journal of the American Dental Association. Retrieved 1 June 2017.

Sarrell, E.M., Horev, Z. and Cohen, H.A. 2005. Parent's and medical personnel's beliefs about infant teething.

Shapiro, N. 2018. Dispelling health myths, facts, exaggeration and misconception.

Signs and symptoms of primary tooth eruption. 2016. A meta-analysis. Pediatrics.

Smitherman, L.C., Janisse, J. and Mathur, A. 2005. The use of folk remedies among children in an urban black community: Remedies for fever, colic, and teething. Pediatrics; 115:e297-304.

Steinhauer, W., King, D.L., Gracia-Godoy, F. and Elkins, C.J. 1992. 'Herpetic gingivostomatitis and teething difficulty in infants'. Pediatric Dentistry. 14(2): 82-5.

Swann, I.L. 2010. Teething complications, a persisting misconception; 55(639): 24-25.

Teething overview. WebMD. 2010.

The teething process. 2010. Kids Health Portal.

Tighe, M. and Roe, M.F. 2007. Does a teething child need serious illness excluding? Arch Dis Child; 92:266-8.

Uti, O.G., Sayage, K.O. and Ekanem, E.E. 2005. Maternal beliefs about infant teething. Journal of Commnity Medicine and Primary Care; (17): 61-4

Wake, M., Hesketh, K. and Lucas, J. 2000. Teething and tooth eruption in infants: a cohort study. Pediatrics. PubMed.

INFORMED CONSENT FORM

IRB Research approval number: AD 13/479/1295

This approval will lapse on:

Title of research: Knowledge, Attitude and Management Practices of Mothers of under-two during teething in Ibadan North Local Government Area Oyo state

Name of researcher: This study is being conducted by OKEDELE, Timilehin Elizabeth of the Department of Health Promotion and Education, University of Ibadan.

Purpose of research: The purpose of this research is to investigate the Knowledge, Attitude and Practices of Mothers of under-two during Management of teething in Ibadan North Local Government Area Oyo state

Procedure of reaearch: The study will use a quantitative method (Questionnaire) and a qualitative method (Focus Group Discussion) to elicit information from the participants. A total of 225 participants will be recruited into the study and selection of study participants will be done by multistage sampling technique. Only those who met the inclusion criteria will be considered.

Expected duration of research and participants' involvement: Each research paeticipant is expected to answer the questions in the questionnaire within seven to ten minutes of administration by the researcher. The research work is expected to last for two months.

Risk: This research will not cause any harm. It will not involve utilization of any invasive material or collection of biological samples.

Cost to the participant: participation in this research will not have any financial cost but will require only ten (10) minutes of participants' time.

Benefit: There is no direct benefit from this study but the findings would be of great value in the design of interventions at promoting knowledge, attitude and practices of mothers of under-two during management of teething in Ibadan North Local Government Area Oyo state

Confidentiality: All identifiers will be removed from the questionnaire and confidentiality will be ensured through protection of data collected from participants.

Volntariness: Your participation in this research is totally voluntary.

Alternatives to Participation: If you choose not to participate in the study, yo will be exempted. However, your utmost cooperation will be highly appreciated.

Consequences of participants' decision to withdraw from research and procedure for orderly termination of participation: You can choose to withdraw from the research at any time. However, please note that some of the information provided by you before withdrawal may be modified or sed in reports.

What happens to research participants and communities when the research is over?

The outcome of this research will be disseminated accordingly.

Any apparent of potential conflict of interest?

There is no conflict of interest n this study.

Statement of person obtaining informed consent

I have fully explained this research to _____ and have given sufficient information, including the risks and benefits, to make an informed decision.

DATE: _____ SIGNATURE: _____

NAME: _____

Statement of person giving informed consent

I have read the description of the research and I fully understand the processes involved in the research. I understand that my participation is voluntary. I know enough about the purpose, methods, risks and benefits of the research study to judge that I want to take part in it. I understand that I may freely stop being part of this study at any time. I have received a copy of this consent form and additional information sheet to keep for myself.

DATE: _____ SIGNATURE: _____

NAME: _____

Detailed contact information including contact address, telephone, fax, email and any other contact information of researcher, institution HREC and head of the institution.

This research has been approved by the Oyo State Ethical Review Committee and the chairman of this committee can be contacted at Ministry of Health Secretariate, Ibadan.

