

Oral Health Behaviour Among the Elderly in Osun State, Nigeria

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KEY WORDS Oral health; behaviour; elderly Nigerians; oral hygiene

ABSTRACT Objective: The descriptive study examined the oral hygiene methods utilized by the elderly and recorded reasons for the choice of oral hygiene methods. Setting and Method: The study was conducted in Osun State, Nigeria. A multistage sampling procedure was used for the selection of the traditional core health districts and households, with elderly aged 60 years and above. Data Analysis: Qualitative and quantitative data generated were analysed utilizing descriptive statistical procedures. Main Outcome measure and Results: Findings in the study indicated that the majority of the participants (94%) used the traditional chewing sticks while 183 (61%) combined the use of cotton wool with powder of Chinese plate, salt and ashes as ways of removing plaque. Reasons for the choice ranged from cultural, acceptability, availability, cost, therapeutic effects and a host of others. Conclusion: In conclusion, traditional methods of oral hygiene for cultural reasons will remain a life feature of elderly in Osun State Nigeria, irrespective of improvement in modern oral methods of care.

INTRODUCTION

Healthy teeth require conscientious and effective daily cleaning. A process which mechanically dislodges the bacterial plaque that collects around teeth (Davies, 1993). Concepts of health, disease and health promotion do not exist in a socio-cultural, institutional and political vacuum. They reflect the values, beliefs, knowledge and practices shared by lay people, professional and other influential groups (Noach, 1983).

Political, economic, social, cultural, environmental and biological factors can all favour or be harmful to health. Behaviour is of importance to health either directly through learned life styles or indirectly in the environmental and socio-economic context (WHO, 1995). Personal choice of behaviour can be one of several risk factors acting in combination to cause a disease (for instance, poor diet and smoking both contribute to dental and oral diseases). At the same time, individual and collective behaviour plays an indirect but crucial role in the prevention and control of many diseases.

Therefore, changing people's behaviour requires an understanding of the practice and reasons that underlie it as well as a clear idea of the preferred behaviour. The aim of health promotion policies and programmes should be to stimulate health awareness and responsibility and to advocate conditions, which favour health.

Life-style is defined by (Singer, 1982) as a way of living or the manner in which people conduct their day to day activities. However, in the context of health, life-style has been defined as all those behaviours over which an individual has control, including actions that affect a person's health risks (Ardell, 1979) and as discretionary activities with significant impact on health status that are a regular part of one's daily pattern of living (Wiley and Camacho, 1980).

Health behaviour was first distinguished by (Kash and Cobb, 1966) from illness behaviour and sick-role behaviour. They defined health behaviour in a limited way as "any activity undertaken by a person believing himself to be healthy, for the purpose of preventing disease or detecting it in an asymptomatic state". A considerable body of research has been focused on understanding why and under what circumstances individuals engage in health behaviour directed toward prevention (Kirscht, 1983). Much of that research has been done within the frame work of the health belief model, a paradigm for explaining preventive health behaviour at the level of individual decision making (Becker, 1974; Mikhail, 1981).

It was suggested that health protecting (preventive) and health promoting behaviour might be viewed as complementary components of a healthy life-style and the health promotion model, a paradigm for explaining promotive health behaviour (Pender, 1982). Health-protecting behaviour, an expression of the human stabilizing tendency, is directed toward decreasing the individual's probability of encountering illness. Health-promoting behaviour, an expression of the human actualizing tendency, is directed toward sustaining or increasing the individual's level of

well-being, self actualization and personal fulfillment (Pender, 1982). The health promoting component of one's life-style is a positive approach to living that leads individuals toward realizing their highest potential for well-being. Such a life-style is pursued because it is satisfying and enjoyable, not because of a wish to avoid disease (Ardell, 1979). Hence, what are those expressions of the human actualizing tendency that the elderly direct toward sustaining or increasing the individual's level of oral hygiene and well-being? To what extent had those health promoting component of each elderly's oral health care contributed to their health status?

CONCEPTUAL FRAME WORK

The Conceptual Framework for this study is the Health Belief Model (HBM), which is a psychosocial formulation development to explain health-related behaviour at the level of individual decision-making (Janz and Becker, 1984). According to (Rosenstock, 1974), the HBM proposes that the likelihood that a person will take action relative to oral health condition is determined both by the individuals psychosocial state, readiness to take that action and the perceived need coupled with beliefs about weighing the benefit of such action against the perceived cost or barrier involved in the proposed action. In addition, the model stipulates that a cue to action, internal-external, must occur to trigger the appropriate behaviour. Other factors in the model, which are thought to influence the individual's perceptions of benefits of taking action, are demographic, structural and psychosocial variables (Rosenstock, 1974).

