

# “OWOERO”: A HEALTH EDUCATION TOOL TO DISPEL TEETHING MYTHS AND MISCONCEPTIONS – A REPORT

<sup>1</sup>Olubunmi Olusola Bankole, <sup>2</sup>Folake Barakat Lawal, <sup>3</sup>Olushola Ibiyemi

<sup>1</sup>Department of Child Oral Health, Faculty of Dentistry, University of Ibadan, Ibadan, Nigeria and University College Hospital, Ibadan, Nigeria

<sup>2</sup>Department of Periodontology and Community Dentistry, Faculty of Dentistry, University of Ibadan and University College Hospital, Ibadan, Nigeria

<sup>3</sup>Department of Periodontology and Community Dentistry, Faculty of Dentistry, University of Ibadan and University College Hospital, Ibadan, Nigeria

## ABSTRACT

Research findings in Nigeria have revealed that misconceptions about teething is common in the society, particularly among individuals from the lower social class. This prompted the development of a twenty four minute video in a local Nigerian language (Yoruba) titled “Owoero” (meaning “ease”). The video conveys a general message on ease of eruption of teeth in children; void of the long list of perceived symptoms. Videos are powerful communication vehicles and important health education tools. They have been used in many countries and previous researches have shown that videotapes are useful aids in health education. This present video is to serve as a culturally appropriate community dental health education tool, with special focus on nursing mothers and pregnant women particularly in south western Nigeria because of their essential role in oral health care of children. The video also targets people from the lower socioeconomic class due to their poor knowledge and practice of oral health. This article describes the rationale behind the choice of a culturally appropriate health educational video and the process and steps that went into the finished work.

**KEY WORDS:** teething, child, video oral health education.

**RUNNING TITLE:** A health education video on teething.

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## INTRODUCTION

Parents look forward to the eruption of their baby's teeth as one of the important milestones of development. Despite the fact that teething is a natural physiological process, a lot of misconceptions are often associated with the process. Teeth eruption usually commences from 6 months of age and by age 3 years, a child should have a full complement of deciduous teeth.<sup>1</sup>

Over centuries in various cultures teething has been associated with symptoms. Widespread folklore had been built around teething so much that it earned the Latin name *Dentition Difficillis* (difficult dentition).<sup>2</sup> Hippocrates claimed that children experiencing teething suffered from itching gums, fever, convulsions and diarrhea, especially when cutting their

canines<sup>2</sup>. In 1839, 5016 children deaths in England were attributed to teething and it was documented as the cause of 12% of deaths of children younger than 4 years of age<sup>2</sup>. From the 16<sup>th</sup> to the 19<sup>th</sup> century, 50% of infant deaths in France were ascribed to teething<sup>2</sup>.

Globally, in more recent times, various researchers have reported an association between teething and symptoms of fever, diarrhea, sleep disturbances and irritability<sup>3,4,5</sup>.

In Ibadan, Nigeria, 58% of ethnic rural dwellers attributed various ailments such as fever and diarrhea to teething.<sup>6</sup> For example, Uti et al.<sup>7</sup> in their study on maternal beliefs about infant teething in a Lagos slum area, reported that fever (90.3%) and diarrhea (87.3%) were associated with teething. Similarly, Ige and Olubukola<sup>8</sup> while investigating teething myths in Ibadan Nigeria, stated that 51.1%, 51.7% and 51.4% of mothers linked teething to fever, diarrhea and vomiting respectively, in their babies. Furthermore, other researchers have found that Nigerian parents believed that fever<sup>9,10,11</sup> and

**Correspondence to:** Olubunmi O. Bankole  
Department of Child Oral Health,  
University of Ibadan, Ibadan, Nigeria  
**Email :** bumbank2002@yahoo.com  
**Tel:** +234 803 360 7853

diarrhea<sup>11,12,13,14</sup> in their infants meant teething . The outcome of these researches reveal grave misconceptions among Nigerians regarding the teething process.

It is unfortunate that factors perceived to be associated with the teething process in Nigeria, have been thought to be due to natural causes. Asakitipi<sup>15</sup> investigating the diarrhea concept among Yoruba women in Ibadan metropolis, in Nigeria found that women believed diarrhea in children was caused naturally by erupting teeth. The women believed the eruption process cause the body temperature of infants to increase, thereby causing stomach upset and then diarrhea. These women opined that the teething process increased saliva secretion and saliva when swallowed increased child's propensity for loose stools. Mothers in a study on teething reported that diarrhea caused by teething is a cleansing procedure that cleanses the body system of the infant, thus requiring no medical intervention.<sup>8</sup>

The inherent danger of these teething misconceptions is that parents may not seek medical consultation for common childhood ailments during the teething period and administer non prescribed drugs such as analgesics, antibiotics , teething powder/ syrup and traditional concoctions to infants.<sup>16,17</sup> For example in 2008, a national disaster occurred in Nigeria, 84 infants died from consumption of an adulterated teething syrup “*my pickin*” which contained chemicals used in antifreeze and brake fluid to prevent teething problems.<sup>18</sup> Death from ingestion of poisonous teething medicaments may be one of the contributing factors to the nation's child survival rate and the high infant mortality rate of 88/1000 live births (under 1 year).<sup>19</sup>

In Guinea Bissau, Sodemann et al.<sup>20</sup> in a study on management of childhood diarrhea stated that , only a third of parents with severely dehydrated children would seek medical help if they perceived that the dehydration was secondary to teething.

