Republic of Iraq
Ministry of Higher Education
and Scientific Research
University of Babylon
College of Nursing

Mothers' Misconceptions and Traditional Practices toward Infant Teething process

A Thesis

Submitted to the Council of College of Nursing, University of Babylon in Partial Fulfillment of the Requirements for the Degree of Master in Nursing Sciences.

By

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Supervised by

Asst. Prof. Dr. Wafaa Ahmed Ameen

October. 2023 **Rabi al-Awwal.1445**

بسم الله الرحمن الرحيم

﴿ يَرْفَعِ اللَّهُ الَّذِينَ آمَنُوا مِنْكُمْ وَالَّذِينَ أُوتُوا الْعِلْمَ دَرَجَاتٍ وَاللَّهُ بِمَا تَعْمَلُونَ خَبِيرٌ ﴾

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I certify that this thesis, entitled (**Mothers' Misconceptions and Traditional Practices toward Infant Teething process**), submitted by **Ansam Obaid Tayeh,** was prepared under my supervision at the College of Nursing, University of Babylon in partial fulfillment of the requirement for the degree of Master in Nursing Sciences.

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Committee Certification

We, the examining committee, certify that we have read this thesis entitled **"Mothers' Misconceptions and Traditional Practices toward Infant Teething process"** which is submitted by **Ansam Obaid Tayeh**, from the Department of Pediatric Nursing, and we have examined the student in its contents, and what is related to it, and we decide that it is adequate for awarding the (Master) in (Nursing Sciences) with the specialty of (Pediatric Nursing) and estimate of ( ) on / / 2023.

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Dedication

I would like to dedicate my humble work …

To the owner of the era and time, Imam Mahdi, may God hasten his honorable reappearance.

To whom who toil his fingertips to give us a moment of happiness To the one who harvested the thorns from my path to pave the way of knowledge for me To the big heart... my dear father.

To whom who drank the cup empty to give me a drop of love To the one who fed me love and tenderness To the symbol of love and healing balm To the white heart... my dear mother.

To all my sisters and brothers for their encourage and support.

To my second father, who leaned on him, who gave me the security and love that any father gives his daughter, and supported me throughout the study period….. my husband's father.

To the one who took my hand towards what I want, and restored my confidence in my ability to progress ….my amazing husband.

To those for whom I keep going, to the adornment and joy of my life, to the smiles that give me hope…… my children.

Ansam, 2023

Acknowledgements

If oceans turn into ink and all trees become pens, even then, the praises of "**ALMIGHTY ALLAH**" cannot be expressed, who created the courteous and knows even what is there in it, hidden or evident which is beneficent for the human; and who bestowed upon the intellectual ability and wisdom to search for its secrets. Countless salutations be upon the Holy Prophet **MUHAMMAD (S.A.W.W),** the city of knowledge, who has enjoined upon his 'UMMAH' to seek knowledge from cradle to grave.

I would like to express my sincere appreciation to Babylon University, College of Nursing to give me a chance to complete my study and special thanks to **Prof. Dr. Amean Ageel Yasir** the Dean of the College of Nursing, University of Babylon for his support. Great thanks and appreciation to the Deanship of Nursing College for the facilitation students of higher studies and simplifying obstacles.

I would like to express my deepest gratitude and special thanks with appreciation to my supervisor (**Asst. Prof. Dr. Wafaa Ahmed Ameen**), she is being the teacher, educator, and owner of the credit and effort, she had the main, important and real supportive role, continuous supervision, and wise advice, throughout the study period, thank you very much and my responsibility for their encouragement, valuable suggestions, and guidance. I gratefully acknowledge the endless generosity of the experts who kept me on the right track, for their time throughout the building study tool.

In addition, I would like to thank the spiritual inspiration (**Dr. Nuhad Mohammed**) for her encouragement, and all staff of the College of the Nursing / University of Babylon, especially (**Dr. Nada , Dr. Amina and, Dr. mohammed**)for their assistance to me in passing my master's study.

Special thanks to , who have helped me in the darkest of circumstances and to all healthcare providers at **Babylon Health directorate** for their encouragement and support in data collection.

Moreover, I would like to thank the **participants** of this study who helped me in making this thesis possible to be accomplished. Without whom this effort work would never have come to fruition.

Finally, I pray to Allah Almighty to bless them all.

Abstract

Misconceptions regarding teething among mothers may result in misdiagnosis and mishandling of potentially dangerous children's disorders. As a result, assumptions concerning teething must be evaluated. Mothers play an essential role in managing children's health during the teething period between six months and three years. This study aimed to assess mothers' misconceptions and traditional practices and their relationship between them and with their demographic towards infant teething process.

A descriptive study was conducted in Al- Hilla City during the period from the 20th of February to 16th April 2023, the non-probability purposive sample approach consisting of 180 mothers who visited primary health care clinics, the questionnaire is a tool used to collection the data, the validity of the questionnaire was verified by experts, data were analyzed by applying descriptive and inferential statistical analysis.

The results indicated that the average age of the participants is 28.53 years were mostly use a family member as a source of information about infant teething symptoms. There is a negative correlation between conceptions and misconceptions (r= -.147*); and a positive correlation between conceptions and traditional practices (r= .705**).

The results showed that mothers' conceptions, misconceptions, and traditional practices about infant teething process were within an average level. Statistically significant variations were shown by the study calculation of variance in variables according to different age groups.

Educational initiatives are urgently needed to improve parents' understanding of the teething process in young children and their parenting skills. Parents should receive help and advice on where and how to find reliable, scientifically supported information on how to address teething symptoms.

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List of Abbreviations

Item	**Full Term**
AAPD	American Academy of Pediatric Dentistry's
AD	Anoo Domini
Ass	Level of Assessment
BNF	British National Formulary
CPS	Canadian Pediatric Society
° C	degrees Celsius
DF	Degree of Freedom
DPF	Dental Practitioner Formulary
et. al.,	And others
Fig	figure
FDA	Food and Drug Administration
F	Frequency
HTPs	Harmful Traditional Practices
HA	hyaluronic acid
Max	Maximum
M	Mean
MHRA	Medicines and Healthcare Products Regulatory Agency
Min	Minimum
NAFDAC	National Agency for Food and Drug Administration and

	Control
NICE	National Institute for Health and Care Excellence
NO	Number
OPD	Outpatient Department
P	Probability
R	person correlation
Sig	Significant
SDVs	Socio-Demographic variables
SD	Standard Deviation
SPSS	Statistical Package of Social Science
T	t- test
UAE	United Arab Emirates

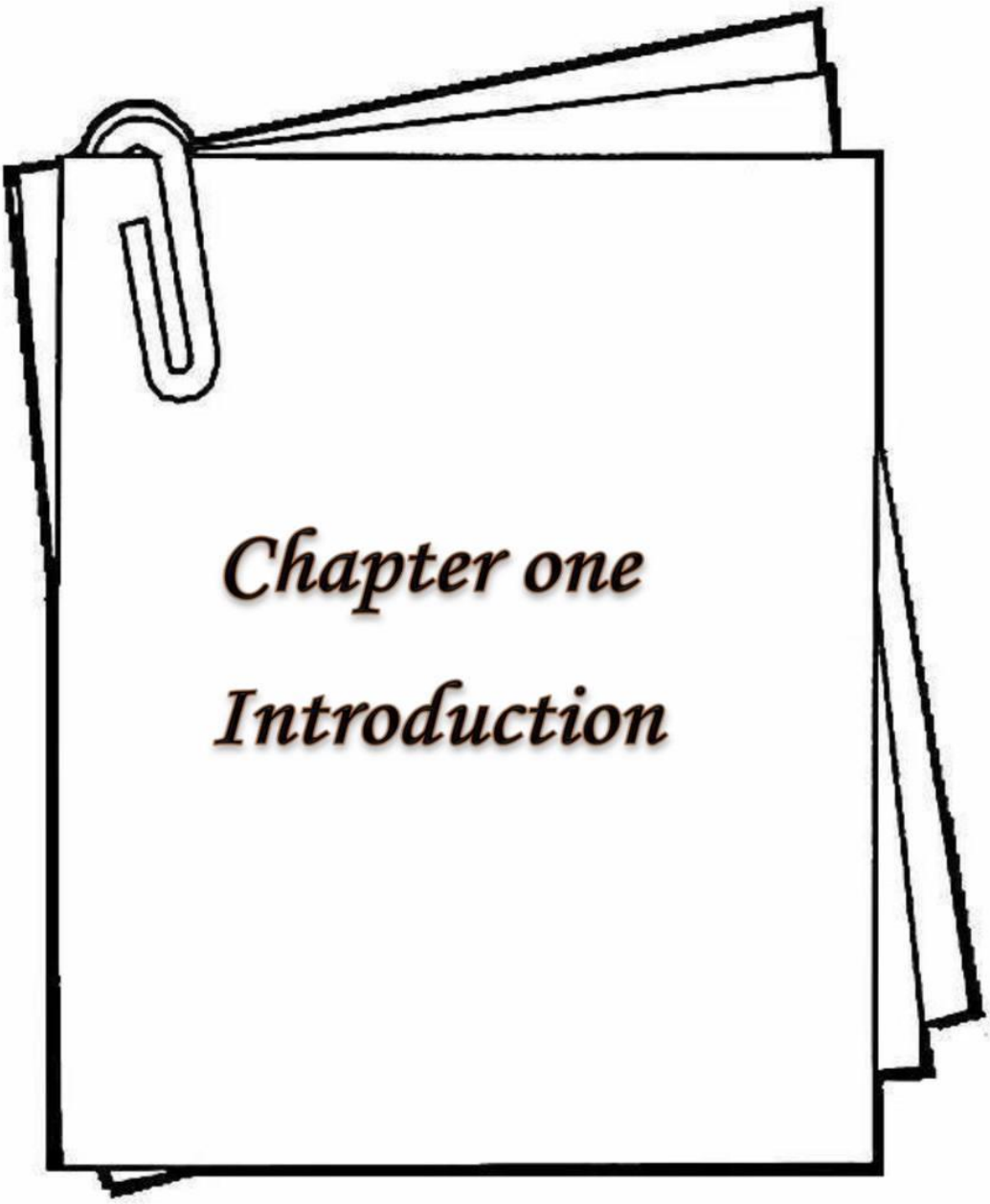
List of Symbols

Symbols	**Full Term**
<	Less than
≥	less than or equal
%	Percentage
µm	Micrometer

List of Appendices

List	**Appendices**
A	Administrative arrangements
B	Questionnaire

C	Panel of Experts
D	Linguistic approval



Chapter one

Introduction

Chapter One

Introduction

1.1. Background of teething

Teething is a physiological process known as tooth eruption in which a tooth emerges from the jaw into the oral cavity. Teething was thought to be connected with misconception symptoms such as fever, diarrhea, dermatitis, constipation, irritability, respiratory disorders, frequent finger sucking, rashes, face flushing, and poor appetite.(Ahmed *et al.*, 2021)

The term "eruption" comes from Latin and means "the act or process of erupting." To put it another way, tooth eruption refers to all tooth movement from development to functional position.(Maria *et al.*, 2013)

Teething is a normal physiological process that occurs without incident during the first several months of life. Teething in infants is thus a significant medical concern that necessitates appropriate attention and treatment. A high majority of neonates experience the common problem of uncomfortable teething. Parents who seek treatment at pediatric clinics are concerned about it.(Di Pierro *et al.*, 2022)

Teething symptoms might be localized or generalized. Drooling, a rash caused by saliva on the chin or face, a diaper rash, blushed cheeks, rubbing the ear on the side of the eruptions tooth, mouth blisters, eruption cysts, biting objects, and thumb sucking are a few of the local symptoms. (Topal *et al.*, 2023).

Irritability, fever, restlessness, loss of desire to eat, crying, diarrhea, constipation, colic, nausea, vomiting, coughing as a result of hypersalivation, nasal congestion, strong urinary odor, and stomach pain

are some of the symptoms that are present systemically. (Pereira *et al.*, 2023)

However, studies have shown that there is no connection between these symptoms and tooth eruption. For instance, newborns' salivation increases throughout the first two to three months of life as a result of the development of their salivary glands, which is sometimes mistaken for a sign that a tooth is ready to emerge. (Pereira *et al.*, 2023)

For decades, teething has been blamed for a variety of childhood ailments. According to Hippocrates, children who have been through difficult teething phases are more likely to recover from other childhood illnesses. Many parents view a child's teething as a critical stage in their development. (Kumar *et al.*, 2016)

Misconceptions regarding teething among mothers may result in misdiagnosis and mishandling of potentially dangerous children's disorders. As a result, assumptions concerning teething must be evaluated and modified if they are not supported by research. (Ahmed *et al.*, 2021)

All children experience teething as a physiological process. The entire procedure normally takes about two years and occurs between the ages of six and thirty months. Many unrelated illnesses are attributed to teething, which causes parents to feel stressed. From grandparents to healthcare providers, it seems that everyone has a list of signs and symptoms they associate with teething. (Yousif, 2020).

As the basis of incorrect knowledge or preconceptions, parents and healthcare providers may wrongly attribute to teething the symptoms of minor or potentially fatal infections. These false/misguided perceptions can contribute to an infant's standard developmental needs going unmet. They can also cause delays in the diagnosis of serious disorders (Topal *et al., 2023*).

Dentists and physicians disagree about the relationship between tooth eruption and the emergence of local and systemic changes. In this context, there are two schools of thought: one believes that because tooth eruption is a physiological process, it cannot cause any changes in the child, while the other believes that the eruption process can cause a variety of local and systemic symptoms. (Portela *et. al*,2015)

By modern clinical practice standards, the historical therapy of teething could only be described as savage. In the past, treating teething with various methods such as burning, bleeding, sticking parasites on the gums, and using cautery on the skull's back.(Pruthi *et al.*, 2023)

Teething problems are frequently treated in unsafe ways, such as by taking cold showers, using an amber neckless, or tying a penny with different spices. While being bottle-fed or breastfed, infants are given a choice of vegetables or freezing bread items to snack on. Antibiotics, according to mothers, are also beneficial. Despite the risk of methemoglobinemia, child choking, and intoxication, local anesthetics containing benzocaine and lignocaine, and choline salicylate, raise the possibility for chemical ulcers, and the condition known as Reye's syndrome are also frequently used.(Olczak-Kowalczyk *et al.*, 2016)

Other methods of managing fever include bath cooling, the use of analgesics, and chemicals like lead acetate, the element mercury, and bromide, which parents may believe are practical and appropriate. However, teething rings can make strangulation a greater possibility. Painkilling properties of benzocaine- or choline-salicylate-containing teething gels have also been established. These substances should be used cautiously because they can cause methemoglobinemia, getting choked, and drunkenness. (Pereira *et al.*, 2023)

False ideas held by mothers may impede the timely detection and treatment of major illnesses. Misconceptions about teething and its

treatments persist. Teething treatment options seek to provide analgesia, anesthetic, or sedation. The most widely utilized drugs were analgesics and antibacterial syrups.(El-Gilany and Abusaad, 2017)

Some parents prefer natural and homeopathic teething remedies, such as giving their children clean, cooled objects for chewing on while they are experiencing tooth pain, such as frozen teething rings or rattle, chilled solid vegetables, or a cool, wet gauze pad. (Eskandarian,2015).

The transition from a passive to an active immune system may contribute in some small way to the occurrence of mild discomfort associated with initial tooth eruption. Regarding the symptoms and signs of teething, parents often have misconceptions. Frequent health problems mentioned by parents included fever and diarrhea. (Elbur *et al.*, 2015)

A major deviation from this physiological tendency may raise the possibility of an underlying sickness in the child. This raises anxiety for parents and may necessitate further study using procedures such as radiography.(Vejdani *et al*., 2015)

Misconceptions regarding the teething process have resulted in high infant morbidity and death, as was recently seen in Nigeria as a result of the intake of an adulterated medicine supposed to prevent and cure teething-related disorders in newborns. The common myths about teething are assumed to be the result of a lack of awareness. (Aliyu et al., 2018;Bankole *et al.*, 2017).

The misconceptions are essentially traps for our unwary infants who are given a variety of teething medicines, including the much-discussed "My Pikin" teething combination. This has resulted in so many deaths that the former Director General of the National Agency for Food and Drug Administration and Control (NAFDAC), Dora Akunyili, revealed that 25 children had died after receiving the medicine in Zaria, Ibadan, and Lagos. This is only a fraction of the deaths linked with teething as a result

of misinformation because children who die from severe dehydration as a result of acute diarrheal sickness classified as teething and hence not brought for medical care are not included. (Aliyu *et al.*, 2018)

However, most studies and the American Academy of Pediatric Dentistry (AAPD) concurred that teething can cause localized areas of discomfort, irritability, gingival irritation, and increased salivation, especially on the exact date of eruption and one day after the eruption, and that teething kids should not exhibit serious health problems.(Alkhozaim *et al.*, 2022 ;Paola *et al.*, 2019)

Teeth development is a good indicator of maturation and biological age. Breastfeeding status, vitamin consumption, walker use, and body mass index were found to not affect the time of appearance of the first deciduous tooth or independent walking. To alleviate parents' anxiety when their child develops a tooth but does not walk, they should be informed that there is no relationship between the two.(Kaymaz *et al.*, 2015)

Teething causes an inflammatory response that can result in pain, interrupted sleep, swelling gums, and irritability. These symptoms have all been linked to maternal factors such as vitamin deficiency, smoking, delivery method, and ethnicity. They must be distinguished from important symptoms in a child, such as diarrhea, high temperature, seizure disorders, gastrointestinal pain, and vomiting, which happen due to maternal antibody depletion during the same time frame of the infant's life and are prominent but not severe.(Faheem *et al.*, 2022)

The eruption of primary teeth is an essential milestone in infant development, and parents' perceptions of this occurrence may differ, particularly in different cultural, social, and economic circumstances. The examination of potentially associated factors can identify risk groups and allow for the establishment of crucial preventive actions aimed at clarifying and guiding parents. (Portela *et al*,2015)

Limited communication between the child and caregivers characterizes this period, and it is also critical to diagnose life-threatening infections that present with nonspecific symptoms. Both are dangerous in their disregard for significant infection signs connected with teething. (Kartald *et al*.,2015)

Pain and other discomfort related to tooth eruption in newborns are usually assumed to be manageable through pharmaceutical and non-pharmacological techniques, however, this has yet to be demonstrated. Teething problems are temporary but might reoccur between the ages of 4 and 36 months (Karjiker & Morkel, 2020)

The majority of evidence for teething signs and symptoms comes from subjective remarks from parents, childcare providers, and/or health experts. Wakefulness and night-time screaming might be brought on by anxiety about being separated from a parent or attention seeking, while teething difficulties can also be brought on by developmental changes, such as a decline in maternal antibodies. (Karjiker & Morkel, 2020)

Misconceptions about teething held by mothers may impede the timely detection and treatment of serious disorders. Young children who visit pediatric outpatient and urgent care centers with a high fever, severe diarrhea, dehydration, or signs of infection have to wait longer to receive medical advice. The parents believed that teething was the cause of these symptoms and signs. Assuming that teething is the cause, such severe diseases may result in significant morbidity among infants and toddlers. (Yousif, 2020)

Over the years, a lot of techniques based on usual and individual beliefs and practices have been employed to alleviate teething symptoms. Certain cultures have employed abrasive, occasionally dangerous techniques for erupting teeth, such as localized blistering, cautery, or gum lancing. Even though some techniques, like teething chains

or folk remedies, are regarded as secure and easy to apply, they raise the danger of suffocation or inhaling tiny beads. Other approaches to treating fever include using opiates, poisons like lead acetate, mercury, and bromide, or taking cool baths.(Memarpour *et al*., 2015)

Midwives in Nigeria believed that early tooth eruption was caused by evil spirits, breaking cultural taboos, and a long gestation period. They also linked strange behavior, wicked spiritual power, and mental disorders in children to the impact of natal/neonatal teeth. (Amjad *et al*., 2022)

Teething was the subject of considerable folklore in medieval times. The ailment was even given a Latin name, DentitionDifficilis, and the belief that teething was a major cause of infant mortality persisted. (Pollak, 2017)

1.2.The importance of the study.

According to Ronald Stanly Illingworth, "teething produces nothing but teeth" in 1975. This clear phrase summarizes the real process of teething, but it is not commonly acknowledged. (Yousif, 2020)

Ethiopian tradition holds that a worm in the child's gums may be the cause of their diarrhea and fever at the time of the eruption of their milk teeth. More than 80.2% of the general population have milk teeth extracted, according to Ethiopia's 1997 National Baseline Survey on Harmful Traditional Practices (HTPs). This practice, which is valued as a symbol of ethnic identity in the Gambella region, is particularly common there. This practice is 89% prevalent in the Oromia region. (Getaneh *et al*., 2018).

