

CULTURE AND FEEDING PRACTICES: MAJOR UNDERLYING CAUSES OF CHILDHOOD MALNUTRITION IN DEVELOPING COUNTRIES

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Abstract:

This paper examines the prevailing cultural practices that lead to poor infant growth and poor maternal and lactating mothers' nutritional status in sub-Saharan African region (SSAR). The paper reveals that SSAR has the highest maternal, infant and under five mortality rates and protein energy malnutrition (PEM). None of the countries in this region has made any remarkable improvement in reducing these mortality rates and PEM. Contrary to previous and recent investigations that ignorance and poverty are the two major etiologies of PEM and poor growth in SSAR, cultural food habits and infant feeding practices have been identified as major causes of childhood malnutrition. For instance, from cultural point of view, among some major ethnic groups, the concept of healthy child is taking to mean 'fat baby'. In view of this, food items that are believed will increase the size and weight of the baby such as cassava, maize and yam flour are considered good. Because of traditional cultural food practices, legumes and oil seeds such as beans, groundnuts and mellon seeds are sparingly consumed. Nursing mothers in most of the countries in the region have not been making use of existing local food sources as complementary feeds not because of poverty but traditional beliefs and cultural food practices. Unfortunately, the unrestricted and longer duration of breastfeeding that protects infants from early onset of kwashiorkor, strictly adhered to in the past has drastically reduced mainly because of nursing mothers' need to augment family income. The paper recognized that PEM could be prevented in SSAR when food habits are modified or changed. Pregnant and nursing mothers could be encouraged to consume and feed their growing infants with locally available foodstuffs that are cheap and highly nutritious.

Introduction

While cheap and nutritious foodstuffs are readily available in many areas of sub-Saharan Africa region (SSAR), millions of children are chronically malnourished and every year approximately 18 million people, especially children, die from mild to moderate malnutrition (Population Reports, 1997; World Bank, 1996; World Food Programme, 1996, Smith and Haddad, 2000; Aboad, 2002). The number of under-five children suffering from occult or overt malnutrition continues to increase (Smith and Haddad, 2000; Aboad, 2002; Huffman and Martin, 1994; Carlson and Wardlaw, 1990; Ojofeitimi, 1984 and Omololu, Hussain and Mbofung, 1981). According to Carlson and Wardlaw (1990), 150 million children under the age of five in developing countries (except China) were seriously malnourished, another 163 million were stunted, and 35 million were wasted. In fact, several studies have shown that malnutrition was an underlying as well as associated cause of high infant and under five mortality rates in sub-Saharan African countries (SSAR). The commonest form of malnutrition in SSAR is stunting which is an indicator of chronic under nutrition (UNIFECs, 1995; Wray, 1986; Puffeer and Serrano, 1973; Kielman and McCord, 1978; Morley, Martin and Allen, 1967). Undisputedly, inadequacy of quality food items precipitates growth failure, decrease immunity, creates learning disabilities and gives room for easy susceptibility to infection (Aboad, 2002; Kielman and McCord, 1978; Morley, Martin and Allen, 1967; Scrimshaw, Taylor and Gordon, 1968; Bailey, 1975).

In the past two and half decades, poverty and ignorance have been frequently cited in the literature as the major factors predisposing infants and preschool children to protein energy malnutrition (PEM) in SSAR (Aboad, 2002; Joseph, 1985; Kimati, 1986; Scrimshaw, 1964 and Howard, 1994). Very recent and previous findings, however, have

shown that increased income did not necessarily reflect significant changes in the nutritional status of the growing infants in this region (Howard, 1994; Musaiger, 1983; Caldwell, 1979; Johnson and Rogers, 1993; Burgess and Dean, 1962). Even among the poverty stricken people in SSAR, there are locally available legumes and oil seeds that are cheap but of high quality protein and energy.

If poverty and ignorance are not the major contributing factors in the high prevalence of PEM in SSAR what then could have been the latent related underlying causes that have been accorded the immediate action to reduce PEM and lead to low infant mortality rate in SSAR? The paper, therefore addresses the following questions:

- (i) What is the current maternal and infant health status in SSAR?
- (ii) What are the Cultural practices that influence poor or in adequate infant growth and poor maternal and lactating mothers' nutritional status?
- (iii) Is there any break in the traditional child feeding practices that have resulted in poor infant growth?
- (iv) Are there other vital factors that have direct bearing to Cultural food practices?