In addition, if yo have any question about your participation in this research, you can contact the principal investigator,

Name: _____ Department: _____

Phone: _____ Email: _____

PLEASE KEEP A COPY OF THE SIGNED INFORMED CONSENT

Dear respondent, I am a post graduate researcher or student at the department of Health Promotion and Education, faculty of Public Health, College of Medicine, University of Ibadan. The purpose of this study is to gather information about the "**Knowledge, Attitude and Management Practices of Mothers of under-two during Teething in Ibadan North Local Government Area Oyo State"** and I hereby request your voluntary participation. The resltsbprovided from thius study will help to improve knowledge on the above topic. All information will be treated with utmost confidentiality. Please you are required to provide honest and accurate information.

Kindly indicate your willingness to participate by ticking the box below.

Would you like to participate?

YES _____ NO_____

Signature and date_____

SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTICS

Kindly respond appropriately to the following by marking or writing as appropriate in the space provided.

1. What is your current age in years? _____ **(put actual number)**
2. Ethnicity/Language? 1. Yoruba [ ] 2.Hausa [ ] 3. Igbo [ ] 4.Others (Specify)_____

3. Marital Status? 1. Single [ ] 2. Married [ ] 3. Divorced [ ] 4.Separated [ ] 5.Widow [ ]
4. Educational level: 1. No formal education [ ] 2. Primary education [ ] 3. Qur'anic education [ ] 4. Some secondary education [ ] 5. Completed secondary education [ ] 6. Tertiary education [ ]
5. What do you do for a living?: 1. Artisan [ ] 2. Petty trading [ ] 3.House wife [ ] 4.Unemployed [ ] 5.Civil Servant [ ] 6. Professionals [ ] 7.Others (specify)_____
6. On average how much do you earn monthly? _____ **(put actual number)**
7. How many children do you have? _____ **(put actual number)**
8. What is the age of your youngest child **(Put age in months)**? ___ _____
9. When did your child bring out the first tooth? 1. 4-6 months [ ] 2. 7-9 months [ ] 3.10-12 months [ ]

SECTION B: KNOWLEDGE ABOUT TEETHING

Instruction: Please give correct answers for the questions below.

10. Teething is the coming out of the first tooth 1.Yes [ ] 2. No [ ]
11. Teething describes permanent tooth eruption in children 1. Yes [ ] 2. No [ )
12. Teething is a normal physiological process and so it is painless 1.Yes [ ] 2. No [ ]
13. The process of teething is painful 1. Yes [ ] 2. No [ ]
14. Baby's teeth start to erupts around 4-10 months 1. Yes [ ] 2. No [ ]
15. The first teeth to first appear in most infant is the lower central incisors 1.Yes [ ] 2. No [ ]
16. The total number of milk teeth are 24 1. Yes [ ] 2. No [ ]
17. The eruption of teeth is complete at approximately 24 months 1. Yes [ ] 2. No [ ]
18. Teething causes high grade fever 1. Yes [ ] 2. No [ ]
19. Teething causes diarrhea 1= Yes 2= No
20. Symptoms seen during teething is due to tooth eruption 1= Yes 2=No
21. Symptoms seen during tooth eruption are coincidental 1= Yes 2= No
22. What are the sources of information about teething available to you? **(Tick [√] all mentioned)**

1. Parents [ ] 2.Health provider/clinic [ ] 3. The Internet [ ] 4. Social media [ ] 5. Friends [ ] 6. Radio [ ] 7. Television [ ] 8. Grandparents [ ]

23. What are the signs and symptoms of teething?

SN	Signs of Teething	Yes	No	SN	Signs of Teething	Yes	No
i	Fever			Ix	Increased salivating		
ii	Diarrhea			X	Vomiting		
iii	Restlessness			Xi	Convulsion		
iv	Ear infection			Xii	Rashes		
v	Loss of appetite			Xiii	Running nose		
vi	Gingival swelling			Xiv	Weight Loss		
vii	Redness of the gum			Xv	Boils		
viii	Cough						

SECTION C: ATTITUDE TOWARDS TEETHING

Instruction: Kindly indicate if you agree, undecided or disagree with the following statements

SN	Statements about Teething	Agreed	Undecided	Disagree
24.	Teething has nothing to do with general body disorder			
25.	Teething problems begin before teeth comes out			
26.	Teething problems begin as the tooth comes out			
27.	Teething problems end after the appearance of the first tooth.			
28.	Teething problems end after the appearances of all the milk teeth			
29.	Diarrhea is not a normal occurrence during teething			
30.	Fever is a normal occurrence during teething			
31.	Mothers use some remedies for their children during teething			
32.	Some remedies used during teething by mothers are harmful to children			
33.	Mismanagement during teething can cause the death of a child			

SECTION D: CULTURAL BELIEFS TOWARDS TEETHING

Instruction: Kindly answer the following as truthfully as possible.