Since the beginning of time, various treatment modalities have been considered based on the assumptions that people have made. For instance, in the first centuries of history, procedures, and treatments like lancing (making an incision at the location of the rupturing tooth), opiates,

coral use, and homeopathic ointments were very prevalent. As a result, these treatments could exacerbate the infant's condition while also fostering false practices and ideas. In addition, because infant mortality rates were higher in earlier eras at the same age range as teething (6 months to 2 years), this unfounded belief that teething could even result in death developed. (Faheem *et al.*, 2022)

Since they naturally monitor their children's growth and can see changes in their behavior, mood, or health, parents play a significant part in their children's teething process. Parents are more likely to attribute "teething" symptoms to teething than actual or perceptible tooth eruption. Several studies have examined parents' knowledge of teething and the symptoms and indicators that go along with it, highlighting misconceptions and incorrect ideas. (Thompson K, Huntington MK., 2019)

Though the timing and process of teething are both exciting for parents, misconceptions about the process are common. Many parents, and even some health care providers, still identify teething with one or more symptoms, risking missing a potentially fatal ailment simply because it is labeled as teething. As a result, it is recommended that other organic causes be ruled out in a child who is ill enough to be admitted to the hospital, this will aid in the right management of such a youngster. It is also critical that parents and healthcare workers understand the signs of teething and how to handle them.(Namola *et al.*, 2015)

The majority of Jordanian parents incorrectly attributed fever, diarrhea, and drowsiness to teething. Furthermore, approximately 11% of them permitted nighttime nursing and bottle-feeding to deal with teething issues. Parents' incorrect perceptions about teething may impede the timely identification and care of a variety of systemic disorders. Although these beliefs are unsubstantiated, they are unlikely to change their perception. As

a result, parents must be informed about the myths as well as the facts concerning teething, and medical practitioners must provide a reasonable explanation to nervous parents. (Amjad *et al.*, 2022)

Many beliefs regarding teething and related treatments have been around for ages in various cultures. It was so common to link serious illnesses to teething that in 1842, 4.8% of all infant deaths in London under one year and 7.3% of those between one and three years were attributed to teething, and in 1910, one thousand six hundred deaths in England and Wales were reported to be related to teething. (Elizabeth *et al*., 2021)

Although teething is a normal process that only causes little local discomfort, teething medications have caused more harm than the actual teething process. (Nsirimobu and Olarewaju, 2014)

Mothers believed that employing lollipops and frozen veggies would bring comfort from painful teething. The eruption of the deciduous (primary) teeth, also known as teething, is one of the most unpleasant stages in the lives of newborns (and parents). Teething is a physiological process, and some discomfort is normal as the crown of the tooth breaks through the periodontal membrane. (Olah *et al.*, 2020) ; (Marilyn& David, 2013)

A recent study by (Massignan *et al*.,2016). included 16 studies that met the inclusion criteria. They found that children between the ages of 0 and 36 months had a general predominance of symptoms and indicators related to the eruption of primary teeth. The most common ones were gingival discomfort, agitation, and drooling.(Pollak, 2017)

(Owais *et al*.,2010) found that nearly (75%) of the people participating in a survey of 1,500 parents who attended prenatal and

healthcare agencies in Jordan incorrectly associated fever, diarrhea, and sleep disruptions with teething. Teething was related to different diseases such as fever, diarrhea, and conjunctivitis by 58% of ethnic rural inhabitants in Ibadan, Nigeria. Turkish parents' experiences with their infants' teething revealed that 78.8% of symptoms noted in their children, such as increased biting, irritability, and fever, were related to teething. (Bankole *et al*., 2013)

Mothers of firstborn children were shown to be more likely than those with previous experience with children to attribute symptoms to teething. Prior decades saw extremely high rates of child mortality, which frequently peaked between the ranges of six months and four years of age, which coincided with tooth eruption. It is rarely strange, then, that teething was once believed to be the cause of death. Many cultures have incorrect beliefs and biases about teething, according to numerous studies. (Yousif, 2020)

1.3. The Problem Statement.

"Mothers' Misconceptions and Traditional Practices toward Infant Teething Process"

Many parents have misconceptions regarding the teething phase, even though both the time and the procedure are exciting for parents. The common occurrence of teething-related health issues in primary healthcare settings is compounded by the possibility that a mother's untimely conception could obstruct the early detection and treatment of serious illnesses. There are many persistent myths regarding teething and its treatments. The likelihood of ignoring possibly fatal illnesses exists because many signs and symptoms associated with teething in children have been reported. It is also critical that mothers and healthcare workers understand the signs of teething and how to handle them.

Pediatricians, nurses, public health physicians, family physicians and community dentists have an obligation to engage in aggressive health promotion activities. Antenatal clinics, immunization clinics, pediatric outpatient clinics and the general community should be targeted with appropriate health education messages.(Oyapero *et al.*,2016)

1.4. Research Question:

Is there positive or negative correlation between mothers' conceptions , misconceptions and traditional practices toward teething process?

1.5.The objectives of the study: To

1. Identify the mothers' conceptions and misconceptions toward teething process.
2. Identify traditional practices of mothers toward teething.
3. Find out the relationship between the socio-demographic conceptions, misconceptions, and traditional practices of mothers about teething.
4. Determine the correlation between conceptions and misconceptions and with traditional practices of the mothers

1.6. Definitions of Terms

1.6.1.Misconception

Theoretical Definition:

A belief or a concept that is not based on reliable facts or that people do not understand. (oxford advanced American Dictionary)

Operational Definition

A wrong or inaccurate idea of mothers that teething causes disturbances such as fever, diarrhea, sleep disruptions, ear infection,

vomiting, cold and cough, and others, usually being incorrectly attributed to teething among children.

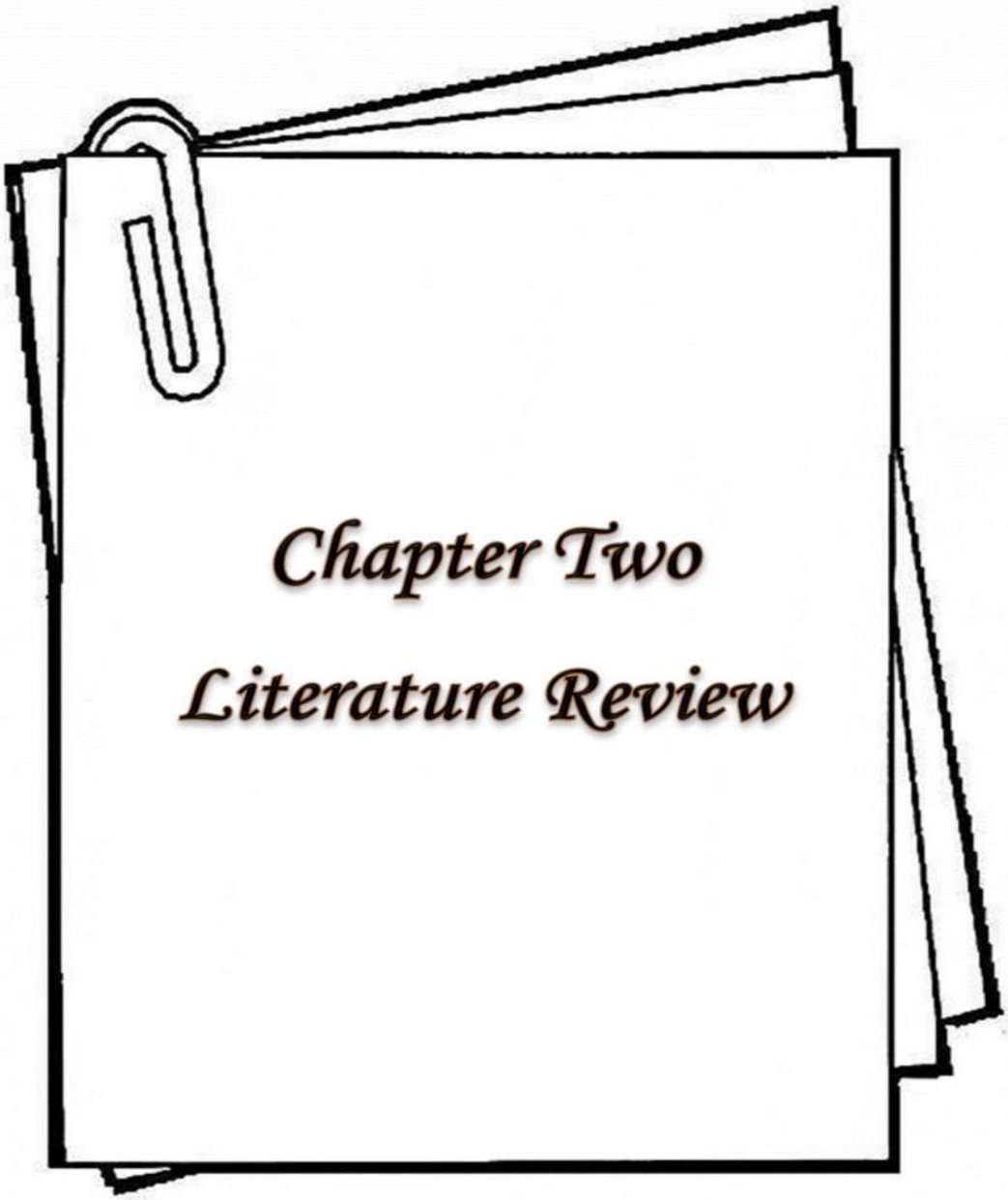
1.6.2 Traditional Practice

Theoretical Definition:

Traditional practice is the accumulation of comprehension, imagination, abilities, and some activities based on theories, beliefs, and, most importantly, experiences unique to various teachings, cultures, and traditions.(Sayed *et al*., 2023)

Operational Definition:

Procedures based on usual and individual beliefs like using herbs, giving a clean pacifier, biting on a chilled object, consulting grandmother, applying topical analgesics (pain killers) to the gums, and others were mother employed to alleviate teething symptoms.



Chapter Two

Literature Review

Chapter Two

Literature Review

This chapter summarizes almost all relevant and available literature on the mothers' misconceptions and traditional practices toward infant teething process. The presentation has been systematically arranged as

2.1 Overview of Teething

Primary tooth eruption is a difficult, tightly controlled process in which teeth emerge from the gums and are visible for a brief period. After the fifth week of pregnancy, human primary teeth begin to form and develop. Several tooth-related genes are expressed as the dental epithelium and oral ectomesenchyme interact mutually, subtly, and intricately to generate teeth in the upper and lower jaw.(Ogodescu *et al.*, 2022)

One of the key factors determining a child's health state is biological maturation. Temporary, in a specific order, tooth growth signals appropriate development of the child's body organs. The eruption of permanent teeth is a physiological process that is closely tied to the general condition of health in children.(Kamilova and Kamilov, 2020)

Teething is a normal physiological process that occurs when a tooth transitions from its pre-eruptive stage to its functional occlusal stage throughout a given amount of time. Around six months old is when the eruption process begins, and it lasts until three years old. Therefore, the average youngster erupts one tooth on average every month between the ages of 6 and 30 months. (Faheem *et al.*, 2022) .

The maximum number of primary (temporary, deciduous, or milk) teeth in children is 20, and the maximum number of permanent teeth is 28. Except for the fourth molars, which erupt between the ages of 17 and 25, all of these have emerged by the time a person is 14 years old. By the 30th month of life, all of the erupting deciduous teeth should be in place. There are 20 teeth in total, including four incisors, two canines, and four molars in each jaw. Usually, the two lower incisors break through first, then the two lower incisors. Lower canine, upper canine, upper lateral molar, lower lateral incisors, and ultimately the upper lateral molar. (Quddusi *et al*., 2020)

It appears that the oral follicles are highlighted in this process and have a substantial impact due to their rich source of eicosanoids, cytokines, and growth factors. Inflammatory cytokines including IL-1B, IL-8, and TNF-alpha are present in higher levels in the gingival crevicular fluid, where the main tooth develops, which may account for several teething signs and symptoms.(Miri-Aliabad *et al*., 2021)

In certain cultures, the process of teething is considered a traditional turning point in a child's growth. It normally takes eight days for a tooth to erupt, with the first four days being the days leading up to it, the day it erupts, and the final three days being the days following it. (Olatunya *et al.*, 2020)

When a child's main teeth are about to emerge, at around 4-6 months of age, the mother's antibodies start to decline since the infant has not yet developed enough antibodies to adequately defend itself from infection. Infants also start to crawl and put foreign objects in their mouths to relieve pain and discomfort,

which can cause microorganisms to enter their systems and cause gastrointestinal issues such as a virus or bowel infection, diarrhea, vomiting, and an increase in body temperature. (Almatrouk, 2021)

Lower central incisors are the first primary teeth to erupt, and they do so between the ages of 6 and 10 months (on average, 8 months). The upper central incisors come right after these. Following is a simple guide for evaluating deciduous teeth throughout the first two years: Number of teeth = Age of the child in months - 6. 8 months old - 6 equals 2 teeth at this age, for instance. (Hockenberry and Wilson, 2018) see figure 2.1

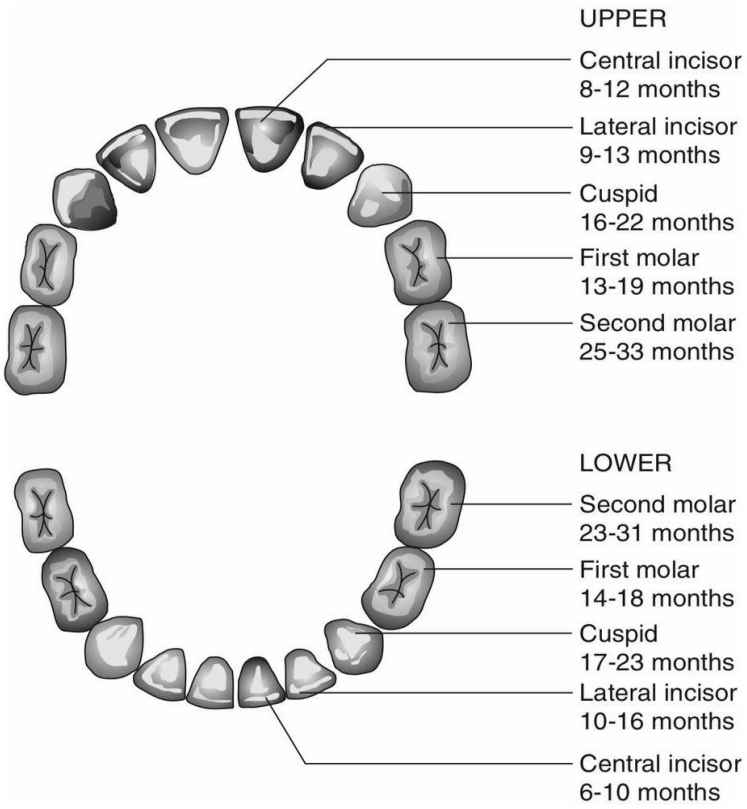


Figure 2.1: Eruption pattern of Deciduous Teeth. (Pillitteri, A., 2010).

Drooling, decreased appetite, trouble sleeping, rhinorrhea, fever, diarrhea, rash, and vomiting are the most

frequently reported general symptoms during primary tooth eruption, followed by irritability and drooling. Teething was blamed for about half of all newborn fatalities in eighteenth-century France. 5016 newborn deaths were attributed in 1839 in England and Wales by official registrars to teething. Teething is noted as a reasonably frequent cause of child fatalities in early Utah pioneer records; from 1847 to 1881, a total of 521 deaths were recorded as being brought on by teething. (Pollak, 2017)

The term "teething signs" is preferred by some authors and physicians. Since more than 400 years ago, people have identified teething issues as health hazard that can lead to newborn death. In certain locations, the death rate from teething issues was as high as 4 out of 5 babies annually until recently. The number of deaths related to teething problems has decreased thanks to better healthcare, the observance of high standards of personal hygiene, and environmental sanitation.(Obiajuru *et al.*, 2017)

The result of this misunderstanding is the assumption that the occurrence of such symptoms is an indication of a serious disease that could risk a child's life. They do, however, also experiment with various pharmacological and non-pharmacological teething therapies. Mothers frequently associate a child's symptoms with teething even though they may also be linked to other systemic diseases. (Pradhan *et al.*, 2020)

Other events that occurred during that time include the beginning of supplemental feeding, gastrointestinal adaptation, a decrease in maternal antibody levels, and the development of infection resistance. Teething may begin as early as 4 months of

age, although it may also be delayed until 1 year of age. (Yilmaz *et al.*, 2016)

A study in Nigeria found a link between mothers' awareness of teething symptoms and their children's. The general knowledge of those mothers was found to be adequate. It was fascinating to learn that they had utilized a variety of cures to help their babies. Teething syrup, teething powder, traditional herbs, and a combination of these were among the therapies.(Olah *et al.*, 2020)

Teething has long been associated with a variety of pediatric disorders. Large folklore developed surrounding teething during the middle ages, and the idea that teething was a significant contributor to infant mortality remained very popular. By the 1970s, articles in prestigious medical journals sought to refute the idea that serious systemic illness might be caused by teething. Different outcomes were obtained from attempts to pinpoint the negative systemic and local impacts of teething. The local teething symptoms are thought to be caused by inflammatory mediators being enriched in the dental follicle. (Pollak, 2017)

At 5 to 6 months old, when teething starts, babies chew on anything they can get their hands on to ease gum-line discomfort. Remind parents to look for any potential lead paint sources, like painted cribs, playpen rails, or windowsills. (Keefe, 2007). Paints safe for use on surfaces that children might gnaw on should be labeled "Safe for use on baby furniture.". (Pillitteri, A., 2010).

Based on the presumptions that humans have made since the beginning of time, many therapeutic approaches have been taken into consideration. For instance, in the early centuries of history, methods, and

treatments including lancing (creating an incision at the site of the rupturing teeth), opiates, the consumption of coral, and the use of homeopathic ointments were highly common. As a result, these treatments run the risk of making the infant's illness worse while also encouraging incorrect beliefs and behaviors. Additionally, this incorrect assumption that teething could result in death emerged as a result of the fact that newborn mortality rates were higher in former times during the same age range as teething (6 months to 2 years).(Faheem *et al.*, 2022)

2.2 Eruption Physiology and Process

Two distinct processes are described by the term's "emergence" and "eruption" of teeth. The developing tooth moves axially during an eruption from its initial position in the jaw to its functional position in the mouth cavity. The initial appearance of any part of the tooth crown entering the oral cavity via the gingiva is known as tooth emergence. Before the corresponding tooth erupts, the eruption process begins, and it continues until the erupting tooth is in its regular functional position. (Almatrouk, 2021)

The eruption of teeth happens in stages rather than continuously. The tooth's active actions are separated by intervals of time. The average pace of tooth eruption is 0.7 mm per month, which implies that it takes 2 months (with a variability of 0.9-4.9 months) from the time the tooth becomes felt by the gingival tissue until the complete eruption of the crown. The tooth advances 1 to 10 micrometers per day during the intraosseous stage. (Cieślińska *et al.*, 2022)

The pace of movement varies and increases to 75 µm per day after the erupting tooth reaches the alveolar bone crest and

breaks through the soft tissues. Local, genetic, and epigenetic variables all play a role in this stage of tooth formation. According to scientific studies by Hughes et al., genes control 70% of tooth eruption, with environmental variables contributing less. This confirms that tooth eruption is a genetically programmed process. Studies on mice have demonstrated that there is considerable genetic influence over dental development, including the number, size, shape, and eruption of teeth.(Cieślińska *et al.*, 2022)

The timing of tooth eruption varies by as much as six months, but typically begins around 4-8 months of age with the eruption of the lower incisors and is finished at around 30-36 months of age with the eruption of second primary molars. Early intervention is meant to help establish good dental hygiene and reduce the risk of dental caries. (Zakirulla and Allahbaksh, 2011)

At a particular age, the number of teeth can be a significant criterion for assessing a child's development. A cohort study found that teenagers who had more teeth in their oral cavity at a younger age were more likely to be overweight or obese. This suggests that the number of teeth present at the age of 15 months may be a sign of adolescent health. A marker for the eruption of permanent teeth is the number of teeth presents at 6 and 12 months, and dietary and developmental factors may affect how many teeth erupt.(Gonzalez, 2021)

2.2.1 Stages of Teething

Babies often start teething around six months old, though the exact date varies from one child to another. Children go through five phases of teething, and parents can lessen their baby's

discomfort by being aware of what each stage entails. (Girdlestone, 2019).

Stage 1 (0-6 months): 20 primary teeth are present in entire sets in newborns' jaw bones beneath their gums. Since the baby is already nursing on milk, these are frequently referred to as milk teeth. (Elizabeth,*O.* ,2021)

Stage 2 (6-8 months): The baby teeth begin to erupt at this time. Around six months, the lower and upper front teeth start to erupt, however, symptoms of pain and discomfort could be present earlier. (Gridlestone, 2019).

Stage 3 (10-14 months): Babies might get a little appetite loss, a slight temperature, and diarrhea during this time. A baby's sleeping patterns could become less regular. (Elizabeth,*O.* ,2021)

Stage 4 (16-22 months): The canine teeth, which are located in between the incisors and molars on either side, will erupt at this time. To maintain the baby's comfort during this time, the same advice for stages 2 and 3 can be used. (Gridlestone , 2019).