Videos are powerful communication channels and important health education devices.<sup>21</sup> They have been used in many countries to disseminate health education messages to the public. Previous researches have shown that videotapes are useful

aids with high levels of effectiveness<sup>22,23,24,25,26,27</sup> because what is seen is retained better and leaves a long-term impression on the target population.<sup>28</sup>

Using a video tape for health education has many advantages because it demonstrates procedures and concepts that may be difficult to explain or translate in print to the audience. Videos also encourage and emotionally involve an audience, personalizes issues and engage populations which prefer information in the visual format.<sup>21</sup> In addition, videotape instructions are visually stimulating and allow educators to reach large audiences with consistent information<sup>24</sup> since visual memory is more quickly acquired and longer standing than auditory memory<sup>28</sup>

Efforts on prevention of diseases should arise from a knowledge of and a respect for the culture of the target community, since health behaviours are culture related. A study on community empowerment for health promotion among Black Americans and other minority groups showed that interventions should be culturally sensitive and linguistically appropriate to achieve success.<sup>29</sup> People are usually more captivated with health promotion messages in a story set in their own social and cultural context.<sup>30,31</sup> Therefore the authors produced a culturally appropriate video on teething.

The Yoruba language is spoken by the Yoruba tribe in Nigeria who reside in South western Nigeria. Currently, there are no known reports of a health education video in the Yoruba language on teething. This article describes the rationale behind the choice of a culturally appropriate health educational video and the process that went into the finished work.

## BACKGROUND

A twenty four minute video in a local Nigerian language (Yoruba ) titled “*Owoero*” (meaning “ease”) was developed . This video was targeted at local community members (particularly mothers and pregnant women ) from the lower social class since teething misconceptions are common among them. The purpose of this video was to show that teething is a natural physiologic process and is not associated with perceived teething symptoms such as fever ,diarrhea, boils, cough, weight loss, vomiting and conjunctivitis. At about 6 months when a child erupts teeth, passive immunity of a child is reduced due to

reduction in maternal antibodies and infants insertion of unhygienic objects in their mouth when crawling. This information was included in the video as reasons for perceived teething symptoms which is not part of the teething process. Furthermore, information on prompt visit to the doctor when these perceived teething symptoms are noticed was also included. The danger of not seeking prompt medical consultation was emphasized.

Nigeria, Africa's most populous nation now has a vibrant emerging theatre culture, the home movies industry also called Nollywood. This movie industry has produced thousands of films reflecting various aspects of the Nigeria culture and tradition<sup>32</sup> It has been observed that many Nigerians have a preference for Nigerian films in the indigenous languages and they spend long hours watching these films.<sup>33</sup> This is particularly so among those from the lower social class. Using culturally appropriate and sensitive videotape as a health education tool been found effective among Nigerians.<sup>34</sup> The authors believed that the video will be an exciting and more relaxing way to catch the attention of the populace. To enhance the acceptability of this video among the local community and ensure cultural appropriateness, the members of the cast were selected from popular artistes who feature in local home video films in the chosen local Nigerian language (Yoruba).

The development of this video was approved by the Oyo State Research Ethical Review Committee in Ibadan, Nigeria since this video was produced in a sub-urban community of Ibadan, Oyo State, Nigeria.

### CREATING THE STORY

Research findings in Nigeria have revealed misconceptions about teething is common, therefore a seven scene story line was developed by the authors to address this problem. The first five scenes highlighted erroneous beliefs and practices regarding teething among the local populace, while the last two scene showed a public education segment on teething.

In the first scene *baba Sade's* wife returns from the village to their house in the town. Prior to this, *baba Sade* had sent his wife and baby, *Sade* to the village to so that the baby could be given local

immunity called "*ajesara*" to forestall teething symptoms. On their arrival, *mama Sade* narrates how *Sade* was given several cocktails of herbal concoctions. There were also incision marks made on *Sade's* skin particularly the chin by the village witch doctor.

The second scene shows another ill baby who has a very high body temperature. Her mother was perturbed and an older friend advised her to visit a herbalist called "*alagbo*". Special native black soap was compounded and mother was instructed to bath baby with the soap several times a day to treat the baby for diarrhea, boils, fevers and cough, perceived to be caused by teething.