34. When diarrhea occurs, it is seen as a way of

Getting rid body of impurities1. Yes [ ] 2. No [ ]

A sign of teething 1. Yes [ ] 2. No [ ]

Stretching 1. Yes [ ] 2. No [ ]

Crawling 1. Yes [ ] 2. No [ ]

Child looking at the mirror before tooth eruption causes delayed eruption

1. Yes [ ] 2. No [ ]

35. Early tooth eruption is a sign of intelligence in a child 1. Yes [ ] 2. No [ ]

36. Misfortune may befall a family if child is born with a tooth 1.Yes [ ] 2. No [ ]

37. The gum should be incised for the tooth to have a passage 1.Yes [ ] 2. No [ ]

38. Delayed teeth eruption implies that a child's teeth will last long1. Yes [ ] 2. No [ ]

39. Delayed tooth eruption implies that a child will live long 1. Yes [ ] 2. No [ ]

SECTION E: PRACTICES DURING MANAGEMENT OF TEETHING

Instruction: Kindly go through the questions given below and choose the correct answers.

40. Have any of your children ever had teething problem? 1. Yes [ ] 2. No [ ]

41. During the teething stages of any of your children, did you use any remedy? 1. Yes [ ] 2. No [ ]

If yes,

42. Which of the remedies did you use? 1. Home remedies [ ] 2. Hospital based remedies [ ]

43. What are the various home remedies used? (**Tick [√] all mentioned)** 1. Teething syrups [ ] 2. Tepid sponge [ ] 3. Teething toys [ ] 4. Analgesics [ ] 5. Teething powder [ ] 6.Herbal medication [ ] 7. Gum Massage [ ] 8. Allow the child to bite on a chilled object [ ] 9.Allow bottle feeding [ ]

44. Why are home remedies preferred? 1. It is cheap [ ] 2.It works better [ ] 3.It works faster [ ] 4. It saves time [ ] 5. Others specify_____

45. Which of the intervention do you use to relieve fever in infants during teething1.Paracetamol[ ]2. Tepid sponging [ ] 3.Bonabeb [ ] 4. Herbal medicine [ ] 5. Consult a physician [ ] 6.Others specify_____

46. Intervention for diarrhea management during teething 1. Oral rehydration therapy [ ] 2. Antibiotics [ ] 3. Reduced fluid intake [ ] 4. Increase fluid intake [ ] 5. Do not feed the child at all [ ] 6. Consult a physician [ ] 7. Others specify_____

THANK YOU FOR YOUR TIME

FOCUS GROUP DISCUSSION GUIDE

Knowledge, attitude and Management Practices of mothers of Under-Two during teething in Ibadan North Local Government Area of Oyo State

Introduction: Greetings, I am Okedele, Timilehin Elizabeth from the department of Health Promotion and Education, College of Medicine, University of Ibadan. Thank you for partaking in this discussion. We would like to discuss Knowledge, attitude and Management Practices of

mothers of under-two during teething in Ibadan North LGA, Oyo State. We would be asking you questions about your thoughts, experiences and perception to help develop ways to improve child health in this community. Your participation is completely voluntary and there is no penalty for refusing to participate. Your refusal to participate will not affect you in any way. You may decide to stop your participation at any time, in the course of the discussion. The discussion will last 30-40 minutes and the responses will be recorded with the audio digital recorder because we don't want to mix out all the valuable information that you will provide.

Can we continue the discussion? 1. Yes 2. No

Questions:

1. Let's start the discussion by talking about what teething is. What do you understand by teething?
- Please can you explain stage of teething?
- What are signs and symptoms of teething?

2. What are the dangers associated with teething? Probe for dehydration, anemia due to fever; shock, etc

3. What are the things mothers use for a baby during teething? Probe for anti-biotic; herbs; Analgesic; teething necklace; teething power; give ORS; gum incision etc. Why do people use such substances for baby during teething? Have you ever regretted using any of these remedies?