Stage 5 (25-33 months): This phase of teething can be extremely unpleasant for some babies. The largest teeth, the large molars,

develop during this period. (Elizabeth, *O.* ,2021) see figure 2.2

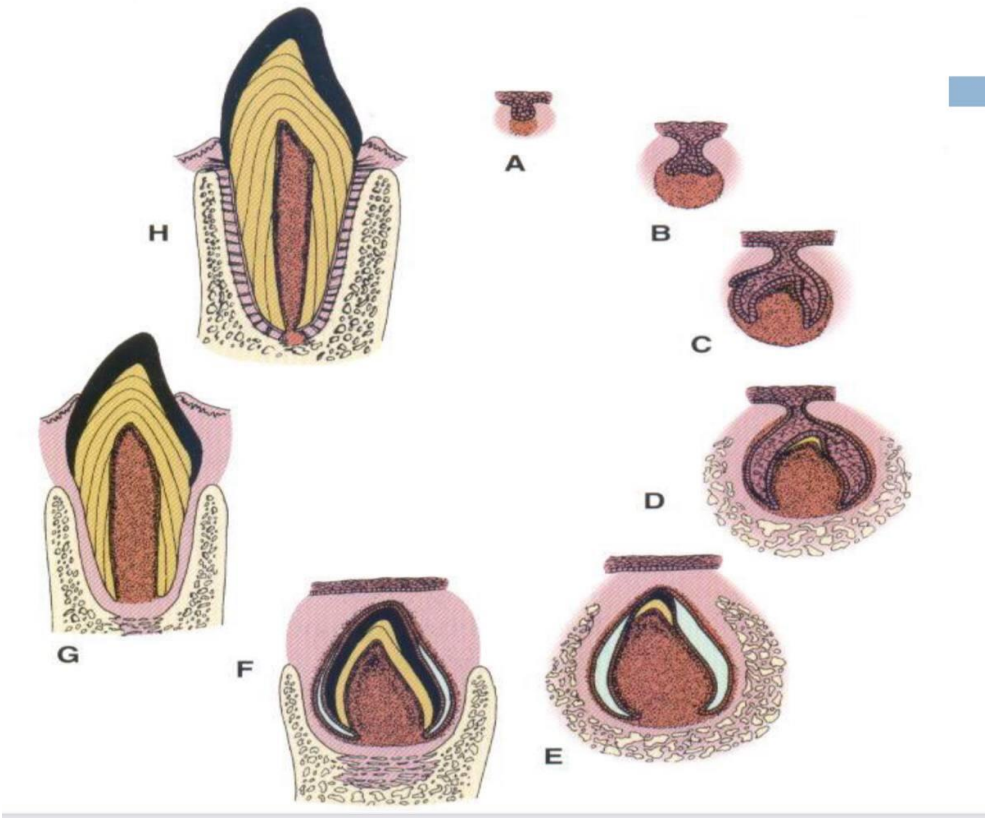


Figure 2.2: development of teeth (Brier, J., 2020)

2.3 Factors Affecting Tooth Eruption

Parents, extended family, and caregivers frequently view a child's eruption of their first primary tooth as a milestone event. This process usually starts when babies are around six months old and is finished when the child is a toddler with a developed primary dentition and is between two and three years old.(Reeve-Brook *et al.*, 2022)

The eruption of teeth is regarded as an essential component of human growth and development, and it is subject to a variety of influences. For instance, it might depict how the human body has evolved generally. The eruption of teeth can also be influenced by factors including heredity, hormones, ethnic-racial-

geographical variances, dietary indices, and gender differences. (Vejdani *et al*., 2015)

Children's tooth eruption is influenced by many variables, such as the length of pregnancy, gender, race, and developmental abnormalities (like cleft lip or palate). Other variables include body height and weight at birth, hormonal changes, nutrition, and general growth. The initial main tooth's timing of the eruption was influenced by birth weight rather than the number of erupted teeth.(Sayed, Elchaghaby and Omar, 2023)

The results show that maternal smoking during pregnancy, socioeconomic status, and physical activity (measured by reported walking speed) may affect the child's primary dentition, adding to the evidence of environmental influences on the timing of primary dentition eruption. Dentition patterns are also influenced by early life circumstances, including birth weight and maternal ethnicity. (Items *et al.*, 2015)

Infants' health and well-being may suffer as a result of differing parental perspectives and cultural customs from throughout the world. The parents' educational background may have an impact on the misconceptions. Higher levels of education among moms have been linked to a better comprehension of teething and the symptoms that go along with it. (Faheem *et al.*, 2022)

There is an ongoing discussion as to whether these are merely symptoms of an association between the eruption of the first tooth and the time when children's immunity from their mothers starts to wane and they start to move around and explore their environment, both of which put the immune system under stress and raise the risk of infection.(Reeve-Brook *et al.*, 2022)

2.4. Breastfeeding and Primary Teeth

Breastfeeding shouldn't be terminated due to biting. A newborn cannot nurse and bite at the same time because the tongue covers the lower teeth while breastfeeding. Babies bite for a variety of reasons, which change depending on the child's age. A newborn may clamp down or, if teeth are present, bite in response to a simple positional adjustment or to slow down an excessively rapid milk flow. When a baby is teething, biting is more frequent, but it is typically a temporary issue that can be resolved with persistence on the part of the mother. Every infant is unique, and the remedy will vary depending on the baby's age and temperament. Many mothers who experience this issue find relief from a teething toy or nursing in a different position. (Lyttle *et al.*, 2015)

Environmental elements like maternal smoking, a newborn's height and weight at delivery, and nutritional status have been proven to influence how the first primary tooth erupts in addition to hereditary variables. Several studies have examined the distinct effects of a child's early nutrition, including breast milk. According to some theories, breastfeeding promotes a healthy mouth and jaw development as well as the hormone secretion needed for healthy digestion. Breastfeeding may speed up the eruption of primary teeth, according to this theory, which has been presented.(Alnemer *et al.*, 2017)

2.5 Misconceptions toward Signs and Symptoms Associated with Teething

Many studies evaluate the frequency of teething symptoms without investigating probable causes of teething-related problems. Additionally, the relationship between specific and general teething symptoms is not well understood; as a result, it serves little use to treat specific local teething issues in different ways. Parents, on the other hand,

choose to employ several types of medicines consistently. Wearing an amber neckless, tying a penny to various spices, taking cold showers, and other potentially harmful measures are some of the ways teething problems are sometimes handled. In addition to bottle feeding or nursing, children receive veggies or frozen baked items to munch on.(Olczak-Kowalczyk *et al.*, 2016)

The appearance of the first set of teeth was regarded as a turning moment in a baby's development. The emergence of a child's first set of teeth can be upsetting for both the child and the parents. The frequency and occurrence of teething-related symptoms vary widely both in their presence or absence. A few infants may have many symptoms. While other people might simply have one or no symptoms.(Almatrouk, 2021)

Low-grade fever and diarrhea. A low-grade fever is, by definition, any temperature between 37.1 and 38.0 degrees Celsius, and a high-grade fever is any temperature beyond 38.0 degrees Celsius. According to the study by Sarrell et al., parents thought teething was linked to a high-grade fever while nurses and doctors thought teething was attributed to a low-grade fever. However, in more recent times. A low-grade fever was included in the list of teething signs and symptoms in the American Academy of Pediatric Dentistry's (AAPD's) perinatal and infant oral health guideline five, which was released in 2021. Many newborns reported no apparent difficulties during this time.(Yuan and Li, 2022)

A temperature of 38.3 C or above qualifies as a fever in children. Uncertainty exists over the parents' knowledge of the distinction between a fever and a slight temperature increase. Parents probably interpret any temperature increase as a fever.(Alkhozaim *et al.*, 2022)

According to Ugandan traditional beliefs, sick dogs should be removed to stop the spread of disease. Ethiopian folklore holds that a worm

in the child's gums may be the cause of the child's fever and diarrhea around the time of the eruption of the milk teeth. Primary incisor eruption (6–12 months) occurs at the same time when the child's humoral immunity is developing and the placental humoral immunity of the mother is declining. Children at this age are therefore vulnerable to a wide range of very mild diseases. (Getaneh *et al.*, 2018)

Irritability: Gums may become more uncomfortable and sorer as the tooth gets closer to the surface. When the molars and primary teeth erupt, the pain and discomfort typically get worse. The larger size of the molars is the cause of irritability. Most of the time, the infant gets used to the pain of teething and gradually tolerates it better.(Zakirulla and Allahbaksh, 2011)

Drooling: Unfortunately, the typical developmental process makes it difficult to analyze data on teething. One illustration is the normal development of the salivary glands, which starts around two to three months of age and contributes to infants constantly drooling, which mothers may mistakenly perceive as a sign of teething.(Oziegbe *et al.*, 2009)

Ear Infections. Medical professionals who worked directly with children in Victoria, Australia, were given a written questionnaire to complete in July 1997. These professionals included pharmacists, general practitioners, pediatricians, dentists, and nurses. Surprisingly, 9 out of 88 physicians and 30–50% of all medical professionals believed that teething made infants and kids more susceptible to diseases like the common cold and ear infections. Due to the predominance of Haemophilus influenzae, acute otitis media affects children the most frequently, however, some parents may mistake this condition for teething. (Yuan and Li, 2022)

Nocturnal Awakening Another typical developmental event moms may mistakenly interpret as a sign of teething is when infants begin to shout out to their parents at around eight or nine months of age.(Oziegbe *et al.*, 2009)

Biting and Gnawing: A baby who is teething will bite on anything they can get their mouth on. Gum pressure is relieved by the counterpressure created when you bite or nibble on something.(Zakirulla and Allahbaksh, 2011)

Other Teething Signs and Symptoms: In addition to pain, swelling of the mucous membrane that covers the tooth, irritability, alertness, face flushing, drooling, gum rubbing, bowel disturbance, loss of appetite, and ear rubbing are some signs and symptoms that are thought to be connected to teething. (Yuan and Li, 2022)

Primary tooth emergence is linked to pediatric health issues. There isn't much evidence to back up this association, though. Each baby has a unique set of teething signs and symptoms. These could be systemic or local. Children may have different local symptoms, such as gum swelling, irritation, redness, rubbing, drooling, thumb sucking, biting, and gnawing.(El-Gilany and Abusaad, 2017)

Although children's teething may cause issues, there is debate over whether or not systemic symptoms are directly related to tooth emergence. Some studies have not been able to establish a link between teething and conditions including fever, diarrhea, rashes, or infections. However, according to other studies, parents and healthcare workers do see some connections.(Memarpour *et al*., 2015)

Nevertheless, there are also a ton of myths and misconceptions concerning teething signs and symptoms, including false assumptions made by mothers and medical professionals about the connection between fever and diarrhea. As early as the fifth century, accounts of the local and general

signs and symptoms of teething began to appear. While some researchers contend that local irritation and a wide range of additional symptoms are linked to teething, others disagree. (Oziegbe *et al.*, 2009)

The association between newborns' teething and local and general manifestations has reportedly been investigated for many years, although pediatric dentists, pediatricians, and parents have all expressed strong opinions on the subject. There have been three major opinion trends in literature: 1) Some researchers think there is a strong connection between teething and general symptoms; 2) Other authors think teething is a physiological process without any connection to local or systemic symptoms, so those symptoms are just a coincidence; 3) Still other researchers think teething can only cause discomfort or an imbalance in the normal physiologic process. (Maria *et al.*, 2013)

However, it doesn't appear that diarrhea, fever, rashes, convulsions, or bronchitis are brought on by teething. Thumb sucking, chewing on one's gum, drooling, and momentary loss of appetite are possible side effects. It's still not clear whether these symptoms have developmental roots or are genuinely connected to tooth emergence. To avoid ignoring a major systemic disturbance, an illness associated with teething should be extensively investigated.(Kakatkar *et al.*, 2012)

It was attractive to see that children's teething pain is substantially correlated with maternal tobacco use. But the same study also showed that mothers' vitamin deficiencies are related to the aforementioned newborn discomfort.(Olah *et al.*, 2020)

2.6 Management of Teething process

The teething process can make babies quite uncomfortable as well as parents worry and get anxious. As a result, parents can choose from a variety of treatments. During this process, pharmacological or non-

pharmacological treatments may be provided, but no data on their effectiveness have been acquired. (Canto *et al.*, 2022)

For parents, especially new parents, the teething process for infants may be a frustrating and stressful time. More and more parents and other adults are using the internet to research the medical needs of their children. Local physiological changes brought on by teething may be inflammatory or irritative. For the pain associated with teething, the American Academy of Pediatrics advises giving parental assurance, massaging the gums, utilizing teething rings, and taking acetaminophen for 24 hours. But the consequences of teething on baby health have long been debated, and conventional wisdom on the subject is still not entirely confirmed by research.(Haznedaroglu and Mentes, 2016)

There is a notion that fever and diarrhea are related to the teething process, however, this is untrue. This is a very risky belief since they might not rule out other potential causes of symptoms like fever and diarrhea, failing to treat the child as necessary as a result.(Olah *et al.*, 2020)

Few clinical trials can be used to evaluate appropriate and efficient treatment strategies in the literature. Because there is no agreement among pediatric dentists regarding the best and safest procedures, some treatments are left up to parental preference. During this process, pharmacological or non-pharmacological treatments may be provided, but no data on their effectiveness have been acquired. (Canto *et al.*, 2022)

Professionals currently have two options for therapeutic management. The non-pharmacological management strategy should be the preferred method and entails applying pressure to the sore mucous membrane using things like solid silicone teethers or frozen fruits and vegetables. Pharmaceutical therapy, on the other hand, is limited to the

systemic use of analgesics and/or topical medicines such as local anesthetics using medications based on lidocaine.(Cota *et al.*, 2022)

In general, symptoms of the disease like fever (38.9° C), vomiting, or diarrhea are not signs of teething but rather of illness and may call for additional research. Cold is calming because inflammation is what causes teething pain. Inflammation can be reduced by giving the child a cold teething ring (do not freeze liquid-filled teething rings). There are many topical anesthetic ointments that don't require a prescription, such as Baby Oral Jell, but parents and medical professionals should be aware of the dangers of using them because newborns absorb topical anesthetics at different rates. **(**Marilyn, H., & David, W., 2013).

Parents use a variety of pharmacological and non-pharmacological methods to try to prevent teething symptoms, but these methods can be harmful because they are aggressive or have unintended consequences for children. For instance, they can increase gingival volume, cause cautery ulcerations or puncture gingival tissue to encourage tooth eruption. (Pereira *et al.*, 2023)

The majority of over-the-counter medications used to treat teething pain or discomfort are not prescribed by dentists; instead, they are frequently used. Other preparations, such as herbal remedies, are passed down through generations. Most teething therapies fall into one of two categories: pharmacological or non-pharmacological.(M, 2014)

2.6.1 Historical Management of Teething:

Hippocrates asserted that children going through teething experienced diarrhea, fever, convulsions, and itchy gums, particularly when cutting their canines. Infant mortality was very high in earlier eras. When teeth begin to erupt, usually between the ages of 6 and 4, this peals at its

peak. Therefore, it was assumed that teething was the reason for the passing. In the past, caregivers have used a range of methods to alleviate the symptoms of teething discomfort, including putting leeches on the gums, using cautery on the back of the head, blistering, and giving children systemic medications. (Namola *et al*., 2015)

Lancing the overlying gingival tissue, putting leeches on the gums, wearing necklaces, blistering, bleeding, cauterizing the back of the head, rubbing the gingiva with various animal extracts, prescribing or using heavy metal, salts, or opiates are just a few of the many and varied historical remedies used to relieve teething-related signs and symptoms in the past. Others recommended wrapping the child's neck in wolf or viper teeth. Others, on the other hand, advise kids to chew on tough objects like roots or silver spoons if they are fortunate.(Almatrouk, 2021)

Before now, Unani treatment was included to treat the discomfort and anguish brought on by teething, rabbit brain is prepared as a liniment or Tila and applied to the gums. This also increases the child's appetite. The Pearl of Yaafuhalyaas is stored in a leather object that is fastened to the child's arm. It will ease and lessen the discomfort of teething.(Quddusi *et al*., 2020)

Parental attitudes and behaviors about teething vary greatly between cultures and regions. The primary canines are thought to be dangerous and should be removed among Ugandans. Gum drilling and tooth extraction are prominent traditional methods used in Ethiopia to treat teething symptoms. None of these behaviors have been documented in research among Nigerians.(Olatunya *et al.*, 2020)

fat, cow bone marrow, and rabbit brain. Warm Roghan-e-gul combined with Inabus Salab (Solanum nigram Linn.) extract is applied to the gums if the discomfort is severe. With the aid of a dropper, lablab

(Dolichos lablab Linn.) gravy is consumed in the diet. Honey applied to the gums can make teething easier. Honey has sedative and anesthetic properties. (Quddusi *et al*., 2020)

2.6.1.1 Lancing

Previously, lancing was widely used to treat delayed eruption or teething problems, but with the development of medical research, this practice was abandoned. Lancing can also result in enamel abnormalities, tooth deformities, and changed mandibular size, according to the research. (Amjad et al., 2022)

Ambroise Paré, a French surgeon, developed the teething treatment method in the sixteenth century. Joseph Hurlock, the author of a book on teething, supported it. Hurlock recommended applying gum lancing to all diseases, whether or not the teeth were visible. Gum lancing is still regarded as a recognized tradition and widespread practice in several societies. (Pollak, 2017)

2.6.1.2. Systemic Medicaments

In the sixth century, remedies for teething included consuming dog's milk, consuming or applying hare brains to the gums, and using charms and amulets. Even when a youngster appeared vomiting and diarrhea, purgatives and emetics were frequently used as therapies in the 18th and 19th centuries. Bromide, lead, opiates, mercury salts, honey, and salt were some other common cures. But due to their well-known toxicities, such therapies are no longer employed in modern times. Recently, it has been suggested that pharmacological and nonpharmacological methods can be used to treat teething, however, this has not yet been demonstrated. (Namola *et al*., 2015)

All of the aforementioned treatments were declared ineffective. Mercury causes vomiting, diarrhea, and renal failure; emesis, purgatives, and salt can induce dehydration; honey can cause tetanus; opiates cause somnolence and respiratory depression; lead can cause paralysis, encephalopathy, and seizures; and opiates can cause somnolence and respiratory depression. Finally, bromide causes seizure and hallucinations. To control the teething process, ancient people have also been known to use talismans or other phylactery.(Almatrouk, 2021)

2.6.1.3. Unsafe teething remedies:

1.Teething Gels with Benzocaine:

Parents are recommended not to apply topical numbing cream containing benzocaine to children under the age of two, unless under the direction of a doctor. Methemoglobinemia, a dangerous illness that can be fatal, can be brought on by benzocaine. (Wosu, U. N., 2016)

Another study showed that parents can take a variety of techniques to manage and reduce teething discomfort. Chewing on a hard item, such as a chilled teething ring or frozen fruit or vegetable, topical anesthetic treatments using choline salicylate or powders containing benzocaine, and analgesics such as paracetamol, for example, could help reduce pain. To avoid misdiagnosis and incorrect sickness management, it is critical to distinguish between scientific facts and parental views about teething.(Almatrouk, 2021)

2.Baltic Amber Teething Necklaces

Caregivers have a variety of options for treating infants' and toddlers' alleged teething problems. Some are dangerous, such as teething necklaces made of amber or hazelwood. Teething necklaces are dangerous since they have been linked to suffocation mishaps and even fatalities.

According to recent research, these necklaces pose a mechanical risk to young children. (Abdulsatar *et al*. , 2018)

The amber necklace first appeared on the global market in the middle of 2011 as a "natural" medicinal substitute for the alleviation of local discomforts. Amber stone spheres, which are worn as a necklace, bracelet, or even an anklet, are said to work as a bio-transmitter because they emit succinic acid upon touch and heat. The acid would have local analgesic and anti-inflammatory properties when absorbed by the skin. To get the desired therapeutic impact, manufacturers advise consumers to use a product consistently and for an extended period.(Cota *et al.*, 2022)

For the relief of teething pain, Baltic amber teething necklaces have gained popularity as a secure and organic substitute for synthetic or conventional medications. However, the efficacy and mechanism of action claims made by retailers about these necklaces lack any scientific or clinical support. The claim that succinic acid will leak out of the beads and through the wearer's skin and have analgesic and anti-inflammatory effects is the one that most nearly resembles science. (Nissen *et al.*, 2019)

There is no proof that these beads could release the succinic acid component into human skin. Furthermore, succinic acid's anti-inflammatory effects on pain alleviation are not supported by scientific research. Additionally, there is a serious safety risk associated with these necklaces. Both the Canadian Pediatric Society (CPS) and the American Academy of Pediatrics (AAP) prohibit the usage of teeth necklaces and bracelets due to comparable safety concerns.(Almatrouk, 2021)

The American Academy of Pediatrics (AAP) and the Canadian Paediatric Society (CPS) have similar concerns and advise against using risky teething aids like teething necklaces, topical anesthetics, and liquid-filled teething rings. (Abdulsatar *et al*. , 2018)

3. Homeopathic Teething Tablets: After numerous reports of newborns and toddlers experiencing seizures after ingesting teething tablets and gels, the Food and Drug Adminstration (FDA) advised parents to avoid using them in the latter half of 2016. (Wosu, U. N., 2016)

2.6.2.Methods for Management of Teething

There are several ways to deal with teething: Analgesics, antipyretics, topical anesthetics, chilled teething rings, hard, sugar-free teething rusks/breadsticks, frozen fruit and vegetables, reassurance, stroking gums with chilled spoons/clean fingers.(Lyttle *et al.*, 2015)

2.6.2.1. Non-pharmacological Management

Memarpour et al. looked at five treatments for teething symptoms: cuddle therapy, ice, gum-rubbing, teething rings, and chewable food. During the trial, the mother's satisfaction with the treatment as well as the mother's teething symptoms, the type of erupted teeth, and recovery symptoms were assessed. They discovered that the use of teething rings, followed by cuddle therapy and stroking the gums, produced the best results for time to recovery and the mother's pleasure.(Pollak, 2017)

Teething rings can temporarily ease the pain. The ring should be initially frozen to near-freezing temperatures for the greatest amount of comfort. To reduce the risk of strangling and to prevent the ring from getting lost in the bedding or being dropped, teething rings should be affixed to the child's garments rather than around their neck. Rings made of solid silicone are preferred to fluid-filled ones that might leak. To ensure that the teething ring contains only inert materials, the box for the ring should be examined. Regarding the usage of pacifiers, many parents have rigid viewpoints and ideas. (Lyttle *et al.*, 2015)

Parents' first choices for treatment are non-pharmacological approaches like homeopathy and calming teas like chamomile used for local massages because they are regarded as safer and less likely to have side effects. (Canto *et al.*, 2022)

Non-pharmacological methods try to soothe the teething spot by rubbing it or by chilling it. By constricting dilated blood vessels and momentarily numbing the gingivae, cooling may relieve inflammation. On the other hand, chewing pressure and gingival massage may lessen pain by overriding the sensory receptors.(Annetta K.L. Tsang1, 2010)

Some naturopathic doctors advise mixing salt and honey for this. This aids in stomatitis prevention as well. The use of equal parts butter and honey is also helpful throughout the teething stages. When gums are in excruciating agony, Mako (Solanum nigram Linn.) leaf juice mixed with Roghan-e-gul is administered.(Quddusi *et al*., 2020)

Children who are teething may also exhibit several additional symptoms. Drooling, swollen gums, rhinorrhea, and loss of appetite are some of them. There are many ways to address these symptoms, including using soothing bottles and massaging the gingiva. The amount of education of mothers has also been linked to their attitudes regarding this subject. The prevalent misconception that newborn discharge was caused by teething was the subject of a study in Africa. But this information is untrue.(Olah *et al.*, 2020)

Mothers' awareness of teething symptoms was linked, according to another study carried out in Nigeria. The general knowledge of those mothers was found to be satisfactory. It was intriguing to learn that they had employed a variety of treatments to give their infants relief. Among these treatments were teething syrup, teething powder, traditional herbs, and a combination of all of them.(Olah *et al.*, 2020)

Aetios of Amida suggested boiling or roasting rabbit brain as a therapy for teething in the sixth century AD. Soranus of Ephesus, a Greek physician, suggested spreading olive oil along the gums in 117 AD. Olive oil was used for this purpose up to the sixteenth century, in fact. Galen, a physician to five Roman emperors from 129 to 199 AD, advocated the use of camphor, chloroform, mustard baths, and local massage. (Pollak, 2017)

Alternatives to medication these methods either seek to chill the teething spot or rub the place. By forcing dilated blood vessels to constrict and momentarily rendering the gingivae numb, cooling can relieve inflammation. By overriding the sensory receptors, pressure from chewing and gingival massage, in contrast, may lessen pain.(Annetta K.L. Tsang1, 2010)

Numerous communities have recorded their traditional teething techniques. It was discovered that canine tooth bud enucleation was a widespread procedure. Some common concoctions, which are known to be bicarbonate soda treatments blended with regional herbs, have been claimed to comfort young children's gums. Mothers' beliefs about teething have been connected to delays in seeking medical attention for diseases that mothers frequently mistakenly identify with teething. Additionally, several studies have shown that newborn oral mutilation, which takes many different forms, is linked to mortality from infections and hemorrhage.(M, 2014)

A. Teething Ring

Children can bite on a variety of teething rings available on the market. Parents are typically urged to carefully examine the packaging for any potentially dangerous materials used in manufacturing. Since severe temperatures can harm plastic material and cause fluid leakage, solid silicone-based tooth rings are preferable to their liquid-filled equivalents.