The Health Belief Model has been widely used in studies of preventive health behaviours (Leatherman et al., 1990; Mikhail, 1981). The findings of these studies have shown that perceived barriers to care were the most powerful of the HBM dimensions in explaining or predicting health behaviours. According to (Janz and Becker, 1984), Perceived barriers are "the potential negative aspects of a particular health action that may act as expedients to undertaking the recommended behaviour. The individual elderly is thought to engage in a kind of cost-benefit analysis wherein the benefits of the action are weighted against perceptions that it may be expensive, unpleasant, inconvenient, time-

consuming, of high technology harmful based on cultural beliefs and exercises. If the oral health action is seen as inaccessible, inconvenient, or unpleasant, the elderly person is less likely to take it.

Hence, this study sought to examine the oral health behaviours of the elderly in a changing society and develop sustainable plans for expanding access to and improving the quality of oral health care among the elderly and focused on two critical issues. The study objectives are:

- (i) To examine oral hygiene methods often utilized by the elderly in Osun State, Nigeria and
- (ii) To find out reasons for the choice of oral hygiene methods.

METHODOLOGY

The Study Setting

Ife/Ijesa zone of Yoruba speaking area of South Western Nigeria was chosen for the study. The location comprised 10 different Local Government areas. One traditional health district dominated by indigenes was selected from each of the 10 Local Government areas. Sample Three hundred elderly respondents aged 60 years and above took part in the quantitative aspect of the study. In-depth interviews of about 37 minutes each were further held with 6 significant elders, both literate and illiterate among which were health workers, traditional healers and experienced elderly. The interviews focused on issues such as choice, why and how of choice of methods of oral hygiene. Data Collection Interview administered questionnaire on type of oral hygiene techniques used by the elderly and their reasons for choice of techniques. The qualitative aspect in the form of in-depth interview was to tease more facts out on the advantages of the oral health techniques and choices. Data generated were transcribed and analysed mainly using description statistical procedures.

RESULTS

The study comprised 300 elderly participants aged 60 years and above. The Majority (240 (80%)) of all respondents were aged seventy years and above with age sub group 70-79 year as modal.

The age of the respondents (+ standard de-

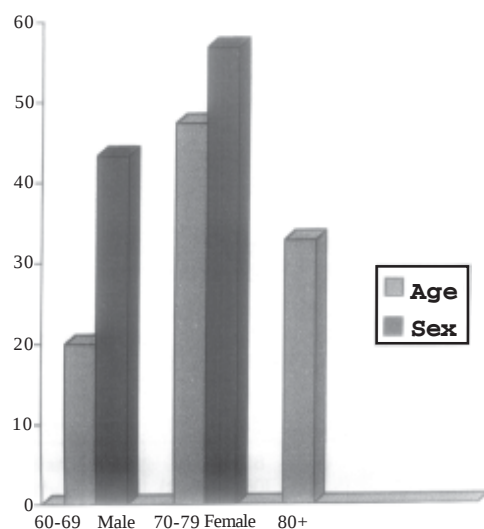


Fig. 1. Demographic characteristics of the participants

viation) was found to be 74.8 ± 10.5 (Range from 64.3 to 85.3) years. One hundred and thirty were males (see Fig. 1). Of the three hundred respondents 160 (53.3%) were married, 126 (42.0%) widowed, 4 (1.3%) divorced, 6 (2.0%) separated and 4 (1.3%) were never married. One hundred and forty five (48.3%) were from rural communities and 155 (51.7%) were from urban settings.

The Majority (94%) have always used traditional chewing stick while 183 (61%) combined the use of Chinese plate powder, salt and ashes with cotton wool. 3(10.3%) had used the modern tooth brush and paste previously, while only 6 (2%) still currently use tooth brush and paste. The minority who utilized the modern oral cleansing methods were less than 65 years of age and had a level of formal education or the other as against the majority 94% who had no formal education (see table 1).

The reasons for the choice of oral hygiene methods, the use of chewing sticks and other traditional techniques, were tied to, cultural (trained with by parents from birth) acceptability, availability, low cost and therapeutic reasons (care for terrible bad odour, hypertension and diabetes etc.) Other reasons adduced to were easier use, cleansing comfort, provision of taste and lack of teeth due to old age. Reasons for the use of tooth brush and paste ranged from information from school and hospital, refreshing odour, educational requirement and having to live with children to assist with care-giving. Of importance was the list of reasons against the use of tooth brush and paste which comprised being painful to teeth, uncomfortable gum reaction, bleeding gum and complexity of its technique of use against the background that the majority (94%) were illiterates.