4. Which of the remedies used worked and which ones did not work?
5. What are the cultural beliefs associated with teething? Probe for signs of growth; associated with bacteria; the baby need to shed weight; culturally what makes mothers identify that a child is teething?

6. What are the beliefs of mothers of under-two about breastfeeding during teething? Probe for how important breastfeeding is during teething.

7. What pieces of advice do you have for mothers of under-two on how to manage a child during teething? Probe for taking the child to hospital; use ORS for diarrhea during that period e.t.c

8. Are there any other information and experiences you would like to share with us on knowledge, attitude and practices of mothers of under-two during teething?

THANK THE PARTICIPANTS FOR THEIR TIME AND CONTRIBUTION

ÌWÉ IGBÀSẸ LỌ́WỌ́Ọ OLÙKÓPA

Ẹyin Olùkópa wa Owọn,

Mo jẹ́ akẹ̀ẹ́kọ́ làtí ile ìwé giga Yunifàsitìi tí Ile Ibadan, Koleeji tí onítọjú pélu òògùn, ní abala tí óhún rísí ètò ìlera àwọn ará ìlú ní eka tí àtí n rísí ètò nípa idanilẹkọọ ati igbega eto ilera, idi pataki ti mo fi n se ìwadìí lóríi ìmò, ìwòyè àti ìṣeṣí isakooso àwọn ìyá ọmọ tí ọjọ orí wọn kò tó ọdún méjì lásìkò ti àwọn ọmọ wọn bá n wu eyín ní Agbègbè Ìjọba Ìbílẹ Ìbàdàn North, Ìbàdàn Ìpínlẹ Oyo.

Ìwadìíi yìí yóó ṣe ìrànlọwọ́ fún ìjọba ati awọn asoofin eto ilera láti mọ àwọn ààyè tí ó nílò àtúnṣe lóríi àjọ tí ó n rísí eto ìtọjú ati isakooso wiwu eyin àwọn omode; síṣe iranlowo fun àwọn iya omode lorii àwọn ona ti wọn ngba lati se itọju won ní ọnà tí ó tọ.

Ẹ se àkíyèsí wípé kíkópa nínúu iwadi yìí jẹ́ tí èyí tí óti okàn yín wá, àti wípé ẹ le yẹra kuro nínúu ìwadìí yìí ní gbogbo ìgbà tí ó bá wù yín láìsí ìsòro kankan. Erongba iwadii yi ko ki n se lati fi ẹnikẹni se yeye lori idahun si iwadi re, sugbon idahun awọn apaapo eniyan. E jọwọ ema se ko oruko yin si ibikibi lori iwe ibeere yi nitoriwipe ati fi ohunka idanimọ si ara awọn iwe ibeere kookan lati dabobo idanimọ yin. Gbogbo àlàyé tí ẹba si se fún mi ninu iwadi yi ni yìí o wa ni ipamọ larin emi àtí ẹyìín, mi ko sini se afihan rẹ fún ẹnikẹni.

Kikopa yin ninu iwadi yii ṣe pataki pupọ nitoriwipe yi o ṣe iranlọwọ fun oluwadi lati mọ ìmò, ìwòyè àti ìṣeṣí isakooso àwọn ìyá ọmọ tí ọjọ orí wọn kò tó ọdún méjì lásìkò ti àwọn ọmọ wọn bá n wu eyín. Ẹ jọwọ ẹni lati ṣe akiyesi wipe ko si idahun ti o tọ tabi eyi ti kotọ ninu gbogbo idahun eyikeyi ti ẹba fi fi esi si awọn ibeere ti a ba bi yin. Didahun si awọn ibeere yi ko ni gbayin ni akoko pupọ, nitoriwipe ko ni gbayin ju ogun tabi ogbọn iseju lọ. Ki a to maa tẹ siwaju, o tunmọ siwipe ẹ ti fi aramọ lati kopa ninu iwadi yi pẹlu gbigba lati kopa ninu ifọrọwanilẹnuwo.

Ẹ jowo, ẹ se àlàyé tí o ba péye, ti o si je otito fún mi lori awọn ibeere wọn yi - eleyi se pataki pupọ.