Additionally, it's not advisable to connect teething rings to an infant's clothing or wrap them around the child's neck to prevent strangulation.(Almatrouk, 2021)

Infants' irritability has been reported to be somewhat reduced with no side effects from gum rubbing or the usage of teething rings. Recent studies have shown that teething gels can relieve discomfort when applied to the gums with a clean finger. This is especially true if the composition contains hyaluronic acid (HA).(Di Pierro *et al.*, 2022)

Teething rings may temporarily reduce pain. The ring should be initially frozen to near-freezing temperatures for the greatest amount of comfort. Rings made of solid silicone are preferred to fluid-filled ones that might leak. To ensure that the teething ring contains only inert materials, the box for the ring should be examined. Regarding the usage of pacifiers, many parents have rigid viewpoints and ideas.(Lyttle *et al.*, 2015)

The pressure that is created when the teething ring is chewed, which is at its greatest when cooled, temporarily relieves discomfort. If a teething ring contains liquid, it should be chilled in the refrigerator rather than the freezer. It should also not be sterilized in hot water or the dishwasher (unless the manufacturer specifies otherwise). These ought to be sewn onto the baby's clothing rather than tied around the child's neck to prevent strangulation. (Sood *et al*., 2010)

Teething rings that are chilled (not frozen) provide momentary pain alleviation by pressure, coolness, and distraction. You can attach teething rings to your baby's clothing, but you should never tie anything around their neck because it could lead to strangling.(Panwar *et al*., 2022)

Chewing exerts pressure that temporarily reduces discomfort. The best outcomes are obtained when the rings are cooled; solid silicone teething rings operate better than liquid silicone teething rings. Numerous

babies discover that chewing on breadsticks, frozen bread, fresh and frozen fruits, and veggies helps to reduce their discomfort. Giving pacifiers to their young children causes significant emotions in many parents.(Pruthi *et al.*, 2023)

B. Reassuring

As teething is a normal physiological process, alerting the parents of the signs and symptoms can also be one of the most effective ways to help them relax. However, infants with major systemic diseases should be seen by a doctor right once for an accurate diagnosis and treatment.(Almatrouk, 2021)

2.6.2.2. Pharmacological Management

Analgesia, anesthesia, sedation, or a mix of these are frequently used as pharmacological teething methods. Despite the availability of several drugs, there is currently little proof that they are useful for reducing teething pain. Most parents don't typically prepare prescriptions for teething. However, there are some effective systemic and topical preparations available if the local intervention is unsuccessful in providing relief. To prevent iatrogenic oral mucosal injuries, topical medications such as choline salicylate gels, lidocaine HCL, powders containing benzocaine, and paracetamol should be applied with caution.(Almatrouk, 2021)

Most of them contain benzocaine as their main active component, which might sporadically result in methemoglobinemia. Parents are urged to properly apply such products if they are used. Systemic analgesics like acetaminophen or ibuprofen can be administered (if age appropriate) for no more than 3 days in the event of persistent irritability that interferes with sleeping and feeding; however, parents should be aware that this is only a temporary solution and should contact

the practitioner if symptoms persist or if the child's condition changes. **(**Marilyn& David, 2013)

Drugs like analgesics or local anesthetics carry a high risk of toxicity when administered carelessly by parents, so even though they can be used to treat the signs and symptoms of tooth eruption, their use can be viewed as risky.(Canto *et al.*, 2022)

Because there is a risk of ingesting the powder, causing tissue infection or irritation, or ingesting or aspirating the aspirin, teething powders and methods like cutting or rubbing the gums with salicylates (aspirin) are not recommended. Hard candy should be avoided at this age since it could result in inadvertent choking or aspiration. **(**Marilyn, H., & David, W., 2013)

Pharmacologically speaking, treatments for teething often seek to induce drowsiness, analgesia, or a combination of these. A variety of over-the-counter medications are available, but there is currently no proof that they are effective in reducing teething pain.(Di Pierro *et al.*, 2022); (Annetta K.L. Tsang1, 2010)

Mothers frequently use systemic and topical analgesics, as well as antibiotics, to treat teething discomfort. Additionally, they let their kids bite things to alleviate symptoms. Many medical and non-medical (traditional or alternative) techniques are used as teething remedies without visiting a dentist or doctor.(Ahmed *et al.*, 2021)

A. Systemic Analgesics

The systemic medication used to treat pyrexia and relieve discomfort is sugar-free paracetamol elixir. The Dental Practitioner Formulary (DPF) recommends taking 60-120 mg of paracetamol every three to twelve months. 120–250 mg for 1–5 years. Only a doctor's advice

is required, according to the British National Formulary (BNF), to prescribe paracetamol to infants less than three months.(Pruthi *et al.*, 2023); (Almatrouk, 2021)

Acetaminophen, often known as paracetamol, is frequently used to treat symptoms such as teething discomfort. By suppressing cycloxygenase-3 in the central nervous system, it lowers prostaglandin synthesis. The peripheral blockade of nociceptive impulses and their production cause analgesia. The central suppression of the hypothalamus heat-regulatory center causes antipyresis. Additionally, paracetamol lessens hyperalgesia by lowering nitric oxide and substance P production.(Annetta K.L. Tsang1, 2010)

Acetaminophen or ibuprofen use can lessen or stop the discomfort and suffering associated with teething.(Di Pierro *et al.*, 2022)

B. Topical agents

They include local anesthetics—typically lidocaine-based preparations and weak analgesics (such as choline-salicylate-based preparations, though their usage is debatable). quick, albeit transient, pain relief is provided by the quick absorption of lidocaine hydrochloride through mucosal membranes.(Lyttle *et al.*, 2015)

C.Lignocaine and Benzocaine

These local anesthetic ingredients are frequently used in teething remedies. Both work by reducing sodium ion channel permeability in neuronal membranes, which inhibits depolarization as well as the propagation and conduction of nerve impulses. Lignocaine (or Lidocaine) quickly penetrates the oral mucosa because of its amino-acyl amide structure. 5% lignocaine gel might provide momentary pain relief. Anesthesia starts to take effect on the mucosa within 2 to 5 minutes, lasting

for 10 to 20 minutes. The blood levels of lignocaine following topical application are comparable to those after intravenous injection. When used as directed, this medication seldom causes side effects.(Annetta K.L. Tsang1, 2010)

Teething remedies frequently contain local anesthetic ingredients, such as 20% benzocaine. Benzocaine is generally not advised due to the risk of methaemoglobinemia and because it may interfere with the infant's gag reflex, which could result in choking.(Di Pierro *et al.*, 2022).

D.Choline Salicylate-Based Products:

According to several writers, these products are superior to lignocaine-based ones because they have analgesic, antipyretic, and anti-inflammatory actions, which reduce swelling.(Pruthi *et al.*, 2023)

E. Lidocaine-Containing Products

The list of items that included lidocaine that was taken into consideration is shown in the following table:

Table2.1: Items that included lidocaine. (Agency, 2018)

Product name	Lidocaine %(w/w)	Product lidocaine number
Lidocaine-containing products authorized for teething		
Anbesol® Teething Gel	1.00%	PL 16853/0126
Anbesol® liquid	0.90%	PL 16853/0128
Bonjela® Teething Gel	0.33%	PL 00063/0048
Bonjela ® Junior Gel	0.50%	PL 00063/0657
Boots ® Teething gel 3 months+	0.60%	PL 00014/0392
Calgel® Teething Gel	0.33%	PL 15513/0015

Dentinox® Teething Gel	0.33%	PL 00133/5010R

To treat children's teething, the Medicines and Healthcare Products Regulatory Agency (MHRA) has updated its recommendations. Additional steps will be implemented, and oral lidocaine medications that have been approved for teething are becoming pharmacy drugs. (Agency, 2018)

F. Teething Powders

to traditional usage, teething powders are a traditional herbal medical medication used for the relief of teething discomfort and related symptoms. They are delivered orally and contain herbal tinctures by forcing the powder into your baby's mouth. They assert that doing so will lessen the symptoms. (Teething guide.N.H., 2017)

G. Teething Gels

A moderate local anesthetic is frequently found in teething gels, which helps to relieve any pain or discomfort brought on by teething. By applying sugar-free teething gel to your baby's gums, you can help avoid infection in any sore or broken skin in their mouths because the gels may also contain antiseptic chemicals. (Teething guide.N.H., 2017)

2.6.3. Teething treatment/advice can be provided.

The process of teething is common. The current National Institute for Health and Care Excellence (NICE) summary for teething suggests easy self-care techniques as the initial steps in relieving any discomfort. These include giving the youngster permission to bite on a clean, cool object and gently stroking the gum with a clean finger. For infants 3 months of age or older, paracetamol or ibuprofen suspension, supplied following the approved indication and dosage, can be taken into consideration if necessary. In case the child is unwell or if the symptoms do not improve, parents or other caretakers have to consider seeking advice from a

healthcare professional. Do not take oral lidocaine drugs that are prescribed for adult usage or other ailments.(Agency, 2018)

For the treatment of teething issues, there are many baby remedies or syrups on the market. Ajwain Desi (Trachyspermum ammi (Linn.) Spragne), Zanjbeel (Zingiber officinale Roscoe), Pudina Khushk (Mentha arvensis Linn.), Zeera Safaid (Carum carvi Linn.), Badiyaan (Foeniculum vulgare Mill.), Tukhm-e-Shibbat (Anethum sowa Roxb. These medications aid in preventing numerous teething-related symptoms.(Quddusi *et al*., 2020)

2.6.4. Alternative Holistic Medicine

By instructing the parents to press on specific skin areas, acupressure temporarily relieves teething pain. Massage with essential oils like olive oil, tea tree oil, or clove oil will help to reduce the inflammatory mediators caused by teething. Homeopathy management: This therapy's key benefit is its ability to correct movement, calm the kid, and ease restlessness during teething. The topical application of silver diamine fluoride is a novel technique and powerful tool for halting caries in primary teeth.(Pruthi *et al.*, 2023)

2.6.5 Teething Practices That Should be Avoided

Dip a dummy in honey or add sugar, honey, or jam to the tip of a baby's bottle. This will result in tooth decay and not aid with pain relief. Include supplements in your child's food or formula. the wearing of amber jewelry since it increases the risk of choking. (Panwar ., 2022)

Parents should be informed that applying alcohol topically to an infant's mucous membrane regularly is not advised because it can result in hypoglycemia due to the infant's low body weight(Almatrouk, 2021)

2.6.5 Suggestions to Relieve Aches Associated with Teething

A chilly object, such as a cold apple or a firm rubber teething ring, may help to relieve the discomfort. A cool, damp washcloth applied gently to the gums may also be soothing. Because infection could result, the gums shouldn't be sliced to help teeth erupt. Give the baby plenty of water or juice that has been diluted when dribbling is excessive to replenish fluids. A change of environment, lots of hugs, or a game can also divert a baby's focus away from discomfort. Aspirin and teething powders should be avoided.(Quddusi *et al*., 2020)

2.7 Previous Studies:

The First Study:- ''MS. Parental Myths, Beliefs, Awareness and Practices Regarding Teething in Infants ''. Conducted by (Amjad *et al*., 2022) to learn about parental strategies used to help children who are having teething problems and to look into parental views, myths, and knowledge about teething. It was found that 87.5% of the parents said that it was difficult for them to control their teething youngsters. General irritation was the sign and symptom that parents described as occurring the most frequently , followed by diarrhea and the desire to chew or bite on something . It's interesting to note that parents believed, respectively, that an early eruption is a sign of the child's intelligence and a symptom of a cursed family. Few parents still report this problem, although teething myths and incorrect parenting techniques can be harmful to children's health. Therefore, it is necessary to address this issue and dispel myths with the assistance of dental health specialists through parental education.

The Second Study:- was entitled **''Misconceptions and Cultural Practices toward Infant Teething among Mothers Visiting a Public Dental Hospital''.** By (Faheem *et al.*, 2022)**.** This study sought to identify mothers' knowledge of children's teething processes, associated symptoms, adopted cultural practices, and medications used to treat these

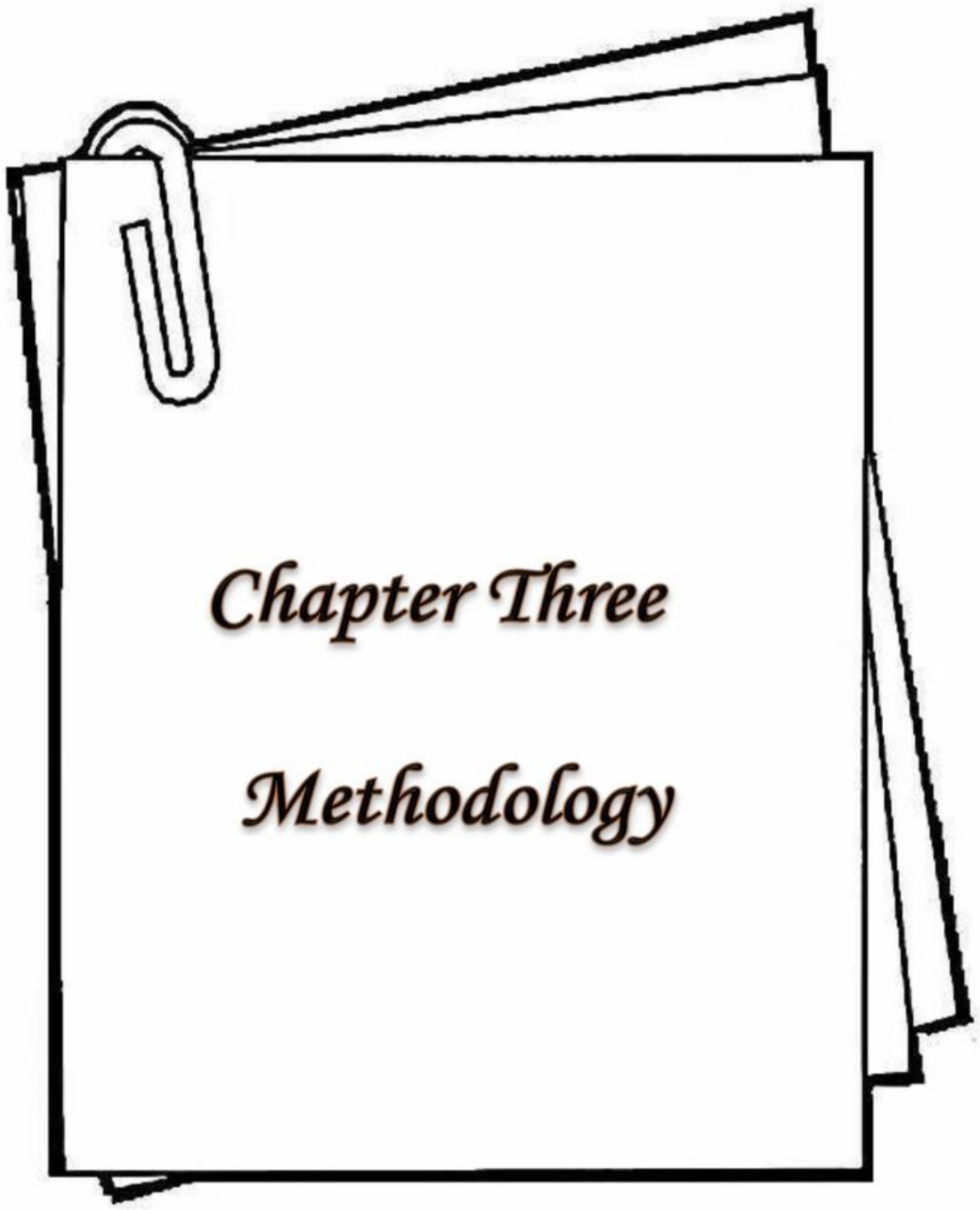
symptoms . It was found that the majority of mothers did not relate the symptoms of teething to their older infant or siblings, and this was related to the level of education of the mothers. In this study, the degree of mothers' education was directly connected with their awareness of teething symptoms. Mothers without a formal education were more likely to have false assumptions about teething, such as the connection between diarrhea and fever and the usage of teething medications. During the teething stage, half of the moms gave paracetamol, but part of the other half was dependent on hazardous unregulated homeopathic remedies.

The Third Study: " Parents' Perception Toward Infants' Teething in Dubai, United Arab Emirates ". conducted by (Almatrouk, 2021) In Dubai, United Arab Emirates (UAE), this study examined parental methods to treat teething symptoms and evaluated parental knowledge and views on the teething phase. It was show that the most common teething symptoms mentioned by parents were increased drooling, the need to bite, gum discomfort, fever, and sleep disturbance. The participants' ages greatly affected their level of knowledge on teething, with the middle-aged group having more expertise. ($p = 0.045$). The majority of parents had erroneous ideas about the symptoms that commonly appear during teething. Dental healthcare professionals should educate parents and other healthcare professionals about the teething process and the management of its potential signs and symptoms because parents frequently lack knowledge about teething.

The Forth Study:" Infants Teething Problems and Mothers' Beliefs in South East of Iran ". Was conducted by (Miri-Aliabad *et al*., 2021). This study attempts to ascertain mothers' attitudes toward the symptoms and indicators of teething in newborns. Each mother connected teething with at least one symptom. Gum rubbing , biting things , restlessness and irritation , fever , drooling , and diarrhea , were among the

mothers' beliefs in this study. When parents are distracted by teething symptoms like fever, diarrhea, restlessness, and irritability, this can delay the identification and treatment of serious infections.

The Fifth Study :- A study conducted in Basra by (Yousif, 2020) on "**Mothers' false beliefs and myths associated with teething** ". Which aimed to evaluate mothers' attitudes toward teething and look at the methods they prefer to use to treat any symptoms that might occur throughout the teething period. The teething process was related to at least one symptom or sign by each participant in the study. Fever , sleep disturbance and diarrhea were the three most frequently reported symptoms. Mothers with different levels of education reported symptoms that they attributed, and the outcome was statistically significant (p 0.05). The tendency to blame teething for symptoms was found to be higher in first-time mothers than in mothers with prior child-rearing experience. Mothers frequently hold misconceptions and illusions about teething. Despite the absence of proof, the survey found that a sizable number of doctors, dentists, and pharmacists continue to blame many symptoms and indicators on teething. The results of this study emphasize the necessity of nationwide prospective studies and ongoing medical education to dispel these unfounded assumptions.



Chapter Three

Methodology

Chapter Three

Methodology

This chapter designates the methods which considered a means to achieve the objectives settled for the purpose of the study.

3.1. The study's Design

The descriptive research design approach's objective is to describe the researched phenomenon in terms of its nature and extent of occurrence by interviewing members of the study population. The descriptive technique involves questioning research participants about mothers' misconceptions and traditional practices towards infant teething symptoms, in Babylon Governorate during the period from November 9th, 2022 to Jun 20th, 2023. The appropriate approach is descriptive and analytical study designs, which depends on a study of the phenomenon and a description of its features and measurement, as well as data collection and interpretation. This is because the study's problem is current, will be investigated through direct interrogation, and will terminate at the study variables' description limit misconceptions and traditional practices.

3.2. Official Approvals

Before collecting study data, the following formal approvals have been obtained from the appropriate authorities:

1. The "Babylon University college of Nursing" presented a seminar before the Higher Studies Committee in order to obtain the first permission.

2.approval of the study by the University of Babylon's College of Nursing Council's ethics committee (Appendix A1).

3.In order to legally enter the Primary Health Care Sector, approvals were also acquired from Training and Development Department of the Babylon Health Directorate (Appendix A2).

4.Official approval has been received from the primary healthcare sector, including: Hilla Sector II of Primary Healthcare (Appendix A3).

3.3. The Study's Setting

The research was conducted in Primary Health Care Sectors in Hilla City/Babylon Governorate. These sectors are cited Hilla Sector II. The Babylon Health Directorate identified this sector and primary healthcare facilities as a doorway to provide clients health services and the first cycle that examines, diagnoses, etc. The mother and child care systems made up the largest portion of these facilities, along with clinics for elderly people with chronic diseases, clinics for family planning and early detection of breast cancer, and clinics focused on the significance of attaining and adhering to vaccination schedules. See table 3-1.

Table3-1.Distribution of Hilla Sector II for Primary Health Care Centers

Hilla Sector II for PHCs	
Babylon Training Center	AL-Bu Musaad
AL-Furqan	AL-Kadia
AL-Kalesa	Al-Ghadeer
Murjan	AL-Jumjma
AL-Wardya	AL-Dolab
AL-Zahra	Anana
Senjaar	AL-Hadi
AL-Sadaa	AL-Nahda

Al-Atayej	Shuhada' Nadir
Al-Kawthar	Aisilah Alkibar
Al-Kwaikhat	Athar Babil
Howaish Al-Sayed	Albu Himyar
AL-Baqer	Said Musa
Total=26	

3.4. Sample of the Study

Through the use of a non-Probability sampling approach, a purposive sample of (180) mothers is chosen. The study consists of (5) primary health care centers is selected randomly for purpose of study. Mothers who visited Al-Hilla city primary health care clinics are included in the study's sample as shown in table (3-2**) .**

Table3-2. Distribution in Hilla Sector II of the research sample

Primary Health Care Sectors	**Primary Health Care Center**	**No. of Health Care Providers Selected**
Hilla Sector II for Primary Health Care	Babylon Training Center	40
	AL-Zahra	35
	AL-Nahda	35
	AL-Kadia	40
	AL-Kawther	30
Total= PHCs	Total= 5 PHCCs	Total=180 Mothers

The following criteria are used to identify the mothers who visited primary health care facilities, including:

3.4.1. Inclusions Criteria:

1. Mothers of infants from 6 months to 3 years who experiencing teething symptoms.

2. Mothers who agree to be included in the research sample

3.4.2. Exclusion Criteria:

Mothers who participated in the pilot research.

3.5. Study Instrument

The questionnaire has been designed and constructed by the investigator after reviewing and modification of related literatures and previous studies (Ahmed *et al*.,2021; Awadkamil,2012). The researcher created this questionnaire in order to obtain responses to the study's questions in order to clarify the study's objectives and relevance. The questionnaire is a tool used to assist in the collection of data that will contribute to the study's anticipated conclusions. As a result, the researcher created the questionnaire items for the current study. The study is divided into the following sections based on a thorough analysis of similar studies and the literature that is currently accessible. **(Appendix B)**

1st Part: This section contains socio-demographic data. The first seven items concern the mother and include her age, educational level, occupation, place of residence, number of children, a question for the mother if she has information about teething, and information sources. The second three items concern the child and include the child's age, gender, and type of feeding.