The third scene showed another mother in the community whose baby had develops diarrhea and fever and an older woman nicknamed "*Gbajumo*", in the neighborhood who perceived that the baby had teething symptoms promised to take her to a local patent medicine store where her baby's problem will be solved.

The fourth scene depicted a familiar Nigerian setting where a drug peddler was seen walking around the community advertising a teething drug with a megaphone. The drug peddler was heavily patronized by various nursing mothers as he claimed his wonder drug and herbs cured all teething symptoms

In the fifth scene baby's mother in scene 3 and "*Gbajumo*" arrived at the patent medicine shop and consulted the owner of the shop who prescribed and sold teething powder and teething syrup to cure the febrile child.

The six scene showed the distressed parents of a sick child who had used concoctions and teething powder to alleviate their child's teething symptoms but the child's condition worsened resulting in life threatening conditions. The parents were advised by a neighbor to take the baby for medical consultation and they obliged. The child was treated by the doctor and child's condition improved remarkably. The doctor then explained the causes for perceived teething symptoms and emphasized that the baby's teeth eruption should not be associated with the symptoms. The parents were very glad and they shared the information with other members of the community.

In the seventh scene, mothers and pregnant women were invited for a health education at a local community hospital. Those who attended the health community education programme were counselled by the doctor that teething does not cause fever, diarrhea, boils, cough, vomiting or conjunctivitis. The doctor explained that these symptoms occur when the child is about 6 months of age coinciding with reduction of maternal antibodies thus exposing the child to infections. Also, the doctor advised mothers and pregnant women against self medication and dangerous folk remedies

### *Production of the video*

One of the authors conceptualized a health education idea on teething which was developed into a story in a local Nigerian language (Yoruba). With contributions from the other authors, a title "Owoero" meaning "ease" was coined out of the story conveying information on the ease of tooth eruption void of untoward symptoms. This video was focused on the low socioeconomic class by using their type of environmental setting (Amuloko, a sub urban community in Ibadan, Nigeria); which is in accordance to widespread agreement that health education should be tailored towards the target audience<sup>35</sup>. A professional script writer was employed to write a screen play which was reviewed by two of the authors (a paediatric dentist and a Community dentist) and a lay person. The screen play was redrafted several times to improve dramatization, precision, structure, dialogue and style. The message was put across to the audience in an entertaining way by actors and actresses who wore costumes that mimic dresses worn by the target population.

Several auditions were undertaken and the cast was then selected by the producer with imputes from the authors. A production budget was drawn to cover cost of recording, actors fees, editing and production of the video. Appropriate locations to shoot film were sought and identified by the producer. Locations were checked to ensure that there won't be interruptions or distracting sounds during recording and that there was enough space to get all the camera positions needed. The locations included four different households, a local patent medicine shop and a classroom framed to

look like a community health clinic. These locations were in Amuloko, a suburban district of Ibadan, Oyo State Nigeria.

Permission was obtained from the district head of the local community before film shooting commenced. The scripts were given to the members of the cast to read and understand prior to rehearsals. Costumes typical of the cultural attire of the Yoruba culture were chosen by the production team comprising of the director, producer, technical consultant and authors. Appropriate lights were set for indoor shots.

Initial indoor and outdoor recording were done with digital camera using close, medium and long ranges shots. Initial editing was done and computer generated graphics and sound were included and filming lasted one week. The video was pilot tested for validity by six people comprising a pediatric dentist, a community dentist, community health nurse, and two community members (a cleaner and an office assistant) from the lower social class.

They watched and assessed the video using the following criteria.:

- Is the information (message) clear and understandable?
- Is the language level appropriate to target audience?
- Are the graphics and scenes effective?
- Do the video pictures illustrate content?
- Is the presentation culturally sensitive?

Their comments were noted by the authors and adjustments were effected in the final video production. Adjustments and re filming took another one week.

This article reports the physical process and the steps in the development of the tool and is the first part of a larger study. This video has been shown to nursing mothers and pregnant women in suburban and rural areas its effectiveness is being assessed.

It is intended that this videotape will be translated into the Igbo and Hausa languages, the two other major languages in Nigeria. It is also expected that the storyline can be translated into other African languages in communities where misconceptions about teething is common.

## APPENDIX

*Sade* is a local Yoruba name of a five month old baby girl

*Baba Sade* is phrase meaning Sade's father in the Yoruba language

*Mama Sade* is a phrase meaning Sade's mother in the Yoruba language

*Gbajumo* is a nick name meaning an important person in the Yoruba language

"*Igbo*" language is spoken by the Igbo tribe who reside in Eastern Nigeria

"*Hausa*" language is spoken by the Hausa tribe who are spread across Northern Nigeria

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