ÌLÀNÀ ÌWÉ-ÌBÉÈRÈ

ÌMỌ́, ÌWÒYÈ ÀTI ÌṢẸṢÍ ISAKOOSO ÀWỌN ÌYÁ ỌMỌ TÍ ỌJỌ ORÍ WỌN KÒ TÓ ỌDÚN MÉJÌ LÁSÌKÒ TI ÀWỌN ỌMỌ WỌN BÁ N WU EYÍN NÍ AGBÈGBÈ ÌJỌBA ÌBÍLẸ ÌBÀDÀN NORTH, ÌBÀDÀN ÌPÍNLẸ ỌYO.

Ẹyin Olùkópa wa Owọn,

Mo jẹ́ akẹ̀ẹ́kọ́ làtí ile ìwé giga Yunifàsitìi tí Ile Ibadan, Koleeji tí onítọjú pélu òògùn, ní abala tí óhún rísí èto ìlera àwọn ará ìlú ẹka tí àtí n risi eto nípa idanilẹkọọ ati igbega eto ilera. Mo nse ìwadìí lórii ìmò, ìwòyè àti ìṣẹṣí isakooso àwọn ìyá ọmọ tí ọjọ orí wọn kò tó ọdún méjì lásìkò ti àwọn ọmọ wọn bá n wu eyín ní Agbègbè Ìjọba Ìbílẹ Ìbàdàn North, Ìbàdàn Ìpínlẹ Oyo.

ÌPÍN A (Alàkọ́kọ́): Àlàyé lori eto igbesiaye olùkópa (SOCIO-DEMOGRAPHIC

CHARACTERISTICS)

Ejowo e fesi ti o bojumu/baye si awon wonyi pelu sise amin tabi kiko n toba ye si aye ti a ti pese

1. Kini Ojo ori yin bayi _____ **(Fi onka re gangan si)**
2. Eya/Ede yin? 1. Yoruba [ ] 2.Hausa [ ] 3. Igbo [ ] 4.Awon miran(ni pato)
3. Ipo igbeyawo yin? 1. Apon [ ] 2. Mo ti se igbeyawo [ ] 3. Mo ti k'oko [ ] 4.A o si papo [ ] 5.Opo[ ]
4. Ipele eko yin: 1. Ko si eko algbafe [ ] 2. Eko alakobere [ ] 3. Eko kurani [ ] 4. Eko girama [ ] 5. Pari eko girama [ ] 6. Eko giga [ ]
5. Ise wo ni e nse? 1. Ise owo [ ] 2. Owo pepepe [ ] 3. Iyawo ile [ ] 4. Alainise [ ] 5.osise ijoba [ ] 6. Akosemose [ ] 7. Awon miran (ni pato)
6. Ni apapo, elo ni e n ri losoosu? _____ **(fi onka re gangan si)**
7. Omo melo ni e bi? _____ **(fi onka re gangan si)**
8. Kini ojo ori omo yin ti o kere ju **(ko ojo ori naa ni iye osu)**?
9. Ni igba wo ni omo yin hu eyin akoko? 1.Osu merin-mefa [ ] 2. Osu meje-mesan [ ] 3.Osu mewa-mejila [ ]

SECTION B: IMO NIPA EYIN HUHU

Instruction: Edakuni, e fun wa ni idahun ti o to si awon ibeere isale

10. Huhu eyin je jijade eyin akoko 1. Beeni[ ] 2. Beeko [ ]

11. Huhu eyin se apejuwe itujade eyin ayeraye ninu omo 1. Beeni [ ] 2. Beeko [ ]

12. Huhu eyin je deede liana iwulo atipe nitoribe ko ki n nira 1.Beeni [ ] 2. Beeko [ ]

13. Ilana huhu eyin ma n nira 1. Beeni [ ] 2. Beeko [ ]

14. Eyin omo-owo/ikoko bere si n tu jade ni bi osu merin-mewa 1. Beeni [ ] 2. Beeko [ ]

15. Eyin akoko ti o koko yo/han ninu opolopo ikoko ni insiso aringbungbun isale 1.Beeni [ ] 2. Beeko [ ]

16. Apapo onko awon eyin wara/eyin miliki ni 24 (merinlelogun) 1. Beeni [ ] 2. Beeko [ ]

17. Itu jade eyin ma npari si nkan bi osu merinlelogun 1. Beeni [ ] 2. Beeko [ ]

18. Wuwu eyin ma n fa iba ti o le gan 1. Beeni [ ] 2. Beeko [ ]

19. Wuwu eyin ma n fa igbegbuuru 1= Beeni 2= Beeko

20.Awon amin ti a ri ni igbati wuwu eyin waye latari itujade eyin ni 1= Beeni 2= Beeko