2nd Part: This section deals with mothers' conception towards infant's teething symptoms. A total of (11) items measured on 3-level of Likert Scale (*3=I Know, 2=Uncertain, 1=I don't know*). Accordingly, points can be taken range from 11-33. The higher average defined as a high level of conceptions.

3rd Part: This section addresses mothers' misconceptions about teething symptoms. A total of (15) items measured on 3-level of Likert Scale (*3=Agree, 2=Neutral, 1=Disagree*). Accordingly, points can be taken range from 15-45. The higher average defined as a low level of misconceptions.

4th Part. During teething symptoms, traditional practices are used. A total of (14) items measured on 3-level of Likert Scale (*3=Always, 2=Sometime, 1=Never*). Accordingly, points can be taken range from 14-42. The higher average defined as a good practice.

The researcher followed the guidelines when creating the questionnaire because of the significance of the information type that the researcher has established to be adequate, comprehensive, and reliable for all sections of the problem. to imprecise and intricate answers. The response phrases should be appropriate because the questions were closed-ended.

3.6. Validity of the Instrument

While the validity of the questionnaire refers to its ability to measure the things it was intended to explore, sincerity refers to both the inclusion of all factors that must be taken into account in the analysis in the questionnaire on the one hand and the clarity of its contents on the other. On the other hand, the terminology should be understandable to all users.

The questionnaire was presented to a group of (15) experts from various nursing disciplines to ensure its validity. These specialists are: Six professors from University of Babylon /college of nursing. Two pediatricians and academic staff from University of Babylon/college of medicine. Three professors from the university of Baghdad/ college of nursing . One professor from the University of AL-Kufa/ College of Nursing. One professor from the university of Dhi-qar / college of nursing. One academician from University of Karbala/ college of nursing. lastly, a teaching member from the Al- Mustaqbal College University department Nursing.

The (Appendix C) details how the expertise's suggestions and opinions were taken into consideration. Each study questionnaire item was evaluated by experts for its linguistic relevance, connection to the dimensions of the study variables assigned to it, and suitability to the study community's context.

The comments from the experts suggested making minor adjustments to a number of issues, and those changes were made as required with their suggestions before the last draft was finished and prepared for the research.

3.7. Pilot Study

This pilot study was carried out to assess the study tool's reliability, consistency, and clarity, as well as its effectiveness and the typical period of time required to gather data for all participants, which may be approximated throughout the interviewing methods, and to detect any potential challenges that may arise

The following targets were sought after by the pilot study.

Testing and creation of adequate research tool. A viability assessment of the instrument. Identifying any logistical problems that may

arise as a consequence of the suggested approaches. Evaluation of suggested analysis of data techniques for the identification of possible problems. Estimated time spent by the individual conducting the study gathering data.

The Findings of the Pilot Research

1. It is valid to use the questionnaire.

2. The questionnaire took between (15 – 20) minutes to complete.

3. The study's fundamental idea was clearly comprehended, and the tool components were clear. (Table 3-2).

The following phases were completed by the questionnaire before it took on its final form:

1. Choosing the information that will be acquired through the questionnaire based on the objectives of the research.

2. Choosing the questionnaire's format and technique.

3. Identifying the criteria that determine the questionnaire's response types.

4. Presenting the questionnaire to the supervisor so that she can share her thoughts and views on how the questionnaire was developed and how it might be modified in light of those considerations.

5. Distributing survey forms for different panels of experts for their input and observations during the development of the questionnaire and updating it in light of what they provided.

6. Sending the questionnaire to a sample of 18 mothers to carry out a reliability test on it.

7. Formalizing the questionnaire, printing it, revising it, and disseminating it.

3.8. Reliability of the Questionnaire:

In order for a study instrument to be reliable, it must be ensured that the results will be almost comparable whether it is given to the same people numerous times at various periods. A random exploratory sample of 18 Mothers, who made up 10% of the original population, was used by the researcher. where the sample individuals are were subsequently diminished from the initial research sample used for the analysis. Reliability coefficient utilizing the Alpha Cronbach's test coefficient, as displayed below.

Table3-3: Reliability of the Studied Questionnaire (n=18)

Variables	No. of Items	Cronbach's Alpha	Ass.
Mothers' conception	**11**	**0.81**	**acceptable**
Mothers' misconceptions	**15**	**0.83**	**acceptable**
Mothers' traditional practices	**14**	**0.77**	**acceptable**

3.9. Ethical Considerations

The researcher's ethical commitments are one of the majorities of important things to stick to and follow when doing the study. Before beginning to gather information concerning the designated population for the study, the investigator should make explicit the primary purposes and expected expectations for performing the research for the group of participants to be included in the research project. The researcher must also maintain the safety and security of the data collected from the study population and agree to utilize it only for scientific objectives relevant to the study. Before commencing to collect data from the study's sample of

participants, the researcher offered a brief explanation of the scientific context of the research and its objectives. The study's objectives were explained to mothers verbally, and they were requested to participate on a voluntary basis. Verbal agreement from the study participants once it has been made clear that participation is voluntary and that all data will be kept confidential.

3.10. Methods of Data Collection

The data collection period extended from the 20th of February to 16th April 2023, after receiving the Babylon Health Directorate's approval and assuring the survey's dependability and accuracy. Mothers who participated in the study were interviewed by the researcher, who provided instructions and answered any questions they had regarding the form. Then she encouraged them to participate and thanked them for their help. Interviewing techniques were employed separately for 15-20 minutes per interview after completing the crucial steps that must be included in the study design.

3.11. Methods of Statistics Data Analysis

The researcher used the SPSS-Version 24 and Microsoft Excel (2010) programs to statistically analyze data that was collected from the sample used in the study in order to look at the results, find the associations among each variable, and get the study's final results following a number of statistical tests.

3.11.1. Descriptive Approach

A. Descriptive statistics use a range of mathematical and statistical methods when quantitatively describing a dataset through tables and charts. The purpose of descriptive statistics is to display and explain all the information that has to be analyzed, sorted, briefly stated, and

categorized while also making it less difficult for those who receive it to identify and comprehend the information's substance. The analysis was carried out using:

B. A statistical table showing frequencies (No.) and percentages (%).

$$\% = \frac{\boldsymbol{Frequency}}{\boldsymbol{Sample\ Size}}\ x100$$

C. Mean of scores M.s. and the final score's average (M±).

$$M.S = \frac{\sum \text{ri} = 1\text{Fi x Si}}{\sum \text{ri} = \ 1\text{Fi}}\ x100$$

The following formulas can be used to determine the average score:

$$\boldsymbol{Total\ mean\ of\ scores} = (\frac{\boldsymbol{Maximum\ total\ sores - Minimum\ total\ sores}}{\boldsymbol{Levels}})$$

For Conceptions Questionnaire

According to the overall mean score, the following is a list of all the responses:

Poor (11-18.33)

Moderate (18.34-25.66)

Good (25.67-33)

For Misconceptions Questionnaire

The overall results, as determined by the following total mean score:

High (15-25)

Moderate (25.1-35)

Low (35.1-45)

For Traditional Practices Questionnaire

The following are the overall responses based on the total mean score:

Poor (14-23.33)

Moderate (23.32.66)

Good (32.67-42)

C. Standard Deviation test ±*SD*.

$$SD = \sqrt{\frac{1}{n-1}\sum_{i=1}^{n}(Xi - \bar{\chi})^2}$$

E. It use the Cronbach alpha correlation coefficient to assess the research tool's internal consistency.

$$\alpha = \frac{K}{K-1}\left[1 - \frac{\sum_{i=1}^{K}\sigma_{ii}}{\sum_{i=1}^{K}\sum_{j=1}^{K}\sigma_{ij}}\right]$$

2. Inferential approach

1. Analyzing Variance (ANOVA)

With more than two class variables, this test is used to compare differences in dependent variables to independent variables such as misconceptions and traditional practices and variations in mothers' conceptions. The statistical differences were shown at a significant level (Sig.) of 0.05.

Source of variance	Sum of square	d.f	Mean square	F
Between Groups	$SS_B = \sum \frac{(\sum xP1)^2}{n} - \frac{(\sum xP)^2}{n}$	$df_B = K\text{-}1$	$\frac{MS\beta}{MS\beta}$	$\frac{MSB}{MSW}$
Within Groups	$SS_W = \sum \frac{(\sum xP1)^2}{N} - \frac{(\sum xP)^2}{N}$	$df_w = N\text{-}k$	$\frac{SSw}{DFw}$	
Total	$SS_T = \sum \frac{(\sum xP1)^2}{N} - \frac{(\sum xP)^2}{N}$	$df_t = N\text{-}1$		

1. Independent Sample t-test

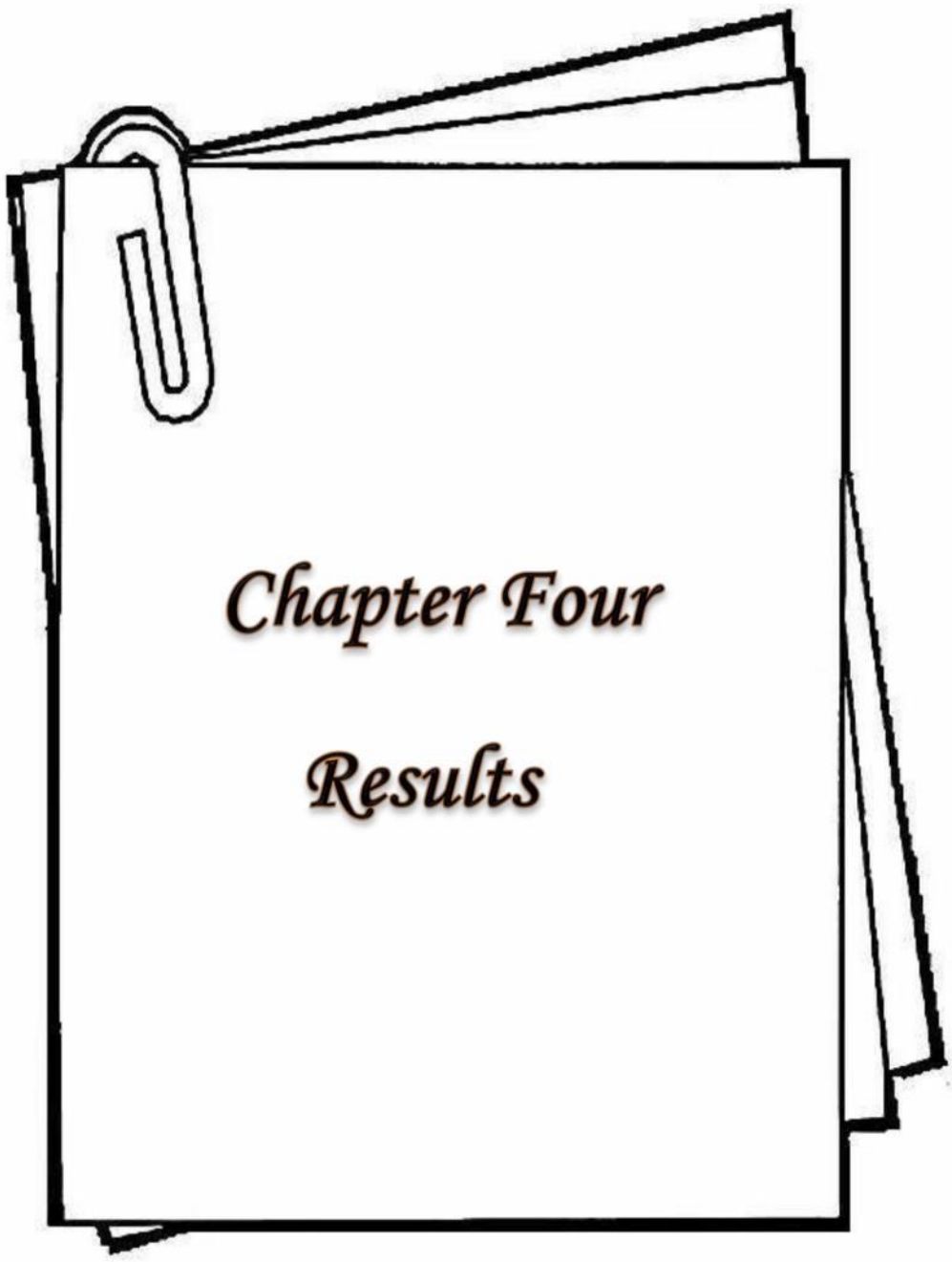
This test is used to compare the differences between dependent and independent variables, such as how differently mother's conception, common misconceptions, and traditional practices, to those with various sociodemographic characteristics (only with two class variables). The statistical differences were revealed at the significant level (Sig.), 0.05.

$$t = \frac{\bar{\bar{x}}_1 - \bar{\bar{x}}_2}{Sp\sqrt{n_1 - 1)s_1^2 + (n_2 - 1)s_2 / n_1 + n_2 - 2}})$$

2. Pearson's Correlation Coefficient (*r*)

This test was designed to determine the relationships between research variables such as mother's conception, common misconceptions, and traditional practices. In which, at significant levels of 0.01** and 0.05*, (-r) denotes a negative correlation and (+r), a positive correlation.

$$r = \frac{n\sum XY - (\sum X)(\sum Y)}{\sqrt{[n\sum X2 - (\sum))2][n\sum Y2 - (\sum))2]}}$$



Chapter Four

Results

Chapter Four

Results of the Study

This chapter presents the results of the data analysis systematically in tables and figures and these corresponded with the objectives of the study as follows:

4-1. Characteristics of the Research Sample

Table 4-1. Mothers' Characteristics Distribution in the Study Sample (n=180)

SDVs	Classification	No.	%
Age	<20 years	19	10.5
	20-29 years	104	57.8
	30-39 years	48	26.7
	≥40 years	9	5.0
	Mean ± SD	**28.53 ± 5.27**	
	Total	180	100
Education level	Illiterate	5	2.8
	Read & write	27	15.0
	Elementary	42	23.3
	Secondary	27	15.0
	Institutes and above	79	43.9
	Total	180	100
Occupation	Employ	68	37.8
	Housewife	112	62.2
	Total	180	100
Residents	Rural	64	35.6
	Urban	116	64.4
	Total	180	100
No. children	1	58	32.2
	2-3	90	50.0
	>3	32	17.8
	Total	180	100
Monthly income	In-sufficient	43	23.9
	Sufficient to some extent	108	65.5

	sufficient	19	10.6
	Total	180	100
Are you have information about teething?	Yes	174	96.7
	No	6	3.3
Sources of information	Non	6	3.3
	Family member	56	31.1
	Internet	41	22.8
	Media	2	1.1
	Doctor	40	22.2
	Nurses	26	14.5
	Work-field	9	5.0
	Total	180	100

No.= Number; %= Percentage

The results in (Table 4-1) showed the characteristics of the participants, the mean age 28.53 (SD=5.27) and the second age group between the ages of 20 and 29 old, which had the highest proportion (57.8%). With respect to education level, (43.9%) were graduates Institutes and above. Occupation-related findings, the housewife was predominated (62.2%) as compared with employees. In regards to residents, (64.4%) of the participants were urban as compared with rural. Half of the studied sample (50%) have 2-3 children. In terms of monthly income, a relatively high percentage of the participants (65.5) expressed sufficient to some extent. Ultimately with sources of information, (31.1%) use their families as a source of information about their infant teething.

Table 4-2. Study sample distribution according to the characteristics of their children

Childs Data	**Classification**	**No.**	**%**
Child Age	<1 year	66	36.7
	1-2 years	80	44.4
	≥ 3 year	34	18.9
Gender	Boys	94	52.2

	Girls	86	47.8
Type of feeding	Breastfeeding	56	31.1
	Bottle feeding	71	39.5
	Mixed	53	29.4
	Total	180	100

No.= Number; %= Percentage

The results in (Table 4-2) showed the characteristics of the children and most of the children (44.4%) were between the ages of 1-2 years. With regard to gender, more than half were males (52.2%) compared to females. Most of the mothers included in the current study were bottle-fed (39.5%) as compared to breast-fed and mixed-fed babies.

Table 4.3. Distribution of Mothers' Conception about Infant Teething

List	Conceptions Items	Groups	No.	%	M.s	Ass.
1	The babies' teeth start to erupt around 6–10 months of Age	I Don't Know	29	16.1	2.66	Good
		Uncertain	4	2.2		
		I know	147	81.7		
2	The first teeth to appear in the mouth are the lower central incisors	I Don't Know	35	19.5	2.50	Good
		Uncertain	20	11.1		
		I know	125	69.4		
3	The eruption of teeth gets completed at approximately 3 years of age	I Don't Know	32	17.8	2.51	Good
		Uncertain	25	13.9		
		I know	**123**	**68.3**		
4	Delayed eruption of teeth may be an indication of the presence of systemic disease	I Don't Know	60	33.3	1.89	Moderate
		Uncertain	80	44.4		
		I know	40	22.3		
5	Non-treated teething symptoms cause poor growth and severe illness	I Don't Know	102	56.7	1.70	Moderate
		Uncertain	30	16.6		
		I know	48	26.7		
6	Medication should be according to prescription	I Don't Know	31	17.2	2.62	Good
		Uncertain	6	3.4		
		I know	143	79.4		
7	A lancing technique used by the surgeon when the teething is late	I Don't Know	124	68.9	1.49	Poor
		Uncertain	24	13.3		
		I know	32	17.8		
8	Mild increase in temperature is a symptom of teething	I Don't now	28	15.6	2.61	Good
		Uncertain	14	7.7		
		I know	138	76.7		
9	Caring for the primary teeth helps to give the permanent teeth a healthy start	I Don't Know	30	16.6	2.31	Moderate
		Uncertain	64	35.6		
		I know	86	47.8		
10	Seizures, vomiting, or diarrhea	I Don't Know	88	48.9	1.84	Moderate

	are never normal signs of teething	Uncertain	32	17.8		
		I know	60	33.3		
11	Earache is never a normal sign of teething	I Don't Know	93	51.7	1.84	Moderate
		Uncertain	23	12.7		
		I know	64	35.6		

Assessment Level (Poor = 1-1.66; Moderate=1.67-2.33; Good=2.34-3)

According to the statistical mean, the data presented above(Table 4-3) showed that the mothers states moderate answers about infant teething at all studied items except, those numbered (1, 2, 3, 6, and 8) the responses were good and for items number (7) the responses were poor.

Table 4-4. Overall Mothers' Conception about Infant Teething Symptoms

Scale	Min.	Max.	M	SD	Score	No	%
Conseptio n (11 Q)	14	31	23.97	5.86	Poor (11-18.33)	25	13.9
					Moderate (18.34-25.66)	83	46.1
					Good (25.67-33)	72	40.0
					Total	180	100.0

Min.: Minimum; Max.: Maximum M stands for the average score, and SD stands for the average deviation.

Results in (Table 4-4) show that mothers' reactions on the conceptions scale ranged from 14-31 at a total mean score equal to 23.97 (SD=5.86), and according to the study criteria, this indicated that the mothers with a moderate level of conceptions towards infant teething.

Table 4.5. Distribution of Mothers' Misconceptions about Infant Teething Symptoms

List	Misconceptions Items	Responses	No.	%	M.s	Ass.
1	Fever	Disagree	148	82.2	1.27	High
		Uncertain	15	8.4		
		Agree	17	9.4		
2	Diarrhea	Disagree	109	60.6	1.62	High
		Uncertain	31	17.2		
		Agree	40	22.2		
3	Vomiting	Disagree	69	38.3	1.95	Moderate
		Uncertain	51	28.4		
		Agree	60	33.3		
4	Irritability	Disagree	33	18.4	2.34	High
		Uncertain	53	29.4		
		Agree	94	52.2		
5	Poor appetite	Disagree	141	78.3	1.32	High
		Uncertain	20	11.1		
		Agree	19	10.6		
6	Drooling of saliva	Disagree	29	16.1	2.57	Low
		Uncertain	19	10.6		
		Agree	132	73.3		
7	Weight loss	Disagree	120	66.7	1.52	High
		Uncertain	25	13.9		
		Agree	35	19.4		
8	Cold and cough	Disagree	66	36.7	2.01	Moderate
		Uncertain	46	25.5		
		Agree	68	37.8		
9	Conjunctivitis	Disagree	59	32.8	2.10	Moderate
		Uncertain	44	24.4		
		Agree	77	42.8		
10	Increase oral temperature	Disagree	33	18.3	2.51	Low
		Uncertain	22	12.3		
		Agree	125	69.4		
11	Ear problem	Disagree	56	31.1	2.12	Moderate
		Uncertain	46	25.6		
		Agree	78	43.3		
12	Pale	Disagree	86	47.8	1.79	Moderate
		Uncertain	45	25.0		
		Agree	49	27.2		
13	Thrush	Disagree	62	34.4	2.02	Moderate
		Uncertain	53	29.5		

		Agree	65	36.1		
14	Difficult sleeping	Disagree	37	20.6	2.48	Low
		Uncertain	19	10.5		
		Agree	124	68.9		
15	Biting on a hard object	Disagree	22	12.2	2.69	Low
		Uncertain	12	6.7		
		Agree	146	81.1		

Level of Assessment (High= 1-1.66; Moderate=1.67-2.33; Low=2.34-3)

In terms of statistical mean, table (4-5) demonstrated that the mothers expressed a moderate response about infant teething in terms of misconceptions at overall studied items with the exception of Items (1, 2, 4, 5, and 7) the responses were high misconceptions (*negative outcome*) and items number (6, 10, 14, and 15) the responses were low misconceptions (*positive outcome*).

Table 4-6. Overall Mothers' Misconception about Infant Teething Symptoms

Scale	Min.	Max.	M	SD	Score	No.	%
Misconceptions (15 Q)	19	40	30.33	4.10	High (15-25)	24	13.3
					Moderate (25.1-35)	136	75.6
					Low (35.1-45)	20	11.1
					Total	180	100.0

Min.: Minimum; Max.: Maximum, M stands for the average score, and SD stands for the average deviation

Results in (Table 4-6) show mothers' responses on the misconceptions scale ranged from 19-40 with a total mean score equal to 30.33 (SD=4.10), and according to the study criteria, this indicated that the mothers with a moderate level of misconceptions towards infant teething.