Table 1: Oral hygiene methods by the educational status of participants

S. No.	Oral Hygiene Methods	Education preparation					
		NFE	PRY	Second	TR. ED.	Others	Total
		n(234)	n(36)	n(14)	n(10)	n(6)	n(300)
1.	Have always used chewing sticks %	234 (100)	29 (80.5)	11 (81.8)	6 (60)	2 (33.3)	282 94
2.	Previously used chewing sticks %	0 (0)	20 (55.5)	9 (64.2)	6 (60)	4 (66.6)	39 15
3.	Chewing sticks as only method %	234 (100)	25 (69.4)	7 (50.0)	6 (60)	2 (33.3)	274 91.3
4.	Chinese plate powder %	45 (19.2)	7 (19.4)	0 (0)	0 (0)	0 (0)	122 40.7
5.	Ashes with cotton wool %	36 (15.4)	11 (30.5)	0 (0)	0 (0)	0 (0)	47 15.7
6.	Salt and Cotton wool %	32 (13.7)	18 (50)	3 (21.4)	1 (10)	0 (0)	54 18.0
7.	Tooth Paste and Brush %	3 (1.3)	7 (19.4)	5 (35.7)	10 (100)	6 (100)	31 10.3
8.	Currently use Tooth brush and paste 0	0 (0)	1 (2.8)	2 (14.3)	2 (2.0)	1 (16.6)	6 2.0

Key: NFE = No Formal Education; PRY = 1st Level Education; SECOND = 2nd Level Education; TR. EDU = Teacher Education; OTHERS = Polytechnic or University

DISCUSSION

The findings from this study indicated that traditional methods of oral hygiene have become an inseparable part of the people's health behaviour despite the advances and improvement in the methods available for the maintenance of oral health and prevention of oral disease. The use of modern oral hygiene methods as revealed in this study was enforced by educational demand and or orientation acquired in the course of parents living with children. This is so because the life style of the participants in this survey have, from birth been guided by their cultural beliefs, customs and values. Care of teeth has been one of the qualities of beauty among the Yorubas and traditional methods and techniques (use of chewing sticks and others) had long been adopted to facilitate plaque removal. Findings here agreed with those of several authors (Akpaté and Akinrimisi, 1991; Olsson, 1978; Enwonwu and Anyanure, 1985) that chewing stick is commonly used in oral hygiene as a way of plaque removal among Africans.

The participants used these types of chewing stick not only for oral hygiene but also for their microbial purposes, mentioned in this study were

- (a) *Massularia acuminata* ("Pako Ijebu") type of chewing stick prepared by the Ijebu people in South Western Nigeria, most especially when used with its back cover.
- (b) *Zanthoxylum zanthoxyloides* ("orin ata") chewing stick with peppery taste.
- (c) *Terminalia glaucescens* ("Orin Idi")
- (d) *Jatropha curcul* (lim) "Lapalapa" is not only anti microbial but also cleans the mouth of fungus infection following malaria attack and chewing stick of almond fruit free is also good for fungi infection. These set of chewing sticks majorly possess therapeutic qualities.

- (i) *Fagara orin ata* is very helpful for the treatment of sickle cell disease
- (ii) *Vernonia Amygdalina* (igi ewuro) very bitter vegetable tree for diabetes and hypertensive control. Findings on the other advantages of the chewing sticks in usage are well suggested by findings of (Enwonwu and Anyanwu, 1985; Sote, 1987; Hollist, 1981) that most plants used as chewing sticks contain fluoride ions and so have anti-microbial,

anti-cariogenic, anti inflammatory, anti-sickling, anti malarial properties.

The reasons why participants used more of traditional methods of oral hygiene than the modern one tally in part with the observed view of (Ogunbodede, 1991) that chewing sticks are readily available and inexpensive. It also agreed with the view of others (Noack, 1993; WHO, 1995) that concepts of health, disease and health promotion do not exist in a socio-cultural, economic and political vacuum. This means that life style, habits and values of people are mainly cultural products as observed by (Fajemilehin, 2000).

Implication for Primary Health Care

In a community where about 90% of the population are illiterates, and over 70% reside in the very rural communities devoid of and modern health care facilities and contact, people's life styles, habits and values will tend to be not only culturally related but culturally restricted. A large percentage by Nigerian utilized various sorts of traditional treatment and other remedies if just for its cost, ready availability accessibility and other culture related factors. Findings in this survey on oral health behaviour of elderly ones are good examples of technologically appropriate concepts that could readily be incorporated into primary oral health care policy programmes in Nigeria. Studies have indicated that the chewing stick can be as effective as the toothbrush and paste for plaque removal if an appropriate technique is adopted for its use (Olsson, 1978; Hollist, 1981; Sote, 1987). Primary dental health care worker should be prepared to adopt local positive oral hygiene methods in health educating the clients and patients, while dangers in other oral life style and habits should be well explained to the clients and patient rather than total condemnation.

RECOMMENDATION

The present study has shown that no amount of modernization can remove the influence of culture on life style, habits and values of people. It is, therefore recommended that the following strategies be adopted not only to increase the access to the elderly but to achieve a sustainable oral health care among them: (i) The nation's

health and social policy should be expanded to incorporate fully traditional methods of care. It will not be out of place to include all technologically appropriate orientation, concepts and behaviour in oral health education programmes (ii) Attempt should be made to expand to rural areas and communities through adequate training of primary oral health workers who are made available at various health posts. (iii) Government should invest more on research on traditional oral hygiene methods and techniques so as to boost its own primary health care services by a way of research break through on local technologically appropriate means of dental services.

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