21. Awon amin ti a ri ni igba tie yin ntu jade kan se kon-ge ni 1= Beeni 2= Beeko

22. Ki ni awon orisin alaye/iwifun ti o wa fun yin nipa eyin wuwu? (**Tick [√] all mentioned)** 1. Parents [ ] 2. [ ] 3. Itakun agbaye [ ] 4.Iroyin igbalode [ ] 5. Awon ore [ ] 6. Redio [ ] 7. Telifison [ ] 8. Awon [ ]

23. Kini awon amin ati apeere eyin huhu?

SN	**Amin eyin huhu**	**Beeni**	**Beeko**	**SN**	**Amin eyin huhu**	**Beeni**	**Beeko**
i	Iba			Ix	Alekun ito wiwa		
ii	Igbe gbuuru			X	Eebi		
iii	Ainisinmi/wiriwiri			Xi	Giri		
iv	Ikolu/Akoran eti			Xii	Ara huruhuru		
v	Ipadanu ikudun onje			Xiii	Wiwa ikun nimu		
vi	Erigi wuwu			Xiv	Pipadanu iwon		
vii	Erigi pipon			Xv	Owo		
viii	Iko						

SECTION C: AWON IHUWASI LATARI EYIN HUHU

Instruction: Ejowo, e fihun ti e ba gba, ti e bati pinu tabi ti e o ba gba pelu awon alaye wonyi

SN	Awon alaye nipa eyin huhu	Mo gba	Mi o ti pinu	Mi o gba
24.	Eyin huhu o ni nkankan se pelu ki gbogbo ara o se rudurudu			
25.	Isoro eyin huhu bere siwaju ki eyin o to jade			
26.	Isoro eyin huhu bere bi eyin se n jade			
27.	Isoro eyin huhu pari leyin ti eyin akoko bati farahan			
28.	Isoro eyin huhu pari leyin ti gbogbo awon eyin omudun bati farahan tan			
29.	Igbegburu o kin se deede n to ye ko sele lasiko tabi nigbati eyin ba n hu			
30.	Iba o ki nse deede n to ye ko sele lasiko tabi nigbati eyin ba n hu			
31.	Awon iya maa nlo die ninu awon ogun fun awon omo won lasiko eyin huhu			
32.	Die ninu awon ogun ti awon iya ma nlo lasiko eyin huhu ma n pa awon omo lara			
33.	Isakoso buburu lasiko eyin huhu le sokunfa iku omo			

SECTION D: AWON ASA TI A GBAGBO LATARI EYIN HUHU

Instruction: Ejowo edahun awon wonyi bi o ti to ati bi o tiye.

34. Ti igbegburu ba waye, ari gege bi ona lati.

Se amukuro awon abawon kuro ninu ara 1. Beeni [ ] 2. Beeko [ ]

Sami huhu eyin 1. Beeni [ ] 2. Beeko [ ]

Ninaa 1. Beeni [ ] 2. Beeko [ ]

Irakoro tabi Rapala 1. Beeni [ ] 2. Beeko [ ]

Ki omo ma wo digi ki eyin re o to tujade le sokunfa dida itujade duro

1. Beeni [ ] 2. Beeko [ ]

35. Titete tujade eyin je amin ogbon ninu omo 1. Beeni [ ] 2. Beeko [ ]

36. Ibi le ba idile kan ti won ba bi omo pelu eyin 1.Beeni [ ] 2. Beeko [ ]

37. Erigi gbodo je lila fun ki eyin o le baari ona 1.Beeni [ ] 2. Beeko [ ]

38. Idaduro itujade eyin tumosi pe eyin omo naa yi o pe kanrin 1. Beeni [ ] 2. Beeko [ ]

39. Idaduro itujade eyin tumosi pe omo naa yi o pe laye 1. Beeni [ ] 2. Beeko [ ]

SECTION E: AWON ISESI LASIKO ISAKOSO EYIN HUHU

Instruction: Ejowo e ka awon ibeere ti o wa ni isale ki e si yan awon idahun ti o to