Table 4.7. Distribution of Mothers' Traditional Practices about Infant Teething Symptoms

List	Misconceptions Items	Responses	No.	%	M.s	Ass.
1	Visit the physician if there is any complication during the teething process	Never	9	5.0	2.33	Moderate
		Sometime	103	57.2		
		Always	68	37.8		
2	Use a cold compress for the child when getting a fever	Never	11	6.1	2.55	Good
		Sometime	59	32.8		
		Always	110	61.1		
3	Give the child plenty of fluid to prevent dehydration	Never	13	7.2	2.63	Good
		Sometime	40	22.2		
		Always	127	70.6		
4	Give the child paracetamol to relieve pain	Never	18	10.0	2.39	Good
		Sometime	73	40.6		
		Always	89	49.4		
5	Rubbing the gum with garlic	Never	102	56.7	2.43	Good
		Sometime	53	29.4		
		Always	25	13.9		
6	Giving a clean pacifier to relieve pain	Never	54	30.0	2.02	Moderate
		Sometime	69	38.3		
		Always	57	31.7		
7	Using herbs during teething	Never	31	17.2	2.38	Good
		Sometime	50	27.8		
		Always	99	55.0		
8	Allow the child to bite on a chilled object	Never	36	20.0	2.25	Moderate
		Sometime	63	35.0		
		Always	81	45.0		
9	Allow bottle feeding or nursing at night	Never	32	17.8	2.29	Moderate
		Sometime	64	35.5		
		Always	84	46.7		
10	Apply topical analgesics (painkillers) to the gums	Never	72	40.0	1.84	Moderate
		Sometime	65	36.1		
		Always	43	23.9		
11	Consult grandmother about teething symptoms	Never	66	36.7	1.82	Moderate
		Sometime	81	45.0		
		Always	33	18.3		
12	Giving the child tonics such as calcium	Never	51	28.3	1.86	Moderate
		Sometime	103	57.2		
		Always	26	14.5		
13	Giving the child vitamin D3 or multivitamins	Never	38	21.1	1.98	Moderate
		Sometime	107	59.4		

		Always	35	19.5		
14	Expose the child to sunlight	Never	19	10.6	2.43	Good
		Sometime	65	36.1		
		Always	96	53.3		

Assessment Level (Poor= 1-1.66; Moderate=1.67-2.33; Good=2.34-3)

According to the statistical mean, the(table 4-7) above showed that the moms' replies were moderate about infant teething in terms of traditional practices at all studied items except, items number (2, 3, 4, 5, 7, and 14) the responses were good.

Table 4-8.Overall Mothers' Traditional Practices about Infant Teething

Scale	Min.	Max.	M	SD	Score	No.	%
Traditional Practices (14 Q)	18	41	31.2	5.35	Poor (14-23.33)	18	10.0
					Moderate (23.32.66)	82	45.6
					Good (32.67-42)	80	44.4
					Total	180	100.0

Min.: Minimum; Max.: Maximum, The total score's mean is given as M, while its standard deviation is given as SD.

Results in (table 4-8) indicate that the mothers' responses on the traditional practices scale ranged from 18-41 at a total mean score equal to 31.2 (SD=5.35), and according to the study criteria, this indicated that the mothers with a moderate level of traditional practices towards infant teething.

Table4-9. Statistical Differences in Mothers Conceptions, Misconceptions, and Traditional Practices with Regard Socio-demographic Data

Table 4-9.1. Statistical Differences in Study Variables between Groups of Age

Age groups	The Cause of the variation	Total Squares	(d.f)	Average Square	*F-statistic*	*Sig.*
Conceptions	Between Groups	23.202	3	7.734	49.161	.000
	Within Groups	27.689	176	.157		
	Total	50.891	179			
Misconceptions	Between Groups	.562	3	.187	2.592	.054
	Within Groups	12.708	176	.072		
	Total	13.270	179			
Traditional Practices	Between Groups	5.696	3	1.899	16.333	.000
	Within Groups	20.458	176	.116		
	Total	26.154	179			

Statistically significant variations were shown by the calculation of variance in conceptions (*F=49.161; p=.000*), misconceptions (*F=2.592; p=.054*), and traditional practices (*F=16.333; p=.000*) according to differs age groups. See table 4-9.1 above

Table 4-9.2. Statistical Differences in Study Variables Between Education Level Groups

Level of Education	Source of variation	total Squares	d.f	average Square	*F-statistic*	*Sig.*
Conceptions	Between Groups	17.195	4	4.299	22.326	.000
	Within Groups	33.696	175	.193		
	Total	50.891	179			
Misconceptions	Between Groups	.862	4	.215	3.039	.019
	Within Groups	12.408	175	.071		

	Total	13.270	179			
Traditional Practices	Between Groups	5.506	4	1.377	11.667	.000
	Within Groups	20.648	175	.118		
	Total	26.154	179			

According to the analysis of variance, there were of statistical significance variations in conceptions (*F=22.326; p=.000*), misconceptions (*F=3.039; p=.019*), and traditional practices (*F=11.667; p=.000*) according to differs education level. See table 4-9.2 above

Table 4-9.3. Statistical Differences in Study Variables between Groups of Occupation

Variables	**Occupation**	**Mean**	**SD**	**t-value**	**d.f**	***Sig.***
Conceptions	Employ	2.28	.454	2.090	178	.038
	Housewife	2.11	.568			
Misconceptions	Employ	1.97	.306	1.818	178	.071
	Housewife	2.05	.247			
Traditional Practices	Employ	2.25	.370	.731	178	.466
	Housewife	2.21	.390			

The analysis of variance revealed statistically significant differences in conceptions (*t=2.090; p=.038*); and no significant differences in misconceptions (*t=1.818; p=.071*) and traditional practices (*t=.731; p=.466*) between those who are employed or housewife. See table 4-9.3 above

Table 4-9.4. Statistical Differences in Study Variables Among Residential Groups

Study Variables	**Residents**	**Mean**	**SD**	**t-value**	**d.f**	***Sig.***
Conceptions	rural communities	2.19	.591	.469	177	.640

	Urban	2.15	.502			
Misconceptions	Rural	1.94	.241	2.714	177	.007
	Urban	2.05	.278			
Traditional Practices	Rural	2.21	.426	.313	177	.754
	Urban	2.22	.359			

The analysis of variance revealed statistically significant variations in misconceptions (*t=2.714; p=.007*); and no significant differences in conceptions (*t=.469; p=.640*) and traditional practices (*t=.313; p=.754*) between those who are urban or rural. See table 4-9.4 above

Table 4-9.5. Statistical Differences in Study Variables between Groups of Number of Children

No. Children	**variation source**	**total of Squares**	**d.f**	**average Square**	***F-statistic***	***Sig.***
Conceptions	Between Groups	1.815	3	.605	1.170	.093
	Within Groups	49.076	176	.279		
	Total	50.891	179			
Misconceptions	Between Groups	.588	3	.196	1.722	.076
	Within Groups	12.682	176	.072		
	Total	13.270	179			
Traditional Practices	Between Groups	1.044	3	.348	1.440	.066
	Within Groups	25.110	176	.143		
	Total	26.154	179			

The analysis of variance revealed no statistically significant variations in conceptions (*F=1.170; p=.093*), misconceptions (*F=1.722; p=.076*), and traditional practices (*F=1.440; p=.066*) according to a different number of children. See table 4-9.5 above

Table 4-9.6. Statistical Differences in Study Variables between Groups of Monthly Income

Income	variation source	total Squares	d.f	M. Square	*F-statistic*	*Sig.*
Conceptions	Between Groups	.927	3	.309	1.088	.356
	Within Groups	49.964	176	.284		
	Total	50.891	179			
Misconceptions	Between Groups	.883	3	.294	1.184	.067
	Within Groups	12.387	176	.070		
	Total	13.270	179			
Traditional Practices	Between Groups	.394	3	.131	.898	.443
	Within Groups	25.760	176	.146		
	Total	26.154	179			

The analysis of variance revealed no statistically significant variations in conceptions (*F=1.088; p=.356*), misconceptions (*F=1.184; p=.067*), and traditional practices (*F=.898; p=.443*) according to different monthly income. See table 4-9.6 above

Table 4-9.7. Statistical Differences in Study Variables between Groups of Sources of Information

Sources	variation source	total Squares	d.f	M. Square	*F-statistic*	*Sig.*
Conceptions	Between Groups	15.274	6	2.546	12.364	.000
	Within Groups	35.617	173	.206		
	Total	50.891	179			

Misconceptions	Between Groups	.441	6	.073	.990	.434
	Within Groups	12.829	173	.074		
	Total	13.270	179			
Traditional Practices	Between Groups	4.916	6	.819	6.675	.000
	Within Groups	21.238	173	.123		
	Total	26.154	179			

The analysis of variance revealed that there were statistically significant variations in conceptions (*F=12.364; p=.000*) and traditional practices (*F=6.675; p=.000*); and no statistical differences in misconceptions (*F=.990; p=.434*) according to different sources of information about infant's teeth. See table 4-9.7 above

Table 4-10. Association between Mothers Conceptions, Misconceptions and Traditional Practices

Correlation Statistics	Conceptions	Misconceptions	Traditional Practices
1.Conceptions	-	-.147-*	.705**
2.Misconceptions	-.147-*	-	-.131-
3.Traditional Practices	.705**	-.131-	-

***Correlation Coefficients at Level 0.001.*

**Correlation Coefficients at Level 0.005.*

Findings in (table 4-10) show there were negative correlation between conceptions and misconceptions (*r= -.147; p= .005*); and positive correlation between conceptions and traditional practices (*r= .705; p= .000*).

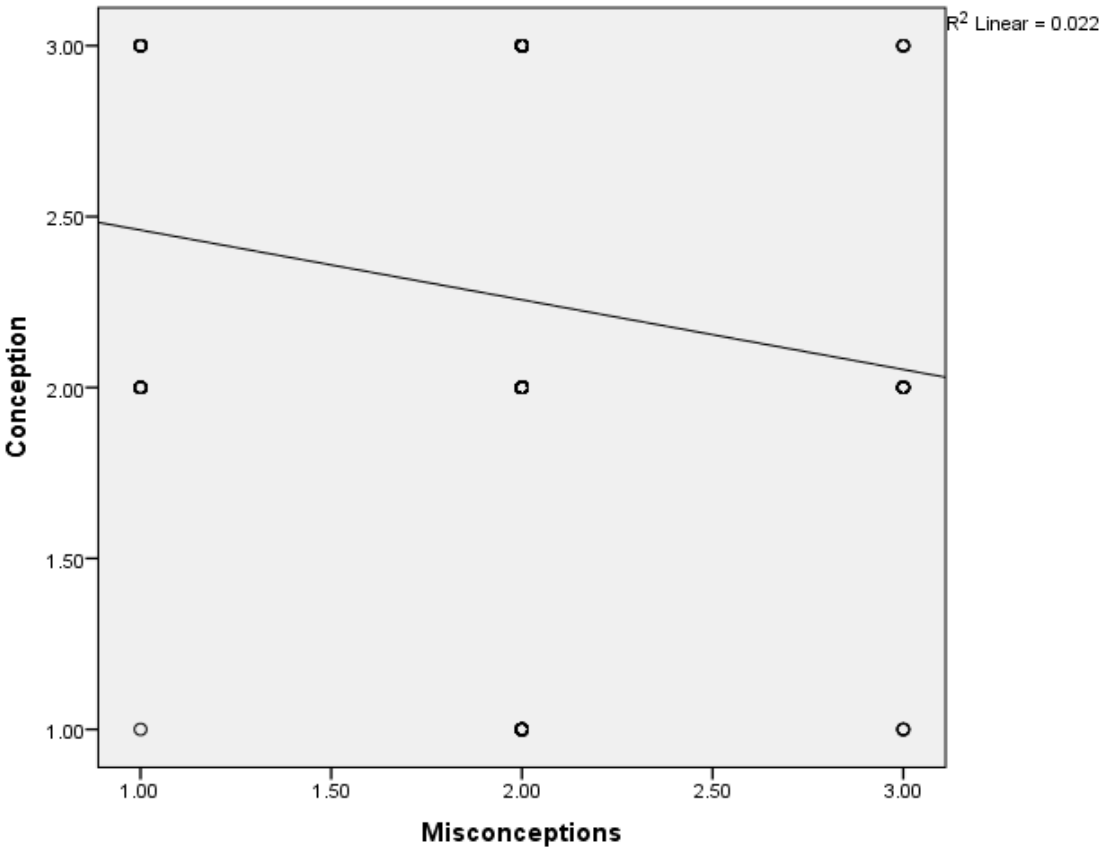


Figure 4.1. Association between conceptions and misconceptions

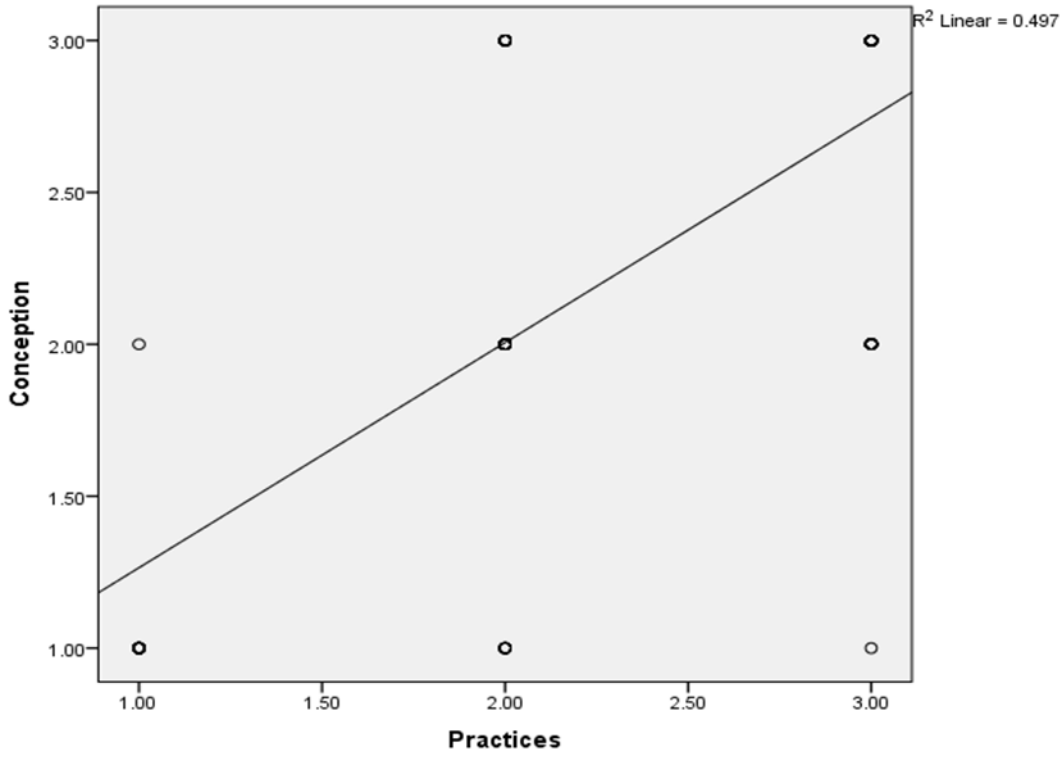


Figure 4.2. Association between conceptions and traditional practices

Chapter five

DISCUSSION

Chapter Five

Discussion of the Study Results

This chapter deals with a discussion of the results of the research in tables and these refer to the objectives of this report, which are as follows:

5.1. Socio-Demographic Characteristics of the Study Sample

The socio-demographic details of the 180 mothers who took part in the study are shown in Table (4.1),reveal the age group 20-29 years old,recorded the highest percentage. This finding come consisting from (Miri-Aliabad *et al.*, 2021) study in South East of Iran found that over half of the mothers were between 20 to 30 years old. This is due to this age of childbearing and childrearing for most women. On the other side, the mother's age was considered an influencing factor in the management of children during teething.

Concerning education level, more than two fifth of the sample were graduates of institute and above. This finding is in the same line with the findings (Olczak-Kowalczyk *et al*., 2016), from Poland, which found most participants attained university-level of education. These findings can result since these participations have the opportunity to continue their education properly.

Occupation-related findings, the housewife was predominated as compared with employees. This finding is in agreement with findings from Pakistan (Faheem et al., 2022), study found that more than half of the women were housewives.

From the researcher point of view this is perhaps related to the mother's preference to give care for her child or due to lack of employment opportunities.

In regards to residents, less than two thirds of the participants were urban as compared with rural. Half of the studied sample have 2-3

children. In terms of monthly income, a relatively high percentage of the participants expressed sufficient to some extent. Ultimately with sources of information, the majority of participants have information about teething, less than one third of mothers use their families as a source of information about their infant teething. These findings agree with (Olatunya et al., 2020),

study in Nigeria, found that more than two thirds of the participants in the study live in urban areas and (67.2%) had 2-5 children and do not have enough monthly income. Most of them used their families as a source of advice regarding children's teething.

More than two fifth of the children (table- 4-1-2) show that more than two fifth of the sample were between the ages of 1-2 years. Concerning gender, more than half were males compared to females. These findings are in the same line with (Vejdani *et al*., 2015) study in Rasht, Iran, where more than half of children were male sex. Nearly two fifth of the mothers included in the current study were bottle-fed as compared to breast-fed and mixed-fed babies. These findings disagree with(Alnemer *et al.*, 2017) findings from Riyadh, Saudi Arabia., where about half of children were on mixed feeding.

5.2. Mothers Conceptions Towards Infant Teething Symptoms

In the current study's analysis of mothers' conceptions of an eruption of teeth (table 4-3), the majority of the sample stated that tooth eruption begins between the ages of 6 and 10 months. These findings are in the same line with (Kakatkar et al,2012) study conducted in India accounted for (81.3%) of the total sample. While the lower middle incisor is thought to come at the beginning of 69.4% of them, these findings agree with (Getaneh *et al.*, 2018) study in Southwest Ethiopia conducted on 107 mothers who were interviewed, the lower central incisors are thought to erupt first in the mouth by 80 (74.8%) of them. Nevertheless, a delayed tooth eruption may be a sign of a systemic illness (44.4%) of the total

sample was uncertain while (22.3%) of them said that they know. These findings are approximately the same as those (Getaneh *et al.*, 2018), about more than one quarter of mothers was known about it. More than two thirds of mothers stated that they know about the eruption of teeth gets completed at approximately 3 years of age. These findings are in the same line with the (Ahmed *et al.*, 2021) study conducted in eastern Sudan, which found that 268 (69.8) of the sample knew that tooth eruption is complete at 2–3 years of age.

The mother is always the first person who notices any slight change in the child's normal appearance, behavior, or health. They usually have more influence and responsibilities than fathers for the everyday duties of their children. Currently, results (table 4-4) indicate that the mothers with moderate levels of conceptions at a mean of 23.97 (SD=5.86) towards infant teething symptoms. The average level of knowledge is considered an unacceptable level for mothers in dealing with the infant because infant care needs a qualified mother (Tavares *et al*., 2018).

From the researcher point of view, this may be due to the availability of television, internet and communication methods, this will made the mother learn more about her child's health.

Additionally, the current study findings come in agreement with the findings (Allam, 2020) Study in Egypt conducted on 120 mothers, showed that more than one third of the mothers had moderate knowledge about the signs and symptoms of infant teething.

Matching the current findings is that mothers associated several common symptoms of their infant's illnesses with teething, which was associated with several previous studies.(Amjad *et al*., 2022 ;Fahem *et al*., 2022)

5.3. Misconceptions about Infant Teething Symptoms among Mothers

Every youngster goes through the physiological process of teething. Many unrelated ailments, however, are attributed to teething. The

current study's results showed that mothers had a moderate level of misconceptions about a baby's teething symptoms, at 30.33 (SD=4.10) (table 4-6). Mothers frequently hold misconceptions and illusions about teething. The research found a sizable amount of misconceptions. To eliminate some myths and false beliefs, the results of this study underline the need for ongoing medical education.

These findings come in the same line with (Getaneh et al., 2018) in Egypt, The majority of mothers, it was shown, held misconceptions about the symptoms that frequently occur during teething. The Indian study (Kakatkar et al., 2012) performed much better than the current study in terms of the mothers' misconceptions. The improved oral health education in India may be part of the cause for this variation. In a study done by Kakatkar et al. (2012), the vast majority of mothers thought that teething was related to several illnesses. Comparable research was conducted in the neighboring country of Sudan, where 95% of participants connected various symptoms to teething (AwadKamil, 2012).

In Lagos State, Nigeria, a similar conclusion was also made, when 95.2% of the mothers attributed a variety of illnesses to teething (Uti et al., 2005). Further research conducted in Ibadan, Nigeria, however, found a somewhat lower number (64.8%) (Ige & Olubukola, 2013). This can be connected to the sample strategy, study design, or cultural variances. According to (El-Gilany & Abusaad, 2017)a study conducted in Egypt (98.2%), teething is accompanied by certain symptoms. The greater sample size of the study in Egypt may be somewhat responsible for this difference.

In this study, the majority of mothers disagreed that fever would occur when a child was teething. This result disagrees with (Kakatkar et al., 2012) the study in India found that(70.0%) of the sample agree that fever is associated at the time of teeth eruption. Mothers' capacity to describe symptoms, which may be influenced by their knowledge, belief, and health information, may be to blame for this diversity.

In the current study, less than two thirds of mothers disagreed that diarrhea was related to the eruption of teeth. This result disagrees with (Kakatkar et al., 2012) the study in India found that (87.5%) of the sample agree that diarrhea was associated with the time of teeth eruption. These variations between nations may be due to variances in study design, cultural variety, and oral health knowledge.

In this study, irritability was ranked as the most common symptom associated with teething (52.2%). This result is in disagreement with (Ige & Olubukola, 2013) in Nigeria about two fifth where irritability is not common.

In present study, more than three quarters of the mothers believed that teething was not the reason for their children's poor appetite. This result agrees with a (AwadKamil, 2012) study in Sudan that showed a higher percentage (75%)of the sample agree that teething not caused poor appetite.

In contrast to Kakatkar et al. (2012), less than two fifth 38.3% of the mothers in the current study also listed vomiting as one of the symptoms that were not related to teething . In the study in India about (37.1%) of the sample reported vomiting. The study's sampling and design, cultural diversity among nations, and oral health literacy may all be responsible for the variations in mothers' beliefs and actions regarding tooth eruption between the current study and the other literature used in the study.

More than two thirds of mothers in present study had beliefs that increased oral temperature , ear problem more than two fifth ,and thrush more than one thirds was due to teething. These findings disagree with (Oziegbe *et al.*, 2009) study in nigeria, found that (0.12%),(0.2%) of mothers agree that increase oral temperature and ear problems is due to teething and no one of them was attribute thrush to teething.

More than two thirds of mothers in the present study believed that difficult sleeping was associated with teething. These findings disagree with (Indira *et al.*, 2016) study conducted in Maysor found that less than 20% of mothers in the study believed that sleep disturbance was associated to teething.