Based on the above questions suggestions are made for action plan that will improve infant, preschool children, maternal and nursing mothers' nutritional status in SSAR.

Current Maternal and Infant Health Status in SSAR

Prior to discussing the impact of cultural practice as a constraint to proper growth and nutrition of infants, it is important to assess the maternal and infant health since the World Summit for children in 1989. If we accept that infant, under-five child and

maternal mortality rates, percent of underweight and life expectancy at birth are indicators for assessing the health status of infants, pregnant and lactating mothers, then, the region can still be assumed to be still far away from achieving the goal of “Health for All,” even beyond the year 2000. As shown in Table 1 below all the indicators are extremely grave compared to industrialized countries. None of the countries in SSAR has made any remarkable improvement in reducing the under five, infant and maternal mortality rates (Ogunjuyigbe, 2004; UNICEF, 1995; Wray, 1986). Indeed, lack of good quality foods in enough quantity for both mothers and infants are directly the major contributors to these poor vital health statistics.

Table 1: Selected Vital Health Statistics in Some Sub-Saharan Africa Region Compared to Some Industrialized Countries*

Selected Countries	Infant Mortality Rate per 1000 live births	Under 5 Mortality Rate per 1000 live births		Goal 2000	Life Time of Maternal Death (1 in)	% of Under weight Children 1991-1998	Life Expectancy
		1980	1998				
	1998	1980	1998	2000	1997	1991-1998	1998
Nigeria	112	196	187	70	13	36	50.0
Ghana	67	157	105	70	18	27	60.0
Sierra Leone	182	-	316	70	7	29	38.0
Zambia	112	160	202	70	14	24	40.0
Zimbabwe	59	125	89	60	28	15	44.0
Sweden	4	9	4	5	6000	-	79.0
United Kingdom	6	14	6	6	5100	-	77.0
United States	7	15	8	7	3500	1	77.0

**Adapted from UNDP, Human Development Report, 1997 and UNICEF, The progress of Nations, 1993 & 1995. UNICEF 2000 World Bank.*

Up till now, there has not been any significant improvement in reducing occult malnutrition in SSAR. There are numerous nutritious foodstuffs, yet infants, preschool children, pregnant and lactating mothers are suffering in the midst of plenty (Population Reports, 1997). What is it that health experts, health educators, nutritionists and scientists

have failed to nip on thee bud to arrest poor child growth and maternal malnutrition?
Could it be Cultural food practices that are deeply embedded in SSAR?

Prevailing cultural food practices

Of all the causative factors that precipitate high morbidity and mortality rates among infants, preschool children, pregnant and nursing mothers, cultural food practices are the underlying problem. Cultural food practices rather than the frequently mentioned poverty and ignorance should be recognized as vital etiology of PEM in SSAR. Paradoxically, in the countries where PEM is hyper endemic and the economy is bleak, there are always leguminous foodstuffs and oil seeds and fruits that can supply all the essential nutrients that are mostly needed by vulnerable group. But because of traditional cultural food practices, legumes and oil seeds such as beans, groundnuts and mellon seeds are sparingly consumed. Whereas, African continent is one of the major producers of beans and groundnuts, yet, PEM is hyper endemic (Bengoa, 1974). In spite of the nutritive qualities of beans and groundnut (Table 2), it is apparent from Table 3 that the addition of these two rich sources of energy and protein is not given high priority in the infants' diets (McDowell, 1976; Eason, 1986). It can be inferred from Table 3 that the nursing mothers have not made better use of existing local food sources as complementary feeds not because of poverty but traditional beliefs and cultural food practices. Worse still, avoidance of nutritious foodstuffs start from pregnancy to lactation and subsequently transferred to the infants (Aboad, 2002; Musaiger, 1983; Oke and Ojofeitimi, 1984; Ojofeitimi and Teniola, 1980; Ojofeitimi and Olutoye, 1990).