40. Se nkankan ninu awon omo re ni isoro eyin huhu ri ? 1. Beeni [ ] 2. Beeko [ ]

41. Ni asiko ipo eyin huhu eyikeyi ninu awon omo re, nje o lo ogun Kankan?

1. Beeni [ ] 2. Beeko [ ]

ti o ba je beeni,

42. Ewo ninu awon ogun ni e lo? 1. Awon ogun ile [ ] 2. Awon ogun ile iwosan[ ]

43. Kini orisi awon ogun ile ti e ti lo? (**Tick [√] all mentioned)** 1. Ogun eyin olomi[ ] 2 Biba pelu omi ti o loworo [ ] 3. Isere/omo langidi huhu eyin [ ] 4. Ogun ara riro [ ] 5. Ogun eyin oniyefun [ ] 6.Egbo igi [.] 7. Fifi nka ra erigi [ ] 8. E fun omo naa laaye lati ge nka tutu je [ ] 9. E gba fifi fida jeun laaye je [ ]

44. Kilode ti ogun ile fi teyin lorun? 1. Ko won [ ] 2. O ma n se ise dada[ ] 3. O ma n sise warawara [ ] 4. Ko n gba asiko [ ] 5. So awonmiran nipato_____

45. Ewo ninu awon idasi ni o lo lati mu ede ba iba omo re ni igba ti o n hu eyin 1.Parasitamo[ ] 2. biba pelu omi ti o loworo [ ] 3.Bonabebi [ ] 4. Ogun tewe tegbo [ ] 5. E kan si dokita kan [ ] 6.Awon miran, nipato_____

46. Idasi fun isakoso igbegbuuru lasiko eyin huhu 1. Oogun fifa enu gba gbigbe [ ] 2. Ogun eyawuuru [ ] 3.Didin nkan olomi ni jije ku [ ] 4. Sise afikun nkan olomi ni jije[ ] 5. Ma fun omo naa lo nje rara [ ] 6. Kansi dokita kan [ ] 7. So awon miran ni pato _____ÌLÀNÀ ÌWÉ-

ÌBÉÈRÈ FUN IJIRORO LARIN ÀWỌN EYAN TI ỌRỌ KAN

ÌMỌ̀, ÌWÒYÈ ÀTI ÌṢEṢÍ ÀWỌN ÌYÁ ỌMỌ TÍ ỌJỌ ORÍ WỌN KÒ TÓ ỌDÚN MÉJÌ LÁSÌKÒ TI ÀWỌN ỌMỌ WỌN BÁ N WU EYÍN NÍ AGBÈGBÈ ÌJỌBA ÌBÍLẸ ÌBÀDÀN NORTH, ÌBÀDÀN ÌPÍNLẸ ỌYO

Ifaara/Afihan: Ẹ ku deede iwoyi o ẹyin iya wa,

Orúkọ mi ni Okedele, Timilehin Elizabeth Mo jẹ́ akẹ́ẹ́kọ́ làtí ile ìwé giga Yunifàsitìi tí Ile Ibadan, Koleeji tí onítọjú pélu òògùn, ní abala tí óhún rísí ètò ìlera àwọn ará ìlú ẹka tí àtí n risi eto nípa idanilẹkọọ ati igbega eto ilera. Mo nse ìwadìí lórii ìmò, ìwòyè àti ìṣẹṣí àwọn ìyá ọmọ tí ọjọ orí wọn kò tó ọdún méjì lásìkò ti àwọn ọmọ wọn bá n wu eyín ní Agbègbè Ìjọba Ìbílẹ Ìbàdàn North, Ìbàdàn Ìpínlẹ Oyo.

Ao maa beere àwọn ibeere nipa àwọn ero yin, àwọn iriri yin ati iwoye yin lati ṣe iranlọwọ fun idagbasoke àwọn ọmọde ni ibugbe ati agbebgbe yii. Kikopa nínúu iwadi yìí jẹ́ tí eyi ti oti okan yin wati kosi ni isoro tabi wahala kankan ti ẹ ko ba fẹ kopa ninu iwadii yii. Yiyẹra lati kopa kuro nínúu ìwadìí yìí kọ le ko iyọnu bayin ni eyikeyi ọna. Ẹ lee pinnu lati yẹra nigbakugba lásìkò ti ijiroro ba n lọ lọwọ. Didahun si àwọn ibeere yi ko ni gbayin ni akoko pupọ, gbogbo akoko ti yio gbayin ko ni ju ọgbọn tabi ogoji iseju lọ. Ti ẹ ko ba ni binuu, yio wuwa lati fi ẹrọ igbohunsilẹ gba àwọn ijiroro yii silẹ ki a ma baa padanu àwọn àlàyé olowo iyebiye ati àwọn àlàyé ti o se pataki ti ẹ ba se fun wa lásìkò ti ijiroro ba n lọ lọwọ.