Less than two fifth of mothers had misconceptions that cold & cough and more than two fifth conjunctivitis are due to teething. These findings are agree with (AwadKamil, 2012) study in Saudi Arabia in Khartoum regarding cold & cough (35%) , while disagree in conjunctivitis (10%).

These false beliefs are widespread around the world, not only in Iraq. According to earlier studies, mothers view fever and diarrhea as typical teething adverse effects. This might lead to delayed therapy for more serious illnesses and incorrect diagnoses. Based on local culture, religion, and prevailing myths, distinct practices exist throughout the world (Adnan *et al*., 2021)

Findings from recent studies showed that mothers who participated in this study still blame various illnesses on teething. The majority of mothers believed that fever and diarrhea were signs of teething and did not require medical attention. The majority of women lacked the knowledge necessary to manage teething symptoms at home. To dispel these myths and cultural preconceptions about teething symptoms, dentists and childcare experts should offer health education.

From the researcher point of view, this may be due to that the mother was worried about her infant, which made her suspicious during teething process .

5.4. Mothers' Traditional Practices Towards Infant Teething Symptoms

Results indicate that the mothers' responses on the scale of the traditional practice ranged from 18-41 with a total mean score equal to 31.2

(SD=5.35), and according to the study criteria, this indicated that the mothers with a moderate level of traditional practices toward infant teething (table 4-8). These outcomes stem from conventional practices' associations with false beliefs. These results, which are in line with of (Ahmed et al., 2021)those from Saudi Arabia, highlighted that despite higher misconceptions and a decline in traditional practices when children's teeth started to erupt, traditional practices were still below the acceptable level. These results also highlight the decline in medical consultations.

Interesting outcomes were, on average, visiting the doctor while the child was teething, giving a clean pacifier to reduce their tooth pain, and letting them bite on a cooled thing, allowing bottle feeding or night feeding, topical analgesics, consulting the grandmother about teething symptoms, giving the child tonics such as calcium and giving the child Vitamin D3 or multivitamins and all these traditional practices are due to the mother's misconceptions. These traditional practices are no different from the practices among mothers in Saudi Arabia (Mustafa et al., 2019).

The result of the current study shows the highest percentage Sometimes visit a physician, and less than half Give the child paracetamol to relieve pain. These findings agree with (Ahmed *et al.*, 2021)study conducted in eastern Sudan, which found that 262 (68.2%) of the mothers believed that the infant with eruption of teeth should be sent to the hospital or other health facility, and also that 313 (81.5%) of the mothers chose to administer acetaminophen or other systemic analgesics. More than two thirds of mothers give fluid to prevent dehydration, and more than half of mothers use herpes. These findings agree with(Ahmed *et al.*, 2021), 280 (72.9%) of the sample administered extra fluids to prevent dehydration,Oral Rehydration Solution (ORS or other), and 144 (37.5%) gave herbs. While disagreeing with(Amjad *et al.*, 2022), a study conducted at the (outpatient department)OPD of Sharif Medical and Dental College & CMH Lahore Medical College and Institute of Dentistry, found that only

1.7% use herbal medicine and 26.7%Increased fluid provision to prevent dehydration.

In the present study, less than half of the mothers preferred to give paracetamol or other systemic analgesics. This result In contrast, with (Getaneh et al., 2018) a study in Ethiopia, only one mother stated that the child should be given paracetamol to relieve symptoms, while 12.1% reported rubbing children's gums with garlic, and 6.5% reported rubbing them with herbs to relieve teething pain. In Saudi Arabia, 76.1% of parents used systemic analgesics, and 65.6% applied topical analgesics to children's gums (Owais et al., 2010).

According to the results of the current study, even though the majority of parents were educated and aware of teething symptoms, precise knowledge of teething was still necessary to empower parents to make crucial decisions in their children's best interests. There needs to be increased emphasis on oral health education to dispel any misconceptions that people may have about teething symptoms in general. A large percentage of people believe that the majority of systemic symptoms during teething are a natural physiological process.

From the point of view of a researcher, the mixed responses and variations in conceptions, misconceptions and traditional practices among participants could be due to differences in educational backgrounds. mothers may have received varying levels of education which can influence their misconceptions and traditional practices about infant teething process.

5.5.Factors Associated with Mother's Conceptions, Misconceptions, and Traditional Practices

According to the age (table 4-9.1)**,** It was noted among the results that there were statistically significant differences in conceptions, misconceptions, and traditional practices according to different age groups.

The concepts were in favor of the older age group, perhaps because they have more than one child or have experienced teething children more than once, so they have better awareness than younger ages. These findings come consistent with (Adnan *et al*., 2021) findings from India, which emphasized that the misconceptions and traditional practices differ according to the age of the mothers, as the younger mothers have the worst traditional concepts and practices compared to the older mothers.

In addition, this study found that middle-aged mothers over the age of 30 had better conceptions. Perhaps this can be justified by their high number of children, as most of them have 2-4 children. In comparison, younger mothers-to-be have the lowest concepts of the teething process. Therefore, age may play a vital role as it was found to be significantly associated with parental knowledge in a study that was carried out in India. (Kakatkar et al., 2012).

Additionally, in a study conducted in Egypt, the age group 30-35 years showed a significant increase in knowledge more than those in the age group less than 30 years, while mothers in the age group 31-35 years showed a slight difference from those in the age group > 35 years (Allam, 2020). This indicated that the mother's advanced age indicates an improvement in her right and wrong concepts, which improves her traditional practices. Moreover, this study found that the mothers in the middle age group (30-39 years) had better knowledge.

Regarding to the educational level (table 4-9.2), the educational level is interesting in the results of the current study, as there are statistically significant differences in conceptions, misconceptions, and traditional practices according to different education levels. These results make sense where higher education is significant conceptions, misconceptions, and traditional practices as the educational level plays a major role in these variables.

This finding is supported by findings from Iraq, the false beliefs and myths associated with teething differ according to the mother's education (Yousif, 2020). In addition, findings from Jordan illustrated that the parents with higher education and middle age group had a higher degree of accurate belief about teething (Owais et al., 2010).

According to Occupation (table 4-9-3), among the results, it was noted that there are differences in the concepts related to the teething of children according to the difference in the mother's profession, as the differences were in favor of the employed mothers who showed the best concepts about the teething of children compared to housewives. These results can be justified by the fact that the female employee has a higher educational level than the housewife (the educational level is considered a factor that predicts the improvement of concepts related to children's teething).

The mother's occupation is linked to her educational level, the more she is employed, the better her results in managing the child compared to the housewife. This is confirmed by Meta-analysis conducted in Canada, most studies in this Meta-analysis confirmed that female employees have a better understanding of children's teething compared to housewives (Massignan et al., 2016).

Regarding the residents (table 4-9-4), misconceptions differ according to the place of residence, as urban dwellers had fewer misconceptions compared to their peers in the countryside, perhaps because of the different levels of education as well. This finding is supported by findings from North-Central Ethiopia by Community-Based Cross-Sectional Study, which confirmed findings that mothers who live in urban areas have a better awareness of children's teething than those in rural areas. This is due to different educational levels and medical consultations related to oral health, as well as different rural beliefs (Mekete et al., 2023).

According to Sources of information, it was observed that the mothers' concepts, misconceptions, and traditional practices about child teething differ according to different sources of information, where the best differences were among those mothers who use doctors and nurses as their source of information about child teething compared to those mothers who use no source or use their families' consultations, the Internet or social media. Knowing that most of the participants in the study receive their information from their families. These results are supported by the results of a study conducted in the United Arab Emirates. Pharmaceutical advice, the Internet, and social media had a significant negative impact on parents' management of teething symptoms. When the source of advice was related to their practices in managing to teeth, those who received their information from these two sources were significantly less practice degree (Almatrouk et al., 2021).

Increasingly, parents search on the internet to find information on questions about infant health problems and specific treatments (Althunayan et al., 2018). Social media is recognized as a useful health education resource, but inaccurate information may not achieve the expected results (Fox, 2011).

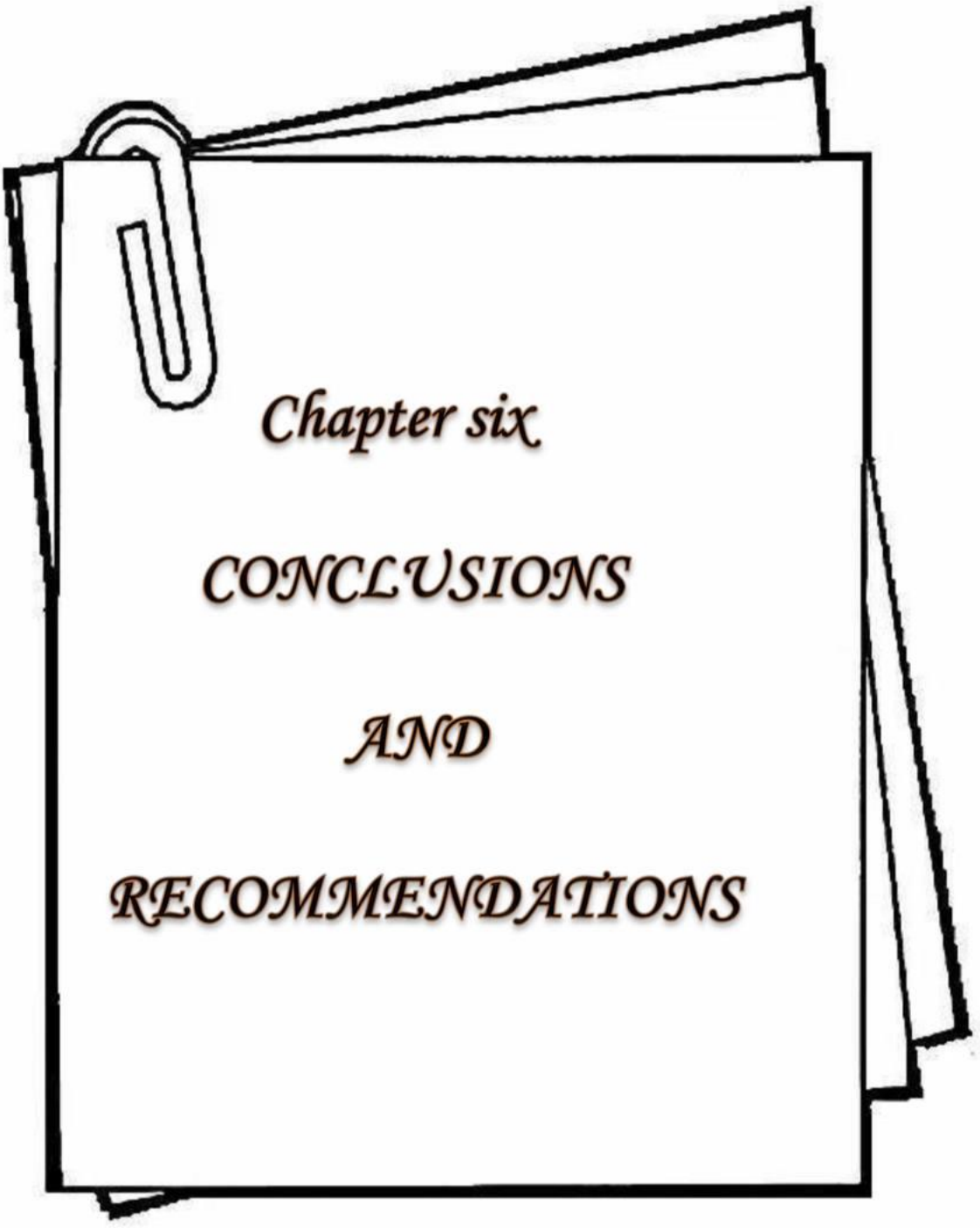
5.6.Association between Mothers Conceptions, Misconceptions and Traditional Practices

Findings show there were negative correlation between conceptions and misconceptions (*r= -.147; p= .005*); and positive correlation between conceptions and traditional practices (*r= .705; p= .000*). Through these results, the negative correlation between conceptions of infant teething and misconceptions indicates that the higher the conceptions is significant lower the misconceptions. While the positive correlation between conceptions about infant teething and traditional practices indicates that the higher conceptions is significant better traditional practices.

The results showed that the conceptions about infant teething symptoms of respondents was within average level, misconceptions was within average level and the traditional practices was also average. Statistical significance association was found between conceptions and misconceptions and traditional practices. These results highlight the reliance on conceptions about infant teething. By improving these conceptions, we can reduce misconceptions and improve traditional practices.

This findings come consisting with findings of previous studies (Faheem et al., 2022)in Pakistan, demonstrated that the misconceptions decrease with increasing mothers' awareness of infant teething. In Brazil, the more misconceptions about infant teething, the more traditional practices are within the acceptable level, because misconceptions are negatively associated with correct behaviors in the eruption of teeth. (Pereira et al., 2023). In another, there is a clear negative correlation in correct concepts about teething in infancy and misconceptions among Saudi mothers (Al Olah et al., 2020). A Systematic Review conducted in India, confirmed this findings, by increasing mothers' awareness, misconceptions about infant teething decrease, and traditional health practices increase (Joshi et al., 2020).

From the researcher point of view, the remarkable increase in the numbers of mothers possessing correct information with regard to infant teething, it was not possible to establish whether such knowledge would result in long term behaviour change. Traditional practices and misconceptions about infant teething are often shaped by strong cultural influences, and older persons in the family like the child's grandparents and in-law can exert influence on what mother finally practices. Issue involving culture a more complex to change in most societies and cautious approach may be required when dealing with infant teething.



Chapter six

CONCLUSIONS

AND

RECOMMENDATIONS

Chapter Six

Conclusions and Recommendations

6.1. Conclusion:

In light of the results interpretations and its discussion, our study concludes that:

1. The highest percentage of mothers who had children during teething period were in the age group (20-29), most of them in high educational levels, housewives, residents in urban areas, and their family was the most source of information.
2. Regarding children characteristics, the most age group was 1-2 years, male and the type of feeding was bottle feeding.
3. The results of the study showed that mothers' conceptions, misconceptions, and traditional practices about infant teething symptoms were within an moderate level.
4. The study findings demonstrate statistical significance variation in conceptions, misconceptions, and traditional practices of mothers about infant teething symptoms according to differs age groups.
5. The study findings demonstrate statistical significance differences in conceptions and no significant differences in misconceptions and traditional practices between those who are employed or housewives.
6. The study findings demonstrate statistical significance variations in misconceptions and no significant variations in conceptions and traditional practices between those who are urban or rural.
7. The analysis of variance revealed no statistical significance variation in conceptions, misconceptions, and traditional practices according to different number of children.
8. The analysis of variance revealed no statistical significance variation in conceptions, misconceptions, and traditional practices according to different monthly incomes.

9. The analysis of variance revealed that there were statistically significant variations in conceptions and traditional practices and no statistical differences in misconceptions according to different sources of information about infants' teeth.
10. Findings show there was a negative correlation between conceptions and misconceptions and a positive correlation between conceptions and traditional practices

6.2. Recommendations:

In light of the conclusions reached by the study, the researcher recommends the following:

1. It is advised that more emphasis be put on the healthcare team's provision of more illuminating and scientifically supported guidelines, particularly by pediatricians, who see infants at a young age and can give parents proactive advice during the teething process.
2. Educational initiatives are urgently needed to improve parents' understanding of the teething process in young children and their parenting skills. Parents should receive help and advice on where and how to find reliable, scientifically supported information on how to address teething symptoms.
3. Encourage media outlets to cover issues relating to the care of young children who are teething.
4. A guidebook outlining the signs and treatments for newborn teething should be available. Use clear language and eye-catching images provided to mothers and family members.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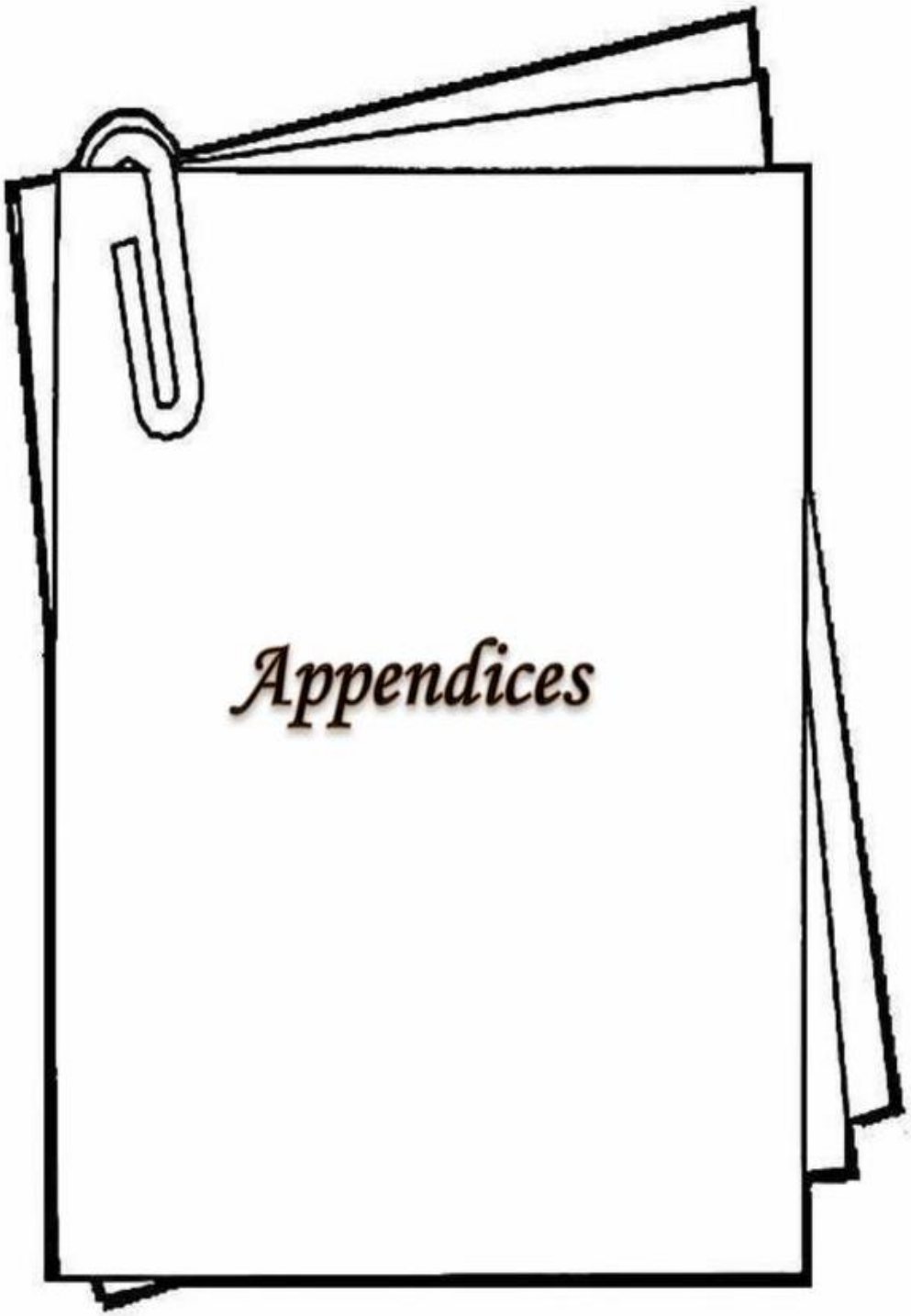

Appendices

Appendix (A1): Administrative Arrangements

University of Babylon
College of Nursing
Research Ethics Committee
Issue No:
Date: 24 / 1 /2023

جـامـعة بـابـل
كـلية التمريـض
لجنة اخلاقيات البحث العلمي

Approval Letter

To, انسام عبيد تايه

The Research Ethics committee at the **University of Babylon, College of Nursing** has reviewed and discussed your application to conduct the research study entitled **" Mothers' Misconceptions and Traditional Practices toward Infant Teething Symptoms".**

The Following documents have been reviewed and approved:

1. Research protocol
2. Research instrument/s
3. Participant informed consent

Committee Decision.

The committee approves the study to be conducted in the presented form. The Research Ethics committee expects to be informed about any changes occurring during the study, any revision in the protocol and participant informed consent.

Prof. Dr. Shatha Saadi Mohammed
Chair Committee
College of Nursing
Research Ethical Committee
24 / 1 /2023

Appendix(A2): Administrative Arrangements

Ministry of Higher Education and Scientific Research

وزارة التعليم العالي والبحث العلمي

University of Babylon
College of Nursing

جامعة بابل
كلية التمريض
شعبة الدراسات العليا

Ref. No. :
Date: / /

العدد : ٥٤٦٣
التاريخ : ٢٠٢٣ / ٢ / ٨

الى / دائرة صحة بابل/ مركز التدريب والتطوير
م/ تسهيل مهمة

تحية طيبة :

يطيب لنا حسن التواصل معكم ويرجى تفضلكم بتسهيل مهمة طالبة الماجستير (انسام عبيد تايه) لغرض جمع عينة دراسة الماجستير والخاصة بالبحث الموسوم:

المفاهيم الخاطئة والممارسات التقليدية لدى الامهات اتجاه اعراض التسنين عند الاطفال الرضع .

Mothers' Misconceptions and Traditional Practices Toward Infant Teething Symptoms .

مع الاحترام ...

المعاون العلمي

ا. د. نهاد محمد قاسم
معاون العميد للشؤون العلمية والدراسات العليا
٢٠٢٣/٢/ ٨

المرافقات //
- بروتوكول.
- استبانة.

صورة عنه الى //
- مكتب السيد العميد للتفضل بالاطلاع مع الاحترام .
- شعبة الدراسات العليا
- الصادرة .

E-mail:nursing@uobabylon.edu.iq

STARS

وطني 07711632208
المكتب 009647711632208

www.uobabylon.edu.iq

Appendix(A3): Administrative Arrangements

جمهورية العراق

ديوان محافظة بابل
دائرة صحة بابل
قطاع مركز الحلة الثاني
شعبة الموارد البشرية
العدد : ٢٤ / ٢٤٤ / ١٧
التاريخ : ١٣ / ٢ / ٢٠٢٣

الى / م . ص الكوثـر
م . ص بابل التدريبي
م . ص النهضة / م . ص القاضية / م . ص الزهراء

م / تسهيل مهمة

تحية طيبة ..