Table 2: Energy and Protein Values of Some of the Local Traditional Foods in the Third World Countries

Foodstuff	Values per 100g portion (Energy Kj)	Kcal	Protein G
Cassava	466	111	0.7
Cocoyam	457	104	2.1
Yam	416	99	1.5
Fufu (Processed Cassava)	78	18	trace
Lafun (Cassava flour)	1340	320	0.6
Gari (Cassava grits)	1150	274	0.8
Grains			
Maize (Yellow Corn)	1550	370	9.6
Guinea Corn (Sorghum)	1460	348	13
Millet	1540	367	7.8
Ogi (Corn gruel)	105	25	0.3
Cowpea	1500	356	27
Groundnut	2420	575	26
Locust bean	1800	430	35
Pigeon bean	1410	336	22
Soyabean	1770	422	41

*Source: Oke and Ojofeitimi (1984)

In Nigeria, for example, the traditional complementary feed among the three major ethnic groups (Hausa, Igbo and Yoruba) is a thin gruel (Corn pap) made from maize, guinea corn or millet (Omololu, 1965; Osuhor, 1980; Kazimu and Kazimu, 1979). This corn pap is the most popular complementary diet in Nigeria for infants from 7 months to 12 months (Ojofeitimi and Abiose, 1996; Omueti and Ogundipe, 1994; Ojofeitimi *et al.*, 1998). The addition of legumes, groundnut paste or high density energy is not part of the cultural food practices (Alakija, 1980). Thus, the proscription of these high density energy and proteineous foodstuffs to infants actually laid the foundation of PEM (Table 3).

Table 3: Summary of Food Items Proscribed to Infants, Pregnant and Lactating Mothers*

Food Items	Reasons for Proscription	Target Group
Milk and Bournvita	Makes baby too heavy	Pregnant mother
Cowpea	Makes baby too heavy	“
Guava	Causes nausea	“
Mango	Produces worms	“
Bitter leaf	Causes dizziness during pregnancy	“
Ebolo	Causes belching at delivery	“
Pumpkin leaf	Causes slit on new born's head	“
Bush meat	Causes animalistic behaviour in the new baby	“
Muton	Fat prevents normal delivery	“
Vegetable Oil	To prevent death of the child as result of Slaves Curse	Lactating Mother
Plantain	Delayed closure of anterior Frontanelle	“
Okra	Slippery, Slimy Stool	“
Snail	Delayed Onset of Walking	“
Beans	Stomach ache in Mother	
Cowpeas	Cases diarrhea, Indigestion and aggravates cough	Infants
Groundnut	Causes Pile and to digest	“
Melon seed	Against family tradition	“
Egg and Meat	Development of expensive taste which may lead to stealing behaviour	“
Meat & Fish	Hard to digest child becoming a thief	“
Meat	Produces worms	“
Cow milk	Causes black stool	“
Coconut	Makes child to be unintelligent	“
Coconut	Causes pile	“
Food rich in fat	Causes colic and diarrhea	“
Cocoyam	Causes hemorrhoids and infertility	“
Banana	Causes dysentery	“

*Sources: Ojofeitimi and Teniola (1980), Ojofeitimi and Tabimowo (1980); Ojofeitimi, Elegbe, and Babafemi (1982); Ojofeitimi & Kolawole (1988); Ojofeitimi, & Olutoye (1990); Musaiger A.O. (19983); Byrne (1962); Aboad (2002)

It is significant to lay emphasis on the fact that most of the foodstuffs commonly prohibited to the infants, pregnant and nursing mothers are not part of the traditional foods generally accepted by the culture (Ojofeitimi and Tanimowo, 1980; Ojofeitimi, Elegbe and Babafemi, 1982; Ogbeide, 1974). Tubers and grains, especially cassava, yam, maize, guinea corn and millet, form the bulk of the complementary diets of most

countries in SSAR. The Yorubas, one of the major tribes in Nigeria has a popular proverb that says, “*Pounded yam is the food, yam flour is medicinal, and in the absence of nothing one eats solidified pap; and to keep the mouth busy one chews pop corn*”. It is apparent from this proverb that tubers and grains are heavily favored. There is no reference to legumes and other oil seeds. Thus, the prohibition of legumes is not due to ignorance but to deep rooted cultural food practices that support food sources from the tubers.