Njẹ ale maa tẹsiwaju ninu ijiroro way ii? 1. Bẹ́ẹ̀ni [ ] 2. Bẹ́ẹ̀kọ́ [ ]

Àwọn ibeere:

1. Ẹ Jẹ ki a bẹrẹ ijiroro wa nipa sisọrọ lori ohun ti o n jẹ wíwù eyín àwọn ọmọde. Kini ohun ti ẹ mọ nipa wíwù eyín fun ọmọde?

- Ẹ jọwọ ẹ ṣe àlàyé lori àwọn ipele larin ti ọmọ ba n wu eyín ?
- Kini àwọn aamin ati àwọn apẹẹrẹ ti a maari ti ọmọde bafẹ wu eyín wipe eyín ?

2. Kini àwọn ewu ti o wa pẹlu ki ọmọde ma wu eyín?

Túnbọ ṣe ìwádìí síwájú lórií

Bi omi ara ọmọ ṣe n gbẹ, ti on mu ọmọ ruu, aitoẹjẹ ti o ma n waye latiari iba; arun giri, ati bẹbẹ lọ

3. Kini àwọn ohun ti àwọn iya ọmọ ma n lo fun ọmọde nigba ti o ba n wu eyín lọwọ?

Túnbọ ṣe ìwádií síwájú lórií Òògùn kokoro, egboogi; òògùn ara riro; òògùn ẹgba ọrun eyín ọmọde; atike fun eyín ọmọde; omi iyọ ati sugar (ORS); gbẹrẹ eyín ọmọde ati be be lo.

Kini idi ti àwọn eniyan se nlo iru àwọn nkan bẹẹ fun ọmọ nigba ti o ba n wu eyín?

Njẹ ẹ ti ẹ kabamọ lorii lilo àwọn òògùn ẹrọ won yii?

4. Ewo ninuu àwọn òògùn ẹrọ wọn yii lo sisẹ ati wipe ewo ni ko sisẹ nigba ti ẹ lo wọn?

5. Kini àwọn igbagbọ ti orọ mọ aṣa lorii wíwù eyín àwọn ọmọde?

Túnbọ ṣe ìwádií síwájú lórií

Àwọn àlàyé ti o jẹ mọ; aamin idagbasoke; kokoro to n fa aarun; wiwoye wipe ọmọ fee gaa; ati àwọn nkan ti ojẹ ti asa ilẹ wa ti o ma n jẹ àwọn iya ọmọ mọ pẹlu idaniloju wipe ọmọ wọn n wu eyín?

6. Kini igbagbọ ti àwọn iya ọmọ tí ọjọ orí wọn kò tó ọdún méjì lorii fifun ọmọ lọmu lásìkò ti o ba n wu eyín lọwọ?

Túnbọ ṣe ìwádií síwájú lórií

Bi Fifun ọmọ lọmu ṣe pataki to nigba ti o ba n wu eyín.

7. Àwọn imọran wo ni ẹ ni fun àwọn iya tí ọjọ orí wọn kò tó ọdún méjì lorii lori bi a ṣe le itọju ati iṣakoso ọmọ nigba ti o ba n wu eyín?

Túnbọ ṣe ìwádií síwájú lórií

Gbigbe ọmọ lọ si ile-iwosan; omi iyọ ati sugar (ORS) fun ọmọ nigba ti o ba n ya igbẹ gbuuru lakoko naa ati bẹ bẹ lọ.

8. Njẹ àwọn àlàyé miiran ati àwọn iriri ti ẹ fẹ fun wa lori ìmọ̀, ìwòyè àti ìṣẹṣí àwọn ìyá ọmọ tí ọjọ orí wọn kò tó ọdún méjì lásìkò ti àwọn ọmọ wọn bá n wu eyín lọwọ?

A DUPẸ LỌWỌ YIN FUN IFỌWỌSOWỌPỌ YIN LORI BI Ẹ SE PẸLU WA SE IJIRORO YIN.