أشارة الى كتاب دائرة بابل / مركز التدريب والتنمية البشرية / وحدة أدارة البحوث ذي العدد ٢٩٧ في ٢٠٢٣/٢/١٢ .. نرجو تسهيل مهمة طالبة الدراسات العليا / ماجستير / أنسام عبيد تايه / من خلال توقيع وختم أستمارات أجراء البحث ٠٠

مع الشكـر ٠٠

١١

الطبيب الأختصاص
مروان هشام عبد العزيز
مدير قطاع الحلة الثاني
/ ٢ / ٢٠٢٣

الدكتورة
رؤى عادل الموسوي
طبيبة اختصاص

نسخة منه الى :-
جامعة بابل / كلية التمريض / الدراسات العليا المرقم ٥٤٦ في ٢٠٢٣/٢/٨ للعلم مع الاحترام
التعليم الطبي للعلم
الافراد

زينب

Appendix(A4): Administrative Arrangements

جمهورية العـــراق

Ministry Of Health Babylon Health Directorate Email:- Babel_Healthmoh@yahoo.com Tel:282628 or 282621		وزارة الصحة والبيئة دائرة صحة محافظة بابـــل المديـــر العـــام مركـــز التدريب والتنمية البشرية لجنة البحوث

استمارة رقم :- ٢٠٢١/٠٣

رقم القرار :- ١٧
تاريخ القرار :- ١٠/ ١/ ٢٠٢٣

قرار لجنة البحوث

تحية طيبة ...

درست لجنة البحوث في دائرة صحة بابل مشروع البحث ذي الـرقم (٢٠٢٣/٠٢٥/ بابل) المعنون (المفاهيم الخاطئة والممارسات التقليدية لدى الأمهات اتجاه أعراض التسنين عند الأطفال الرضع)
والمقدم من الباحثة (أنسام عبيد تايه) إلى وحدة أدارة البحوث والمعرفي مركز التدريب والتنمية البشرية في دائرة صحة بابل بتاريخ ٢٠٢٣/٢/١٤ وقررت :

قبول مشروع البحث أعلاه كونه مستوفيا للمعايير المعتمدة في وزارة الصحة والخاصة بتنفيذ البحوث ولا مانع من تنفيذه في مؤسسات الدائرة .

مـــــع الاحتـــرام

وزارة الصحة
دائرة صحة بابل
مركز التدريب والتنمية البشرية
لجنة البحوث

الـدكتور
محمد عبد الله عجرش
رئيس لجنة البحوث
٢٠٢٣/ /

نسخة منه إلى :
- مكتب المدير العام / مركز التدريب والتنمية البشرية / وحدة إدارة البحوث ... مع الأوليات.

سونان

Appendix(B): Questionnaire

عزيزتي الام

بين يديك استبانة لدراسة :

" المفاهيم الخاطئة والممارسات التقليدية لدى الامهات اتجاه عملية التسنين عند الاطفال الرضع "

"Mothers' Misconceptions and Traditional Practices Toward Infant Teething process" .

لذا يرجى تفضلكم بملئ المعلومات المتعلقة بالبحث اعلاه ، واود اعلام حضراتكم بان

المعلومات التي ستدلون بها في غاية السرية ، وفقط لاغراض البحث العلمي خدمة للصالح

العام .

توافق بالمشاركة

نعم ☐

لا ☐

الباحثة :

انسام عبيد تايه

ماجستير تمريض اطفال

كلية التمريض / جامعة بابل

Appendix(B): English Questionnaire

1st part: Socio Demographical characteristics:

A: - For mother

1- Age: - ☐ Year

2. Level of education: -

illiterate ☐ Read and write ☐ Elementary ☐

Secondary school ☐ Institutes and above ☐

3. Occupational Status:

Employ ☐ Housewife ☐

4. Residence: -

Rural ☐ Urban ☐

5. Number of children

☐ 1 child ☐ 2-3 child ☐ren 4and more than

6. Economic state of family

In-sufficient ☐ Sufficient for some extent ☐

Sufficien ☐

7-Are you have information about teething? yes ☐ No ☐

If yes; the Source of teething information:

Family Members ☐ Internet ☐ Media ☐

Doctor ☐ Nurse ☐ Other ☐

B: for the child

1. Age:

<1 year ☐ 1-2 year ☐ ≥ 3 year ☐

2-Gender :- Male ☐ Female ☐

3-Type of feeding:-

Breastfeeding ☐ Bottle feeding ☐ Mixed ☐

2nd part: A-Mothers' conception of teething

No.	Items	I know	Not sure	I don't know
1	The babies' teeth start to erupt around 6–10 months of Age.			
2	The first teeth to appear in the mouth are the lower central incisors			
3	The eruption of teeth gets completed at approximately 3 years of age			
4	Delayed eruption of teeth may be an indication of the presence of systemic disease			
5	Non-treated teething symptoms cause poor growth and severe illness			
6	Medication should be according to prescription.			
7	The lancing technique is used by the surgeon when the teething is late.			
8	Mild increase in temperature is a symptom of teething.			
9	Caring for the primary teeth helps to give the permanent teeth a healthy start.			
10	Seizures, vomiting, or diarrhea are never normal signs of teething.			
11	Earache is never a normal sign of teething.			

B: Misconceptions of mothers toward teething symptoms

No.	Symptoms	Agree	Not sure	Disagree
1	Fever			
2	Diarrhea			
3	Vomiting			
4	Irritability			
5	Poor appetite			
6	Drooling of saliva			
7	Weight loss			
8	Cold and cough			
9	Conjunctivitis			
10	Increase oral temperature			
11	Ear problem			
12	Pale			
13	Thrush			
14	Difficult sleeping			
15	Biting on a hard object			

3rd part: Mothers' Traditional Practices during Teething process

No.	Items	Always	Sometimes	Never
1	Visit the physician if there is any complication during the teething process.			
2	Use a cold compress for the child when getting a fever.			
3	Give the child plenty of fluid to prevent dehydration.			
4	Give the child paracetamol to relieve pain.			
5	Rubbing the gum with garlic.			
6	Giving a clean pacifier to relieve pain.			
7	Using herbs during teething.			
8	Allow the child to bite on a chilled object.			
9	Allow bottle feeding or nursing at night.			
10	Apply topical analgesics (painkillers) to the gums.			
11	Consult grandmother about teething symptoms.			
12	Giving the child tonics such as calcium.			
13	Giving the child vitamin D3 or multivitamins			
14	Expose the child to sunlight.			

Appendix(B): Arabic Questionnaire

الجزء الأول :الخصائص الاجتماعية الديموغرافية

أولا: الام

1.العمر ☐ **سنة**

2. المستوى التعليمي للام: -

امية ☐ تقرا وتكتب ☐ خريجة ابتدائية ☐

خريجة ثانوية ☐ دبلوم فأعلى ☐

3.مهنة الام- :

تعمل ☐ ربه بيت ☐

4. السكن- :

ريف ☐ مدينة ☐

5. عدد الاطفال:

طفل واحد ☐ 2-3 أطفال ☐ 4 اطفال او اكثر ☐

6.مستوى الدخل

لا يكفي ☐ يكفي الى حد ما ☐ يكفي ☐

7-هل لديك معلومات عن التسنين: **نعم** ☐ **لا** ☐

اذا كان الجواب نعم : مصدر المعلومات عن التسنين

أفراد العائلة ☐ الانترنيت ☐ التلفزيون ☐

الطبيب ☐ الممرضة ☐ أخرى ☐

ثانيـــا: الطفل

1.العمر: اقل من 1 سنه ☐ 1-2سنه ☐ اقل من او يساوي3سنة ☐

2. الجنس: ذكر ☐ انثى ☐

3. نوع الرضاعة: رضاعة طبيعية ☐ قنينة ☐ مختلط ☐

الجزء الثاني: أ- مفاهيم الأمهات حول التسنين

ت	الفقرات	اعرف	غير متأكد	لا اعرف
1	أسنان الأطفال تبدأ في الظهور حوالي 6-10 أشهر من العمر			
2	الأسنان الأولى التي تظهر في الفم هي القواطع المركزية السفلية			
3	يكتمل ظهور الأسنان في حوالي 3 سنة من العمر			
4	قد يكون تأخر بروز الأسنان مؤشرا على وجود مرض عضوي			
5	أعراض التسنين التي لا يتم علاجها تسبب ضعف النمو والمرض الشديد			
6	استعمال الدواء يجب أن يكون وفقا لوصفة طبية			
7	تعتبر تقنية الوخز احدى الطرق التي يستخدمها الجراحين عند تأخر ظهور الاسنان			
8	ارتفاع الحرارة بشكل بسيط هي أحد أعراض التسنين			
9	تساعد العناية بالأسنان الأولية على إعطاء الأسنان الدائمية بداية صحية.			
10	الاختلاجات أو القيء أو الإسهال ليست علامات طبيعية للتسنين			
11	وجع الأذن لا يعتبر علامة طبيعية للتسنين			

ب: مفاهيم الأمهات الخاطئة تجاه أعراض التسنين

ت	الاعراض	اوافق	غير متأكد	لا اوافق
1	الحمى			
2	الاسهال			
3	التقيؤ			
4	عدم الراحة			
5	ضعف الشهية			
6	سيلان اللعاب			
7	فقدان الوزن			
8	البرد والسعال			
9	التهاب الملتحمة			
10	زيادة درجة حرارة الفم			
11	مشاكل الاذن			
12	شحوب			
13	القلاع (عدوى بالفم تتسبب بها فطريات)			
14	صعوبة النوم			
15	العض على جسم صلب			

الجزء الثالث: ممارسات الأمهات التقليدية اثناء عملية التسنين

ت	الفقرات	دائما	بعض الاحيان	ابدا
1	تأخذ طفلك الى الطبيب إذا كان مضطرب او غير مرتاح			
2	استخدام كمادات باردة عن ارتفاع درجة حرارة الطفل			
3	اعطاء الطفل الكثير من السوائل لمنع الجفاف			
4	اعطاء الطفل الباراسيتامول لتخفيف الالم			
5	فرك اللثة مع الثوم			
6	اعطاء المصاصة لتخفيف الالم			
7	استخدام الاعشاب اثناء التسنين			
8	السماح للطفل بالعض على شيء بارد			
9	السماح بالرضاعة الطبيعية او من الزجاجة في الليل			
10	تطبيق المسكنات الموضعية (مسكنات الالم) على اللثة			
11	اخذ المشورة من الجدة حول اعراض التسنين			
12	اعطاء الطفل مقويات مثل الكالسيوم			
13	اعطاء الطفل فيتامين دي ثري او فيتامينات متعددة			
14	تعريض الطفل لأشعة الشمس			

Appendix(B): Questionnaire

استبانة الخبراء والمحكمين

بِسْمِ اللَّهِ الرَّحْمَٰنِ الرَّحِيمِ

السيد/ة الخبير المحترم

تحيه طيبه .....

نظرا لما تمتلكه من خلفيه ومكانه علميه وخبرة عمليه في مجال اختصاصك يرجى التفضل

بمراجعه ورقة االستبانة المرفقه والخاصه برساله الماجستير الموسومه :

(Mothers' Misconceptions and Traditional Practices Toward Infant Teething process)

(المفاهيم الخاطئة والممارسات التقليدية لدى الامهات اتجاه عملية التسنين عند الاطفال الرضع)

Objectives of the study

Aimed to:

- Identify the mothers' conceptions and misconceptions toward teething.
- Identify traditional practices of mothers toward symptoms.
- Find out the relationship between the socio-demographic conceptions, misconceptions, and traditional practices of mothers about teething.
- Determine the correlation between conceptions and misconceptions and with traditional practices of the mothers.

ولكم فائق الشكر واالحترام

اسم الخبير..... الباحث : انسام عبيد تايه

اللقب العلمي ..... ماجستير تمريض اطفال

مكان العمل ..... اشراف: ا.م.د وفاء احمد امين

سنوات الخبرة ..... جامعه بابل /كليه التمريض

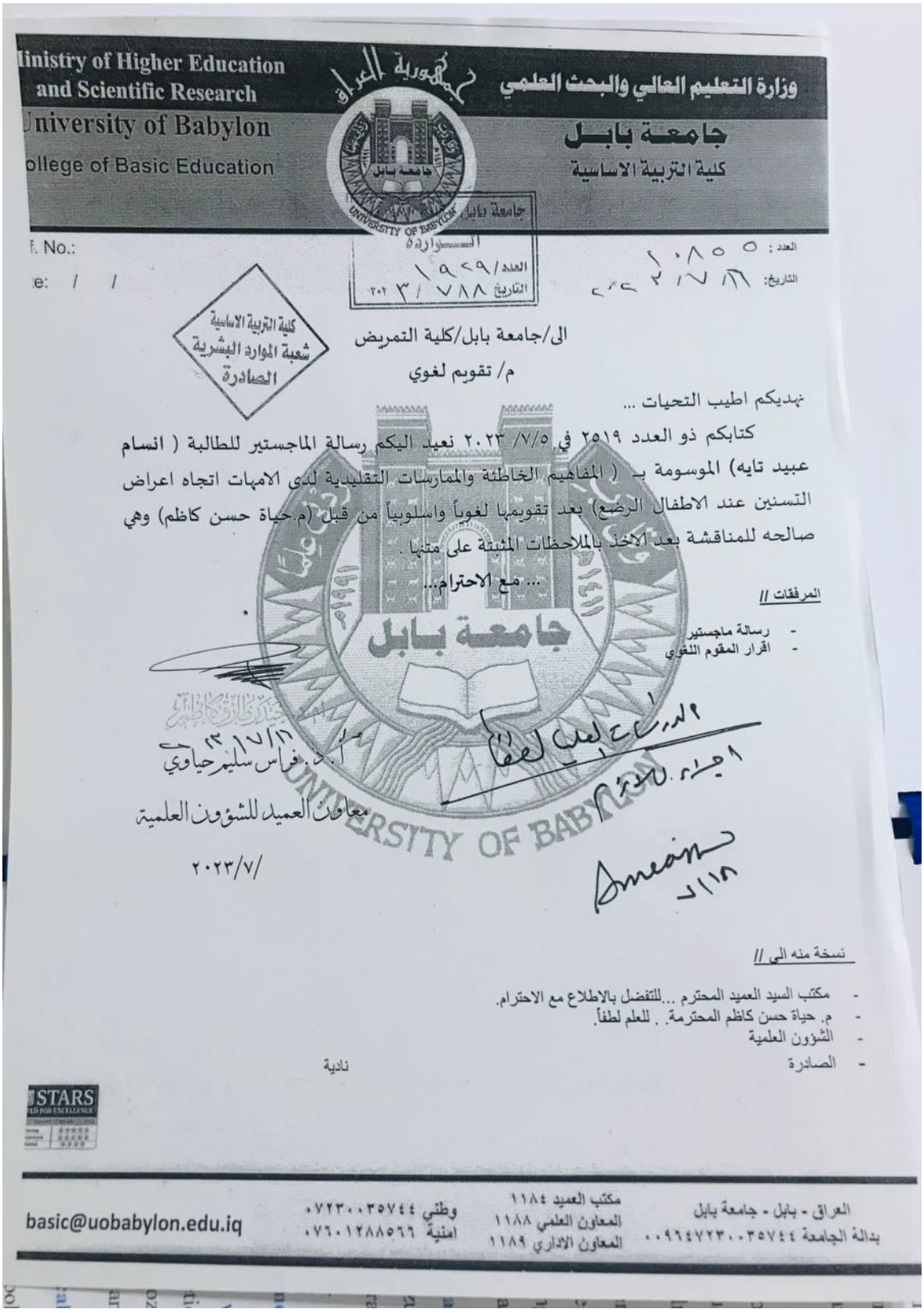
التوقيع .....

Appendix (c) Panel of Expert

ت	اسم الخبير	الاختصاص	اللقب العلمي	مكان العمل	سنوات الخدمة
1	د. سعدية هادي حميد	تمريض صحة الام والرضيع	استاذ	كلية المستقبل الجامعة/قسم التمريض	42
2	د. عبد المهدي عبد الرضا حسن	تمريض الصحة النفسية	استاذ	جامعة بابل/كلية التمريض	41
3	د. عفيفة رضا عزيز	تمريض اطفال	استاذ	جامعة بغداد/كلية التمريض	41
4	د. سلمى كاظم جهاد	تمريض صحة المجتمع	استاذ	جامعة بابل/كلية التمريض	40
5	د.امين عجيل ياسر	تمريض صحة الأسرة والمجتمع	استاذ	جامعه بابل /كليه التمريض	38
6	د.يحيى عبدالشهيد عبدالله	دكتوراه طب اطفال	استاذ	جامعه بابل/ كليه الطب	37
7	د.نهاد محمد قاسم	تمريض اطفال	استاذ	جامعه بابل / كليه التمريض	35
8	د. سحر أدهم علي	تمريض بالغين	استاذ	جامعة بابل/كلية التمريض	31
9	د.مضر حسن نور الاعرجي	دكتوراه طب اطفال	استاذ	جامعه بابل/ كليه الطب	31
10	د. هالة سعدي عبد الواحد	تمريض صحة مجتمع	استاذ	جامعة بغداد/كلية التمريض	29
11	د. ختام مطشر حطاب	تمريض صحة الطفل	استاذ	جامعة بغداد/كلية التمريض	26
12	د. خميس بندر عبيد	تمريض اطفال	استاذ	جامعة كربلاء /كلية التمريض	24
13	د.محمد باقر حسن	تمريض اطفال	استاذ مساعد	جامعه الكوفة /كليه التمريض	18
14	د. احمد عبدالله عبد	تمريض صحة الطفل	أستاذ مساعد	جامعة ذي قار/كلية التمريض	13
15	د.محمد طالب عبد حمادي	تمريض اطفال	مدرس	جامعه بابل/ كليه التمريض	10

Appendix (D):

قرار مقوم اللغوي



وزارة التعليم العالي والبحث العلمي
جمهورية العراق
Ministry of Higher Education and Scientific Research
جامعة بابل
University of Babylon
كلية التربية الاساسية
College of Basic Education

العدد: ١٠٨٥٥
التاريخ: ٢٠٢٣/٧/١٦

الصادرة
العدد/ ١٩٢٩
التاريخ ٢٠٢٣/٧/٨٨

كلية التربية الاساسية
شعبة الموارد البشرية
الصادرة

الى/جامعة بابل/كلية التمريض
م/ تقويم لغوي

نهديكم اطيب التحيات ...

كتابكم ذو العدد ٢٥١٩ في ٢٠٢٣/٧/٥ نعيد اليكم رسالة الماجستير للطالبة (انسام عبيد تايه) الموسومة بـ (المفاهيم الخاطئة والممارسات التقليدية لدى الامهات اتجاه اعراض التسنين عند الاطفال الرضع) بعد تقويمها لغوياً واسلوبياً من قبل (م.حياة حسن كاظم) وهي صالحه للمناقشة بعد الاخذ بالملاحظات المثبتة على متنها .

... مع الاحترام...

المرفقات //
- رسالة ماجستير
- اقرار المقوم اللغوي

جامعة بابل

أ.د. فراس سليم حياوي
معاون العميد للشؤون العلمية
٢٠٢٣/٧/

نسخة منه الى //
- مكتب السيد العميد المحترم ...للتفضل بالاطلاع مع الاحترام.
- م. حياة حسن كاظم المحترمة . للعلم لطفاً.
- الشؤون العلمية
- الصادرة

نادية

STARS

basic@uobabylon.edu.iq
وطني ٠٧٢٣٠٠٣٥٧٤٤
امنية ٠٧٦٠١٢٨٨٥٦٦
مكتب العميد ١١٨٤
المعاون العلمي ١١٨٨
المعاون الاداري ١١٨٩
العراق - بابل - جامعة بابل
بدالة الجامعة ٠٠٩٦٤٧٢٣٠٠٣٥٧٤٤

الخلاصة

قد تؤدي المفاهيم الخاطئة بشأن التسنين بين الأمهات إلى التشخيص الخاطئ وسوء التعامل مع اضطرابات الأطفال التي يحتمل أن تكون خطرة. نتيجة لذلك ، يجب تقييم الافتراضات المتعلقة بالتسنين. تلعب الأمهات دورًا أساسيًا في إدارة صحة الأطفال خلال فترة التسنين بين ستة أشهر وثلاث سنوات. هدفت هذه الدراسة إلى تقييم المفاهيم الخاطئة للأمهات والممارسات التقليدية والارتباط بينهم ومع الخصائص الديموغرافية.

تم إجراء دراسة وصفية في مدينة الحلة خلال الفترة من 20 شباط إلى 16 نيسان 2023. يتكون أسلوب العينة الهادف غير الاحتمالي من 180 من الأمهات اللاتي زرن عيادات الرعاية الصحية الأولية. الاستبانة هي الاداة المستخدمة في جمع البيانات ، وقد تم التحقق من صدق الاستبانة من قبل الخبراء. تم تحليل البيانات من خلال تطبيق التحليل الإحصائي الوصفي والاستنتاجي.

أشارت النتائج إلى أن متوسط عمر المشاركين 28.53 سنة كانوا يعتمدون أحد أفراد الأسرة كمصدر للمعلومات حول أعراض التسنين عند الرضع. هناك علاقة سلبية بين المفاهيم والمفاهيم الخاطئة (* 147- = r) ؛ ووجود ارتباط إيجابي بين المفاهيم والممارسات التقليدية (r = .705 **).

أظهرت النتائج أن تصورات الأمهات والمفاهيم الخاطئة والممارسات التقليدية حول عملية التسنين عند الرضع كانت ضمن مستوى متوسط. اظهرت البيانات ذات دلالة إحصائية من خلال حساب التباين في المتغيرات وفقًا للفئات العمرية المختلفة.

هناك حاجة ماسة للمبادرات التعليمية لتحسين فهم الوالدين لعملية التسنين لدى الأطفال الصغار ومهاراتهم في تربية الأطفال. يجب أن يتلقى الوالدين المساعدة والمشورة حول مكان وكيفية العثور على معلومات موثوقة ومدعومة علميًا حول كيفية معالجة أعراض التسنين.

وِزَارَةُ التَّعْلِيمِ الْعَالِي وَالْبَحْثُ الْعِلْمِيُّ

جـــامـــعَةُ بابـــلِ

كـــلِّيَّةِ التَّمْريـــض

المفاهيم الخاطئة والممارسات التقليدية لدى الامهات اتجاه عملية التسنين عند الاطفال الرضع

رســـالـــة

مقدمة الى جامعة بابل / كلية التمريض / تمريض صحة الطفل
وهي جزء من متطلبات نيل درجة الماجستير في علوم التمريض

من قبل

انسام عبيد تايه

بِإِشْـــرافِ

أ.م. د.وفاء احمد امين

تشرين الاول/2023 مِيلاَدَي ربيع الأول/ 1445 هَجْري