The traditional processing of the thin gruel has been reported in the literature to lead to major nutrient loss which should have added to promotion of infant growth (Ojofeitimi and Abiose, 1996; Omuetti and Ogundipe, 1994; FAO, 1992). The traditional method of processing corn-pap includes sieving the milled corn several times to remove the shaft. Thus sieving has been the major route of nutrient loss (Alakija, 1980 and Akinrele, 1966). In addition to the cultural food practices, break in the traditional prolonged breast feeding also contributes to poor infant growth.

Break in traditional prolonged Breast-Feeding:

Break in the traditional prolonged breast-feeding is also a major factor for failure to thrive and for poor infant nutritional status. The unrestricted and longer duration of breast feeding strictly adhered to in the past actually protected the infants from early onset of kwashiorkor or *marasmus*. This has, however, reduced drastically because of nursing mothers’ need to augment family income by working outside the home (Omololu, 1975; Ojofeitimi, 1981; Jelliffe and Jelliffe, 1983).

Other factors influencing cultural food practices

There are other vital factors that can influence either positively or negatively cultural food practices that may have effect on normal growth of infants in SSAR. Evidence abounds in the literature that maternal education is one of the major determinants in predicting child's survivorship (Smith and Haddad, 2000; Caldwell, 1979; Afolabi, Ojofeitimi and Oke, 1987). Interestingly, in some countries in SSAR where females literacy level is high under five mortality rate decreases irrespective of Gross National Product (World Bank, 1994). It is apparent from Table 4 that under five mortality rate decreases as the female's educational level increases.

Table 4: Under Five Mortality and Level of Female Education In Selected African Countries 1985-1990*

	Educational Level, Under 5 Mortality Rate/1000 live births and Gross National Produce			
Countries	No Formal Education	Primary Education	Secondary Education	G N P Per Capital US\$ 1992
Senegal	225	148	65	780
Uganda	200	151	98	170
Ghana	175	147	140	450
Togo	174	148	70	390
Sudan	150	101	71	420
Kenya	148	75	62	310

**Adapted from Better Health in Africa: World Bank Publication 1994 p.35 and the State of the World's Children 1995 p. 66*

Previous and recent studies have also linked gender differential to nutrition gap in parts to specific food beliefs and practices that tend to reduce women's consumption of highly nutritious food (Smith and Haddad, 2000; Aboad, 2002; Howard, 1994; Backstrand *et al.*, 1997 and World Bank, 1993).

While PEM is preventable in SSAR if hazardous food habits are changed, the concept of healthy child from the cultural point of view should also be corrected. Fat

baby is considered to be healthy, more so, when the stomach is protruded. Consequently, tuber products such as cassava, maize and yam flour are given to infants instead of legumes, leafy green vegetables and fruits.

Finally, nutrition teaching focuses on antenatal care and infants but lactating mothers and preschool children are often neglected in nutrition programme. After all, malnutrition takes a heavy toll on growing children and women, the reproducers, producers, the best resource managers, the health givers and the best paediatricians. Any effective strategy that aims at promoting proper growth and nutrition of infants must take cognizance of provision of adequate nutrition care for children.

Strategies to modify Hazardous Cultural Practices

This paper has attempted to show that cultural food and infant feeding practices are the major causes of poor infant growth in sub-Saharan African rather than poverty and ignorance. The control of constraints to proper growth and nutrition in SSAR needs urgent attention and this can be achieved by motivating pregnant and nursing mothers to consume and feed their growing infants with locally available foodstuffs that are cheap and highly nutritious. But because of deep rooted cultural food practices, such food resources are sparingly consumed or given to the infants. Researches into cultural food practices should be undertaken in collaboration with medical sociologists, and anthropologists, pediatricians and community nutritionists. Compiling different food taboos and beliefs and discouraging those which are hazardous to infant growth is also an important step in finding permanent or solution to Childhood Malnutrition.

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