

## Review Article

# Complex Factors Associated with Illnesses and Oral Mutilation in a “Vulnerable” African Infant

Hassanali J<sup>1\*</sup> and Kibet P<sup>2</sup><sup>1</sup>Department of Biomedical Sciences, Pwani University, Kenya<sup>2</sup>Community Oral Health Officers, Kenya Medical Training College, Kenya**\*Corresponding author:** Hassanali J, Department of Biomedical Sciences, Pwani University, P.O. Box 165, Kilifi, Kenya**Received:** July 25, 2014; **Accepted:** August 30, 2014; **Published:** September 04, 2014**Abstract**

The review deals with the research amongst the Maasia in Kenya and reports of oral mutilations associated to febrile illnesses in an African infant. Various factors that are implicated in contributing to pastoralist communities seeking oral mutilation or deciduous tooth bud removal as a cure for illness have been reviewed. The immediate and long term hazards of the practice for the infant and child are of concern locally and globally and intervention to deter the practice and awareness of childhood diseases is recommended. This will require multidisciplinary approach to include cultural issues, provision of water, good infrastructure with adequate education and health care facilities.

**Keywords:** Oral mutilation, Cure, Illness, African infant**Abbreviations**

IOM: Infant Oral Mutilation; DCBE: Deciduous Canine tooth Bud Enucleation

**Introduction**

The review aims to address the complex factors that lead to infant oral mutilation as form of treatment for febrile illnesses in an African infant. It covers over 25 years of field research and community interactions and education with the Maasai community in Kenya [1-9] as well as Africa [10-19] and global reports [20-21] on oral mutilation. The literature from the early 1970s to date from Africa has reported on oral mutilations (IOM) and deciduous canine tooth buds enucleation (DCBE) in infants aged 2months to about 2 years to cure illnesses such as diarrhea, fever, respiratory and febrile conditions [1-19].

The African infant is vulnerable to diseases due to several factors and IOM and DCBE are harmful practices that are used to cure febrile illness as the communities believe the developing canine tooth bud is “causing” diarrhea, fevers and growth retardation that affect their infants [22]. The tooth bud is removed using unsterile knives, wires and blades which predisposes the infants to serious complications such as profuse bleeding, HIV infections, swelling and sepsis of the gum wounds that may lead to death [2,4,9]. In the long term, derangement of permanent dentition has been reported [3].

Recent literature from Africa and globally, has advocated awareness of this practice and indicated concern for the outcome for the form of oral mutilations with immediate and long term effects [6,9,18,19].

The complex issues associated with IOM and DCBE to cure febrile illness in the infant are environment, socio-cultural aspects, teething beliefs, poverty, ignorance, poor infrastructure, lack of water and inaccessible health care facilities [4,5,7,9].

The reports of IOM and DCBE are mainly from nomadic, pastoralist communities from East Africa region, Sudan, Ethiopia, Somalia and some parts of Southern Africa. The environment is

arid with lack of water, often poor infrastructure such as roads and health care facility. In addition, there is sparse food source and the community is mainly dependent on the cattle and camels for milk and meat [1-19].

**“Vulnerable child”**

Environmental factors such as hot arid climate, lack of water and poor hygiene often contribute to the child being vulnerable to diseases and the community has poor knowledge on childhood diseases [4,9,22].

Diseases such as gastro intestinal tract infection leading to diarrhea and vomiting, pneumonia, malaria, and water borne diseases are common in these nomadic communities [23]. Malnutrition is common amongst children in the pastoralist communities due to their nomadic way of life whereby nutrition of the child is compromised by lack of certain foods, culturally associated feeding of the child. This often leads to poor immunity and thus making the child more prone to diseases. Study has showed that infants with under nutrition are more prone to undergo DCBE [9]. In addition, cultural beliefs related to teething and teeth expose the child to undergo adverse practices leading to IOM such as gum lancing and DCBE [8,9,22-24]. Apart from the hazards of the practice, the non conventional treatment given to the child may lead to dehydration due to mismanagement or lack of adequate treatment [9,23,24].

In a rural or nomadic/pastoralist setting, nearby person to help alleviate medical condition is the traditional doctor and birth attendant or elders with knowledge of traditional medicine, readily available. This has proved to be beneficial in treating some diseases [4,6]. However, such services are greatly influenced by cultural beliefs which have been a challenge in educating the community, especially in the deterring the practice of IOM and DCBE [6,8]. Poor infrastructure in remote areas such as roads and transport makes seeking conventional treatment difficult for the community. Overall, there is need for concerted efforts to protect the African vulnerable infant [5-7].

**Interventions**

In the early 1990s, the first form of intervention amongst the

Maasai was initiated. This involved community health education through focus group discussion with traditional birth attendants, workshops with teachers and health workers to explain the myth of teething and disease in the infant and harmful effects of IOM and DCBE. School children have also been included in primary child health education. In 2013, Information Education and Communication efforts were used to reach the larger pastoral population. Maasai radio transmission was used in 2005, to reach wider area to educate community on the hazards of IOM and DCBE [4-6,9,17,19]. Presently, various strategies are being used to deter the practice of IOM with local and international input from agencies such as DENTAID and reports and reviews of the practice showing concern for global awareness [20,21,25].

## Conclusion

To achieve behavior change to deter IOM and DCBE in a complex situation will require concerted efforts by health, water, infrastructure and other agencies. There is need to consider socio-cultural factors in the context of poverty, environment and lack of food and water. The communities are slowly undergoing some life style changes and targeting the young population such as school children with knowledge may help to reduce or eradicate this practice.

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